Order Out of Chaos: Assembly of Ligand Binding Sites in

Annual Review of Biochemistry
71, 435-471
DOI: 10.1146/annurev.biochem.71.110601.135458

Citation Report

#	Article	IF	Citations
1	Location of N-Unsubstituted Glucosamine Residues in Heparan Sulfate. Journal of Biological Chemistry, 2002, 277, 49247-49255.	1.6	58
2	Regulated Translation of Heparan SulfateN-Acetylglucosamine N-Deacetylase/N-Sulfotransferase Isozymes by Structured 5â€²-Untranslated Regions and Internal Ribosome Entry Sites. Journal of Biological Chemistry, 2002, 277, 30699-30706.	1.6	67
3	Nitric Oxide-dependent Processing of Heparan Sulfate in Recycling S-Nitrosylated Glypican-1 Takes Place in Caveolin-1-containing Endosomes. Journal of Biological Chemistry, 2002, 277, 44431-44439.	1.6	72
4	Nuclear Targeting of Macromolecular Polyanions by an HIV-Tat Derived Peptide. Journal of Biological Chemistry, 2002, 277, 38877-38883.	1.6	157
5	Heparan sulfate and development: differential roles of the N-acetylglucosamine N-deacetylase/N-sulfotransferase isozymes. Biochimica Et Biophysica Acta - General Subjects, 2002, 1573, 209-215.	1.1	143
6	Hereditary multiple exostoses and heparan sulfate polymerization. Biochimica Et Biophysica Acta - General Subjects, 2002, 1573, 346-355.	1.1	157
7	Glycosylation of proteins in plants and invertebrates. Current Opinion in Structural Biology, 2002, 12, 569-577.	2.6	153
8	Unlocking the secrets of syndecans: Transgenic organisms as a potential key. Glycoconjugate Journal, 2002, 19, 295-304.	1.4	32
9	The nematode Caenorhabditis elegans as a model to study the roles of proteoglycans. Glycoconjugate Journal, 2002, 19, 325-330.	1.4	11
10	A starting place for the road to function. Glycoconjugate Journal, 2002, 19, 227-237.	1.4	19
11	Glycobiology of the neuromuscular junction. Journal of Neurocytology, 2003, 32, 915-929.	1.6	61
12	Heparan sulfate proteoglycan as a plasma membrane carrier. Trends in Biochemical Sciences, 2003, 28, 145-151.	3.7	289
13	HIP/RPL29 down-regulation accompanies terminal chondrocyte differentiation. Differentiation, 2003, 71, 322-336.	1.0	18
14	Sulfotransferases in glycosaminoglycan biosynthesis. Current Opinion in Structural Biology, 2003, 13, 605-611.	2.6	264
15	Basic peptide system for efficient delivery of foreign genes. Biochimica Et Biophysica Acta - Molecular Cell Research, 2003, 1640, 129-136.	1.9	44
16	Nuclear localization of basic fibroblast growth factor is mediated by heparan sulfate proteoglycans through protein kinase C signaling. Journal of Cellular Biochemistry, 2003, 88, 1214-1225.	1.2	73
17	Chemical Contributions to Understanding Heparin Activity: Synthesis of Related Sulfated Oligosaccharides. European Journal of Organic Chemistry, 2003, 2003, 2999-3024.	1.2	77
18	Efficient Preparation of Three Building Blocks for the Synthesis of Heparan Sulfate Fragments: Towards the Combinatorial Synthesis of Oligosaccharides from Hypervariable Regions. European Journal of Organic Chemistry, 2003, 2003, 3603-3620.	1.2	56

#	Article	IF	Citations
19	Preparation and evaluation of molecularly-defined collagenâ€“elastinâ€“glycosaminoglycan scaffolds for tissue engineering. Biomaterials, 2003, 24, 4001-4009.	5.7	190
20	Caenorhabditis elegans early embryogenesis and vulval morphogenesis require chondroitin biosynthesis. Nature, 2003, 423, 439-443.	13.7	205
21	Chondroitin proteoglycans are involved in cell division of Caenorhabditis elegans. Nature, 2003, 423, 443-448.	13.7	252
22	Syndecans: proteoglycan regulators of cell-surface microdomains?. Nature Reviews Molecular Cell Biology, 2003, 4, 926-938.	16.1	375
23	Efficient selective preparation of methyl-1,2,4-tri-O-acetyl-3-O-benzyl-Î²-l-idopyranuronate from methyl 3-O-benzyl-l-iduronate. Carbohydrate Research, 2003, 338, 681-686.	1.1	19
24	Amyloidogenesis: historical and modern observations point to heparan sulfate proteoglycans as a major culprit. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2003, 10, 67-79.	1.4	138
25	New Set of Orthogonal Protecting Groups for the Modular Synthesis of Heparan Sulfate Fragments. Organic Letters, 2003, 5, 4975-4978.	2.4	65
26	Distinct Effects on Heparan Sulfate Structure by Different Active Site Mutations in NDST-1â€. Biochemistry, 2003, 42, 2110-2115.	1.2	27
27	A Genetic Approach to Mammalian Glycan Function. Annual Review of Biochemistry, 2003, 72, 643-691.	5.0	556
28	Glucosaminylglycan biosynthesis: what we can learn from the X-ray crystal structures of glycosyltransferases GlcAT1 and EXTL2. Biochemical and Biophysical Research Communications, 2003, 303, 393-398.	1.0	56
29	Glypicans. International Journal of Biochemistry and Cell Biology, 2003, 35, 125-129.	1.2	90
30	2003 Claude S. Hudson Award Address in Carbohydrate Chemistry. Heparin:â€‰ Structure and Activity. Journal of Medicinal Chemistry, 2003, 46, 2551-2564.	2.9	460
31	Heparan Sulfate Core Proteins in Cell-Cell Signaling. Annual Review of Genetics, 2003, 37, 461-484.	3.2	137
32	A Two-component System Mediates Developmental Regulation of Biosynthesis of a Heterocyst Polysaccharide. Journal of Biological Chemistry, 2003, 278, 19939-19946.	1.6	41
33	Initiation of the Decorin Glycosaminoglycan Chain in the Endoplasmic Reticulum-Golgi Intermediate Compartment. Journal of Biological Chemistry, 2003, 278, 21415-21420.	1.6	13
34	Heparanase mediates cell adhesion independent of its enzymatic activity. FASEB Journal, 2003, 17, 1015-1025.	0.2	171
35	Perlecan Protein Core Interacts with Extracellular Matrix Protein 1 (ECM1), a Glycoprotein Involved in Bone Formation and Angiogenesis. Journal of Biological Chemistry, 2003, 278, 17491-17499.	1.6	163
36	The Involvement of Heparan Sulfate (HS) in FGF1/HS/FGFR1 Signaling Complex. Journal of Biological Chemistry, 2003, 278, 17121-17129.	1.6	135

#	Article	IF	Citations
37	Identification of a Heparin-Binding Motif on Adeno-Associated Virus Type 2 Capsids. Journal of Virology, 2003, 77, 11072-11081.	1.5	321
38	The Caenorhabditis elegans Genes sqv-2and sqv-6, Which Are Required for Vulval Morphogenesis, Encode Glycosaminoglycan Galactosyltransferase II and Xylosyltransferase. Journal of Biological Chemistry, 2003, 278, 11735-11738.	1.6	75
39	Prion, Amyloid Î²-derived Cu(II) Ions, or Free Zn(II) Ions Support S-Nitroso-dependent Autocleavage of Glypican-1 Heparan Sulfate. Journal of Biological Chemistry, 2003, 278, 38956-38965.	1.6	36
40	Syndecan-1 Transmembrane and Extracellular Domains Have Unique and Distinct Roles in Cell Spreading. Journal of Biological Chemistry, 2003, 278, 46607-46615.	1.6	31
41	The MUR3 Gene of Arabidopsis Encodes a Xyloglucan Galactosyltransferase That Is Evolutionarily Related to Animal Exostosins. Plant Cell, 2003, 15, 1662-1670.	3.1	304
42	Spatial and temporal expression of heparan sulfate in mouse development regulates FGF and FGF receptor assembly. Journal of Cell Biology, 2003, 163, 637-648.	2.3	165
43	Chemoenzymatic Synthesis of Classical and Non-classical Anticoagulant Heparan Sulfate Polysaccharides. Journal of Biological Chemistry, 2003, 278, 52613-52621.	1.6	51
44	Syndecan-1 and -4 Synthesized Simultaneously by Mouse Mammary Gland Epithelial Cells Bear Heparan Sulfate Chains That Are Apparently Structurally Indistinguishable. Journal of Biological Chemistry, 2003, 278, 13561-13569.	1.6	40
45	Glypican-1 Is a Vehicle for Polyamine Uptake in Mammalian Cells. Journal of Biological Chemistry, 2003, 278, 47181-47189.	1.6	143
46	Heparan Sulfate 6-O-Sulfotransferase Is Essential for Muscle Development in Zebrafish. Journal of Biological Chemistry, 2003, 278, 31118-31127.	1.6	79
47	In Vitro Polymerization of Heparan Sulfate Backbone by the EXT Proteins. Journal of Biological Chemistry, 2003, 278, 41333-41337.	1.6	59
48	Oligosaccharide Library-based Assessment of Heparan Sulfate 6-O-Sulfotransferase Substrate Specificity. Journal of Biological Chemistry, 2003, 278, 24371-24376.	1.6	35
49	Dystroglycan glycosylation and its role in matrix binding in skeletal muscle. Glycobiology, 2003, 13, 55R-66.	1.3	83
50	Localization of the permeability barrier to solutes in isolated arteries by confocal microscopy. American Journal of Physiology - Heart and Circulatory Physiology, 2003, 285, H2848-H2856.	1.5	120
51	Glucosaminyl N-deacetylase/N-sulphotransferases in heparan sulphate biosynthesis and biology. Biochemical Society Transactions, 2003, 31, 340-342.	1.6	48
52	Proteoglycans and Brain Repair. Physiology, 2004, 19, 33-38.	1.6	14
53	Heparan Sulfate Synthesized by Mouse Embryonic Stem Cells Deficient in NDST1 and NDST2 Is 6-O-Sulfated but Contains No N-Sulfate Groups. Journal of Biological Chemistry, 2004, 279, 42355-42358.	1.6	89
54	Glycosaminoglycans and the Regulation of Allergic Inflammation. Inflammation and Allergy: Drug Targets, 2004, 3, 221-225.	3.1	23

#	Article	IF	Citations
55	Regulation of Notch signaling by Drosophila heparan sulfate 3-O sulfotransferase. Journal of Cell Biology, 2004, 166, 1069-1079.	2.3	83
56	Molecular Analysis of 10 Coding Regions from Arabidopsis That Are Homologous to the MUR3 Xyloglucan Galactosyltransferase. Plant Physiology, 2004, 134, 940-950.	2.3	74
57	Embryonic Fibroblasts with a Gene Trap Mutation in Ext1 Produce Short Heparan Sulfate Chains. Journal of Biological Chemistry, 2004, 279, 32134-32141.	1.6	52
58	Heparan Sulfate Structure in Mice with Genetically Modified Heparan Sulfate Production. Journal of Biological Chemistry, 2004, 279, 42732-42741.	1.6	222
59	Glycosaminoglycan degradation fragments in mucopolysaccharidosis I. Glycobiology, 2004, 14, 443-450.	1.3	47
60	A Binding Site for Highly Sulfated Heparan Sulfate Is Identified in the N Terminus of the Circumsporozoite Protein. Journal of Biological Chemistry, 2004, 279, 21824-21832.	1.6	80
61	The gammaherpesvirus chemokine binding protein can inhibit the interaction of chemokines with glycosaminoglycans. FASEB Journal, 2004, 18, 571-573.	0.2	43
62	Temperature-sensitive Glycosaminoglycan Biosynthesis in a Chinese Hamster Ovary Cell Mutant Containing a Point Mutation in Glucuronyltransferase I. Journal of Biological Chemistry, 2004, 279, 5693-5698.	1.6	5
63	A New Model for the Domain Structure of Heparan Sulfate Based on the Novel Specificity of K5 Lyase. Journal of Biological Chemistry, 2004, 279, 27239-27245.	1.6	117
64	The heparan sulfate-specific epitope 10E4 is NO-sensitive and partly inaccessible in glypican-1. Glycobiology, 2004, 14, 599-607.	1.3	25
65	Heparanase Uptake Is Mediated by Cell Membrane Heparan Sulfate Proteoglycans. Journal of Biological Chemistry, 2004, 279, 44084-44092.	1.6	149
66	Heparan Sulfate Proteoglycans Function as Receptors for Fibroblast Growth Factor-2 Activation of Extracellular Signalâ€“Regulated Kinases 1 and 2. Circulation Research, 2004, 94, 316-323.	2.0	89
67	Secretion of Heparanase Protein Is Regulated by Glycosylation in Human Tumor Cell Lines. Journal of Biological Chemistry, 2004, 279, 2697-2703.	1.6	62
68	Irreversible Glucuronyl C5-epimerization in the Biosynthesis of Heparan Sulfate. Journal of Biological Chemistry, 2004, 279, 14631-14638.	1.6	37
69	Determining Heparan Sulfate Structure in the Vicinity of Specific Sulfotransferase Recognition Sites by Mass Spectrometry. Journal of Biological Chemistry, 2004, 279, 1861-1866.	1.6	26
70	Heparan Sulfate/Heparin Oligosaccharides Protect Stromal Cell-derived Factor-1 (SDF-1)/CXCL12 against Proteolysis Induced by CD26/Dipeptidyl Peptidase IV. Journal of Biological Chemistry, 2004, 279, 43854-43860.	1.6	172
71	Structural Analysis of the Sulfotransferase (3-O-Sulfotransferase Isoform 3) Involved in the Biosynthesis of an Entry Receptor for Herpes Simplex Virus 1. Journal of Biological Chemistry, 2004, 279, 45185-45193.	1.6	77
72	Crystal Structure and Mutational Analysis of Heparan Sulfate 3-O-Sulfotransferase Isoform 1. Journal of Biological Chemistry, 2004, 279, 25789-25797.	1.6	64

#	Article	IF	Citations
73	Involvement of Glycosylphosphatidylinositol-linked Ceruloplasmin in the Copper/Zinc-Nitric Oxide-dependent Degradation of Glypican-1 Heparan Sulfate in Rat C6 Glioma Cells. Journal of Biological Chemistry, 2004, 279, 12918-12923.	1.6	28
74	A Novel Strategy for Defining Critical Amino Acid Residues Involved in Protein/Glycosaminoglycan Interactions. Journal of Biological Chemistry, 2004, 279, 54327-54333.	1.6	44
75	Amyloidogenesis recapitulated in cell culture: a peptide inhibitor provides direct evidence for the role of heparan sulfate and suggests a new treatment strategy. FASEB Journal, 2004, 18, 1749-1751.	0.2	62
76	Interactions of heparin/heparan sulfate with proteins: Appraisal of structural factors and experimental approaches. Glycobiology, 2004, 14, 17R-30R.	1.3	231
77	An External Loop Region of Domain III of Dengue Virus Type 2 Envelope Protein Is Involved in Serotype-Specific Binding to Mosquito but Not Mammalian Cells. Journal of Virology, 2004, 78, 378-388.	1.5	202
78	Detection of 2-O-Sulfated Iduronate and N-Acetylglucosamine Units in Heparan Sulfate by an Antibody Selected against Acharan Sulfate (IdoA2S-GlcNAc). Journal of Biological Chemistry, 2004, 279, 38346-38352.	1.6	21
79	Production of N-sulfated polysaccharides using yeast-expressed N-deacetylase/N-sulfotransferase-1 (NDST-1). Glycobiology, 2004, 14, 1217-1228.	1.3	19
80	A small-molecule switch for Golgi sulfotransferases. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16715-16720.	3.3	27
81	Heparanase as a molecular target of cancer chemotherapy. Cancer Science, 2004, 95, 553-558.	1.7	61
82	The elusive malaria sporozoite in the mammalian host. Molecular Microbiology, 2004, 54, 298-306.	1.2	32
83	Heparan sulfate proteoglycans in glomerular inflammation. Kidney International, 2004, 65, 768-785.	2.6	112
84	When sugars guide axons: insights from heparan sulphate proteoglycan mutants. Nature Reviews Genetics, 2004, 5, 923-935.	7.7	108
85	Cellobiose phosphorylase from Cellulomonas uda: gene cloning and expression in Escherichia coli, and application of the recombinant enzyme in a â€˜glycosynthase-typeâ€™ reaction. Journal of Molecular Catalysis B: Enzymatic, 2004, 29, 241-248.	1.8	31
86	Strategies for drug discovery by targeting sulfation pathways. Drug Discovery Today, 2004, 9, 967-975.	3.2	42
87	Heparan sulfate proteoglycan mediates the selective attachment and internalization of serotype 3 human adenovirus dodecahedron. Virology, 2004, 321, 332-340.	1.1	43
88	The roles of enzyme localisation and complex formation in glycan assembly within the Golgi apparatus. Current Opinion in Cell Biology, 2004, 16, 356-363.	2.6	94
89	Sulfation pattern in glycosaminoglycan: Does it have a code?. Glycoconjugate Journal, 2004, 21, 47-52.	1.4	194
90	Reconstituted type V collagen fibrils as cementing materials in the formation of cell clumps in culture. Cell and Tissue Research, 2004, 318, 343-352.	1.5	11

#	Article	IF	Citations
91	The never-ending story of peptide O -xylosyltransferase. Cellular and Molecular Life Sciences, 2004, 61, 794-809.	2.4	56
92	Novel aspects of glypican glycobiology. Cellular and Molecular Life Sciences, 2004, 61, 1016-1024.	2.4	111
93	Crystallization and preliminary X-ray analysis of heparinase II fromPedobacter heparinus. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1644-1646.	2.5	7
94	Sulfotransferases: Structure, Mechanism, Biological Activity, Inhibition, and Synthetic Utility. Angewandte Chemie - International Edition, 2004, 43, 3526-3548.	7.2	353
95	Sulfatases: Structure, Mechanism, Biological Activity, Inhibition, and Synthetic Utility. Angewandte Chemie - International Edition, 2004, 43, 5736-5763.	7.2	338
96	Heparan sulfate proteoglycans: Coordinators of multiple signaling pathways during chondrogenesis. Birth Defects Research Part C: Embryo Today Reviews, 2004, 72, 69-88.	3.6	43
99	Differential expression of heparan sulfate 6-O-sulfotransferase isoforms in the mouse embryo suggests distinctive roles during organogenesis. Developmental Dynamics, 2004, 231, 782-794.	0.8	45
100	Intracellular proteoglycans. Biochemical Journal, 2004, 379, 217-227.	1.7	133
101	Analysis of the interaction between adeno-associated virus and heparan sulfate using atomic force microscopy. Glycobiology, 2004, 14, 969-977.	1.3	28
102	Role of Glycosaminoglycans in Cellular Communication. Accounts of Chemical Research, 2004, 37, 431-438.	7.6	271
103	Liquid Chromatography/Mass Spectrometry Sequencing Approach for Highly Sulfated Heparin-derived Oligosaccharides. Journal of Biological Chemistry, 2004, 279, 2608-2615.	1.6	139
104	Distinct and collaborative roles of Drosophila EXT family proteins in morphogen signalling and gradient formation. Development (Cambridge), 2004, 131, 1563-1575.	1.2	206
105	Role of Glycosylation in Development. Annual Review of Biochemistry, 2004, 73, 491-537.	5.0	709
106	Functions of heparan sulfate proteoglycans in cell signaling during development. Development (Cambridge), 2004, 131, 6009-6021.	1.2	569
107	The biosynthesis of anticoagulant heparan sulfate by the heparan sulfate 3-O-sulfotransferase isoform 5. Biochimica Et Biophysica Acta - General Subjects, 2004, 1671, 34-43.	1.1	34
108	Differential Sulfations and Epimerization Define Heparan Sulfate Specificity in Nervous System Development. Neuron, 2004, 41, 723-736.	3.8	236
109	Heparin-Binding Domains in Vascular Biology. Arteriosclerosis, Thrombosis, and Vascular Biology, 2004, 24, 1549-1557.	1.1	185
110	Ext1-Dependent Heparan Sulfate Regulates the Range of Ihh Signaling during Endochondral Ossification. Developmental Cell, 2004, 6, 801-813.	3.1	255

#	Article	IF	Citations
111	Title is missing!. Nippon Nogeikagaku Kaishi, 2004, 78, 856-858.	0.0	0
112	Heparan sulphate proteoglycans modulate fibroblast growth factor-2 binding through a lipid raft-mediated mechanism. Biochemical Journal, 2004, 379, 331-341.	1.7	72
113	Cardiac Development. Methods in Cell Biology, 2004, 76, 455-473.	0.5	15
114	Multiple Osteochondromas: Clinicopathological and Genetic Spectrum and Suggestions for Clinical Management. Hereditary Cancer in Clinical Practice, 2004, 2, 161.	0.6	69
115	Characterization of heparan sulphate 3-O-sulphotransferase isoform 6 and its role in assisting the entry of herpes simplex virus type 1. Biochemical Journal, 2005, 385, 451-459.	1.7	103
116	Modification degrees at specific sites on heparan sulphate: an approach to measure chemical modifications on biological molecules with stable isotope labelling. Biochemical Journal, 2005, 389, 383-388.	1.7	6
117	The kinetics of FGF-2 binding to heparan sulfate proteoglycans and MAP kinase signaling. Journal of Theoretical Biology, 2005, 233, 483-499.	0.8	69
118	Structural Insights into Biological Roles of Protein-Glycosaminoglycan Interactions. Chemistry and Biology, 2005, 12, 267-277.	6.2	381
119	Chemical Approaches to Define the Structure-Activity Relationship of Heparin-like Glycosaminoglycans. Chemistry and Biology, 2005, 12, 731-756.	6.2	127
120	Preparation of a set of selectively protected disaccharides for modular synthesis of heparan sulfate fragments: toward the synthesis of several O-sulfonated [Î²-D-GlcUA-(1â†'4)-Î²-D-GlcNAc]OPr types. Open Chemistry, 2005, 3, 803-829.	1.0	3
121	Impact of polymorphisms in the genes encoding xylosyltransferase I and a homologue in type 1 diabetic patients with and without nephropathy. Kidney International, 2005, 68, 1483-1490.	2.6	15
122	Chondroitin 6-sulphate synthesis is up-regulated in injured CNS, induced by injury-related cytokines and enhanced in axon-growth inhibitory glia. European Journal of Neuroscience, 2005, 21, 378-390.	1.2	169
123	Heparan sulfate and inflammation. Nature Immunology, 2005, 6, 861-862.	7.0	50
124	Endothelial heparan sulfate deficiency impairs L-selectin- and chemokine-mediated neutrophil trafficking during inflammatory responses. Nature Immunology, 2005, 6, 902-910.	7.0	424
125	Heparan sulphate proteoglycans: the sweet side of development. Nature Reviews Molecular Cell Biology, 2005, 6, 530-541.	16.1	608
126	Normal labor associated with changes in uterine heparan sulfate proteoglycan expression and localization. Acta Obstetricia Et Gynecologica Scandinavica, 2005, 84, 217-224.	1.3	11
127	Expression of a heparan sulfate remodeling enzyme, heparan sulfate 6-O-endosulfatase sulfatase FP2, in the rat nervous system. Developmental Brain Research, 2005, 159, 135-143.	2.1	37
128	The Dystroglycanopathies: The New Disorders of O-Linked Glycosylation. Seminars in Pediatric Neurology, 2005, 12, 152-158.	1.0	65

#	Article	IF	Citations
129	Microarray analysis of early adipogenesis in C3H10T1/2 cells: Cooperative inhibitory effects of growth factors and 2,3,7,8-tetrachlorodibenzo-p-dioxin. Toxicology and Applied Pharmacology, 2005, 207, 39-58.	1.3	29
130	Differentiation-induced loss of heparan sulfate in human exostosis derived chondrocytes. Differentiation, 2005, 73, 212-221.	1.0	44
131	Mechanisms of Hedgehog gradient formation and interpretation. Journal of Neurobiology, 2005, 64, 334-356.	3.7	73
132	Enzymatic remodeling of heparan sulfate proteoglycans within the tumor microenvironment: Growth regulation and the prospect of new cancer therapies. Journal of Cellular Biochemistry, 2005, 96, 897-905.	1.2	146
133	Differential expression of proteoglycans at central and peripheral nodes of Ranvier. Glia, 2005, 52, 301-308.	2.5	54
134	D-glucuronyl C5-epimerase acts in dorso-ventral axis formation in zebrafish. BMC Developmental Biology, 2005, 5, 19.	2.1	20
135	Normal labor associated with changes in uterine heparan sulfate proteoglycan expression and localization. Acta Obstetricia Et Gynecologica Scandinavica, 2005, 84, 217-224.	1.3	13
136	Structure and Function of Cell Associated and Pericellular Heparan Sulfate Proteoglycans. , 2005, , 29-54.		0
137	Synthetic Approach to Define Structure-Activity Relationship of Heparin and Heparan Sulfate. , 2005, , 79-142.		8
138	Heparin Activation of Serpins. , 2005, , 367-398.		12
139	Role of Anticoagulant Heparan Sulfate in Mammalian Reproduction. , 2005, , 435-459.		0
140	Perlecan: An Extracellular Matrix Heparan Sulfate Proteoglycan that Regulates Key Events in Vascular Development and Disease. , 2005, , 607-635.		6
141	Role of Heparan Sulfate in Cancer. , 2005, , 699-725.		1
142	Cell Surface Heparan Sulfate Promotes Replication of Toxoplasma gondii. Infection and Immunity, 2005, 73, 5395-5401.	1.0	23
143	Oxidation of heparan sulphate by hypochlorite: role of N-chloro derivatives and dichloramine-dependent fragmentation. Biochemical Journal, 2005, 391, 125-134.	1.7	53
144	Chemokine-Glycosaminoglycan Binding. Journal of Biological Chemistry, 2005, 280, 32200-32208.	1.6	77
145	Heparan 2-O-sulfotransferase, hst-2, is essential for normal cell migration in Caenorhabditis elegans. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 1507-1512.	3.3	78
146	Heparan Sulfate Mimicry. Journal of Biological Chemistry, 2005, 280, 37558-37564.	1.6	49

#	Article	IF	Citations
147	Structural Basis of Citrate-dependent and Heparan Sulfate-mediated Cell Surface Retention of Cobra Cardiotoxin A3. Journal of Biological Chemistry, 2005, 280, 9567-9577.	1.6	30
148	Mice deficient in Ext2 lack heparan sulfate and develop exostoses. Development (Cambridge), 2005, 132, 5055-5068.	1.2	221
149	Matrix proteoglycans as effector molecules for epithelial cell function. European Respiratory Review, 2005, 14, 137-144.	3.0	18
150	Characterizing the Non-reducing End Structure of Heparan Sulfate. Journal of Biological Chemistry, 2005, 280, 33749-33755.	1.6	26
151	Drosophila glypicans Dally and Dally-like shape the extracellular Wingless morphogen gradient in the wing disc. Development (Cambridge), 2005, 132, 667-679.	1.2	190
152	Compositional profiling of heparin/heparan sulfate using mass spectrometry: assay for specificity of a novel extracellular human endosulfatase. Glycobiology, 2005, 15, 818-826.	1.3	93
153	Enzymatic Redesigning of Biologically Active Heparan Sulfate. Journal of Biological Chemistry, 2005, 280, 42817-42825.	1.6	109
154	Endogenous Attenuation of Allergic Lung Inflammation by Syndecan-1. Journal of Immunology, 2005, 174, 5758-5765.	0.4	97
155	Synthesis of Anticoagulantly Active Heparan Sulfate Proteoglycans by Glomerular Epithelial Cells Involves Multiple 3-O-Sulfotransferase Isoforms and a Limiting Precursor Pool. Journal of Biological Chemistry, 2005, 280, 38059-38070.	1.6	28
156	Distinct Substrate Specificities of Bacterial Heparinases against N-Unsubstituted Glucosamine Residues in Heparan Sulfate. Journal of Biological Chemistry, 2005, 280, 15742-15748.	1.6	42
157	Identification of L-selectin Binding Heparan Sulfates Attached to Collagen Type XVIII. Journal of Biological Chemistry, 2005, 280, 26965-26973.	1.6	32
158	Heparin Regulates Vascular Endothelial Growth Factor165-dependent Mitogenic Activity, Tube Formation, and Its Receptor Phosphorylation of Human Endothelial Cells. Journal of Biological Chemistry, 2005, 280, 31508-31515.	1.6	144
159	Two-step Mechanism That Determines the Donor Binding Specificity of Human UDP-N-acetylhexosaminyltransferase. Journal of Biological Chemistry, 2005, 280, 23441-23445.	1.6	11
160	HSulf-1 and HSulf-2 Are Potent Inhibitors of Myeloma Tumor Growth in Vivo. Journal of Biological Chemistry, 2005, 280, 40066-40073.	1.6	122
161	Mechanisms of Cell Growth Regulation by Heparin and Heparan Sulfate. , 2005, , 533-570.		5
162	Cerebral hypoplasia and craniofacial defects in mice lacking heparan sulfate Ndst1 gene function. Development (Cambridge), 2005, 132, 3777-3786.	1.2	176
163	Syndecans. Circulation Research, 2005, 96, 488-500.	2.0	397
164	HSPG synthesis by zebrafish Ext2 and Extl3 is required for Fgf10 signalling during limb development. Development (Cambridge), 2005, 132, 4963-4973.	1.2	124

#	Article	IF	Citations
165	Localization and Functional Characterization of Glycosaminoglycan Domains in the Normal Human Kidney as Revealed by Phage Display-Derived Single Chain Antibodies. Journal of the American Society of Nephrology: JASN, 2005, 16, 1279-1288.	3.0	39
166	Use of Sulfated Linked Cyclitols as Heparan Sulfate Mimetics to Probe the Heparin/Heparan Sulfate Binding Specificity of Proteins. Journal of Biological Chemistry, 2005, 280, 8842-8849.	1.6	54
167	Decorin Core Protein Secretion Is Regulated by N-Linked Oligosaccharide and Glycosaminoglycan Additions. Journal of Biological Chemistry, 2005, 280, 42774-42784.	1.6	33
168	KATAMARI1/MURUS3 Is a Novel Golgi Membrane Protein That Is Required for Endomembrane Organization in Arabidopsis. Plant Cell, 2005, 17, 1764-1776.	3.1	134
169	The human D-glucuronyl C5-epimerase gene is transcriptionally activated through the Î²-cateninâ€“TCF4 pathway. Biochemical Journal, 2005, 390, 493-499.	1.7	14
170	ABILITY OF THE HEPARAN SULFATE PROTEOGLYCAN SYNDECAN-1 TO PARTICIPATE IN BACTERIAL TRANSLOCATION ACROSS THE INTESTINAL EPITHELIAL BARRIER. Shock, 2005, 24, 571-576.	1.0	52
171	Syndecan regulates cell migration and axon guidance in C. elegans. Development (Cambridge), 2005, 132, 4621-4633.	1.2	106
172	Sulf-2, a Proangiogenic Heparan Sulfate Endosulfatase, Is Upregulated in Breast Cancer. Neoplasia, 2005, 7, 1001-1010.	2.3	138
173	Heparan Sulfate:â€‰ A Complex Polymer Charged with Biological Activity. Chemical Reviews, 2005, 105, 2745-2764.	23.0	362
174	Biosynthesis of Heparin and Heparan Sulfate. , 2005, , 203-243.		5
175	REGULATION OF PROTEIN FUNCTION BY GLYCOSAMINOGLYCANSâ€”AS EXEMPLIFIED BY CHEMOKINES. Annual Review of Biochemistry, 2005, 74, 385-410.	5.0	467
176	Identification of Common and Specific Growth Factor Binding Sites in Heparan Sulfate Proteoglycans. Biochemistry, 2005, 44, 12203-12213.	1.2	38
177	Protamine sulfate reduces the susceptibility of thermally injured mice to Pseudomonas aeruginosa infection1. Journal of Surgical Research, 2005, 123, 109-117.	0.8	10
178	Structural characterization of human liver heparan sulfate. Biochimica Et Biophysica Acta - General Subjects, 2005, 1721, 1-8.	1.1	60
179	Characterization of the structure of antithrombin-binding heparan sulfate generated by heparan sulfate 3-O-sulfotransferase 5. Biochimica Et Biophysica Acta - General Subjects, 2005, 1725, 190-200.	1.1	18
180	A role for 3-O-sulfotransferase isoform-4 in assisting HSV-1 entry and spread. Biochemical and Biophysical Research Communications, 2005, 338, 930-937.	1.0	61
181	Sulfated glycosaminoglycans in the extracellular matrix of muscle tissue in Atlantic cod (Gadus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 10 Biochemistry and Molecular Biology, 2005, 140, 349-357.	0.7	26
182	Maternal Wnt11 Activates the Canonical Wnt Signaling Pathway Required for Axis Formation in Xenopus Embryos. Cell, 2005, 120, 857-871.	13.5	454

#	Article	IF	Citations
183	Interaction of chemokines and glycosaminoglycans: A new twist in the regulation of chemokine function with opportunities for therapeutic intervention. Cytokine and Growth Factor Reviews, 2005, 16, 625-636.	3.2	220
184	A unique role for 6-O sulfation modification in zebrafish vascular development. Developmental Biology, 2005, 284, 364-376.	0.9	80
185	Synthesis of 48 Disaccharide Building Blocks for the Assembly of a Heparin and Heparan Sulfate Oligosaccharide Library. Organic Letters, 2006, 8, 5995-5998.	2.4	91
186	The Molecular Diversity of Glycosaminoglycans Shapes Animal Development. Annual Review of Cell and Developmental Biology, 2006, 22, 375-407.	4.0	317
187	Enzymatic synthesis of heparin related polysaccharides on sensor chips: Rapid screening of heparinâ€“protein interactions. Biochemical and Biophysical Research Communications, 2006, 339, 597-602.	1.0	41
188	CS Lyases: Structure, Activity, and Applications in Analysis and the Treatment of Diseases. Advances in Pharmacology, 2006, 53, 187-215.	1.2	50
189	GLYCOMICS APPROACH TO STRUCTURE-FUNCTION RELATIONSHIPS OF GLYCOSAMINOGLYCANS. Annual Review of Biomedical Engineering, 2006, 8, 181-231.	5.7	257
190	Determination of the Substrate Specificities ofN-Acetyl-d-glucosaminyltransferaseâ€. Biochemistry, 2006, 45, 12358-12365.	1.2	47
191	Finding a Needle in a Haystack:Â Development of a Combinatorial Virtual Screening Approach for Identifying High Specificity Heparin/Heparan Sulfate Sequence(s). Journal of Medicinal Chemistry, 2006, 49, 3553-3562.	2.9	68
192	Dromedary glycosaminoglycans: Molecular characterization of camel lung and liver heparan sulfate. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2006, 143, 37-43.	0.7	11
193	Glycosylation in Cellular Mechanisms of Health and Disease. Cell, 2006, 126, 855-867.	13.5	2,348
194	Nothing in Glycobiology Makes Sense, except in the Light of Evolution. Cell, 2006, 126, 841-845.	13.5	219
195	Glycomics investigation into insulin action. Biochimica Et Biophysica Acta - General Subjects, 2006, 1760, 652-668.	1.1	17
196	Coordinated fibroblast growth factor and heparan sulfate regulation of osteogenesis. Gene, 2006, 379, 79-91.	1.0	70
197	Heparan Sulfate in trans Potentiates VEGFR-Mediated Angiogenesis. Developmental Cell, 2006, 10, 625-634.	3.1	220
198	Heparan sulfate proteoglycans including syndecan-3 modulate BMP activity during limb cartilage differentiation. Matrix Biology, 2006, 25, 27-39.	1.5	93
199	The function of a Drosophila glypican does not depend entirely on heparan sulfate modification. Developmental Biology, 2006, 300, 570-582.	0.9	90
200	Nerve injury induces the expression of EXT2, a glycosyltransferase required for heparan sulfate synthesis. Neuroscience, 2006, 141, 1961-1969.	1.1	15

#	Article	IF	Citations
201	Sugar Antennae for Guidance Signals: Syndecans and Glypicans Integrate Directional Cues for Navigating Neurons. Scientific World Journal, The, 2006, 6, 1024-1036.	0.8	21
202	The Biological Importance of Specific Sulfation of Chondroitin Sulfate/Determatan Sulfate in Their Functional Expression. Trends in Glycoscience and Glycotechnology, 2006, 18, 165-183.	0.0	14
203	Cytokines and proteoglycans: an introductory overview. Biochemical Society Transactions, 2006, 34, 409-413.	1.6	88
204	Multiprotein signalling complexes: regional assembly on heparan sulphate. Biochemical Society Transactions, 2006, 34, 438-441.	1.6	64
205	The role of heparan sulphate proteoglycans in angiogenesis. Biochemical Society Transactions, 2006, 34, 451-453.	1.6	93
206	Primary attachment of murine leukaemia virus vector mediated by particle-associated heparan sulfate proteoglycan. Biochemical Journal, 2006, 400, 421-430.	1.7	4
207	Heparanase deglycanation of syndecan-1 is required for binding of the epithelial-restricted prosecretory mitogen lacritin. Journal of Cell Biology, 2006, 174, 1097-1106.	2.3	64
208	HSulf-2, an extracellular endoglucosamine-6-sulfatase, selectively mobilizes heparin-bound growth factors and chemokines: effects on VEGF, FGF-1, and SDF-1. BMC Biochemistry, 2006, 7, 2.	4.4	192
209	A role of local signalling in the establishment and maintenance of the asymmetrical architecture of a neuron. Journal of Neurochemistry, 2006, 101, 600-610.	2.1	1
210	Secretion of proteases in serglycin transfected Madin-Darby canine kidney cells. FEBS Journal, 2006, 273, 536-547.	2.2	14
211	Genetic defects in the human glycome. Nature Reviews Genetics, 2006, 7, 537-551.	7.7	424
212	The role of heparan sulphate in inflammation. Nature Reviews Immunology, 2006, 6, 633-643.	10.6	433
213	Immunohistochemical expression of heparan sulfate correlates with stromal cell proliferation in breast phyllodes tumors. Modern Pathology, 2006, 19, 1344-1350.	2.9	23
214	Synthesis and biological evaluation of gem-diamine 1-N-iminosugars related to l-iduronic acid as inhibitors of heparan sulfate 2-O-sulfotransferase. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 532-536.	1.0	27
215	Effective Targeting of Liposomes to Liver and Hepatocytes In Vivo by Incorporation of a Plasmodium Amino Acid Sequence. Pharmaceutical Research, 2006, 23, 759-769.	1.7	73
216	Isolation and characterization of heparan sulfate from various murine tissues. Glycoconjugate Journal, 2006, 23, 555-563.	1.4	72
217	Spatiotemporal distribution of heparan sulfate epitopes during murine cartilage growth plate development. Histochemistry and Cell Biology, 2006, 126, 713-722.	0.8	6
218	A role for heparan sulfate 3-O-sulfotransferase isoform 2 in herpes simplex virus type 1 entry and spread. Virology, 2006, 346, 452-459.	1.1	71

#	Article	IF	Citations
219	Heparan sulfate proteoglycans and the emergence of neuronal connectivity. Current Opinion in Neurobiology, 2006, 16, 40-51.	2.0	116
220	Aberrant Heparan Sulfate Profile in the Human Diabetic Kidney Offers New Clues for Therapeutic Glycomimetics. American Journal of Kidney Diseases, 2006, 48, 250-261.	2.1	34
221	Combinatorial expression patterns of heparan sulfate sulfotransferases in zebrafish: II. The 6-O-sulfotransferase family. Developmental Dynamics, 2006, 235, 3432-3437.	0.8	29
222	Combinatorial expression patterns of heparan sulfate sulfotransferases in zebrafish: I. The 3-O-sulfotransferase family. Developmental Dynamics, 2006, 235, 3423-3431.	0.8	48
223	Structural specificity in a FGF7-affinity purified heparin octasaccharide required for formation of a complex with FGF7 and FGFR2IIIb. Journal of Cellular Biochemistry, 2006, 97, 1241-1258.	1.2	39
224	Synthesis of a Potential 10E4 Tetrasaccharide Antigen Involved in Scrapie Pathogenesis. Helvetica Chimica Acta, 2006, 89, 2591-2610.	1.0	20
225	Approaching theProteoglycome: Molecular Interactions of Proteoglycans and Their Functional Output. Macromolecular Bioscience, 2006, 6, 667-680.	2.1	24
226	Measuring the Activities of the Sulfs: Two Novel Heparin/Heparan Sulfate Endosulfatases. Methods in Enzymology, 2006, 416, 243-253.	0.4	27
227	Mechanisms of Disease: congenital muscular dystrophiesâ€"glycosylation takes center stage. Nature Clinical Practice Neurology, 2006, 2, 222-230.	2.7	42
228	CHO Glycosylation Mutants: Proteoglycans. Methods in Enzymology, 2006, 416, 205-221.	0.4	47
229	Breaking an impasse in pectin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5639-5640.	3.3	30
230	A focused microarray approach to functional glycomics: transcriptional regulation of the glycome. Glycobiology, 2006, 16, 117-131.	1.3	161
231	Carrageenan Is a Potent Inhibitor of Papillomavirus Infection. PLoS Pathogens, 2006, 2, e69.	2.1	401
232	Heparan Sulphate Proteoglycans and Viral Vectors : Ally or Foe?. Current Gene Therapy, 2006, 6, 35-44.	0.9	33
233	Identification of novel chondroitin proteoglycans in Caenorhabditis elegans: embryonic cell division depends on CPG-1 and CPG-2. Journal of Cell Biology, 2006, 173, 985-994.	2.3	109
234	Substrate Specificity and Domain Functions of Extracellular Heparan Sulfate 6-O-Endosulfatases, QSulf1 and QSulf2. Journal of Biological Chemistry, 2006, 281, 4969-4976.	1.6	136
235	Virulence attenuation of Dengue virus due to augmented glycosaminoglycan-binding affinity and restriction in extraneural dissemination. Journal of General Virology, 2006, 87, 2791-2801.	1.3	61
236	Heparan Sulphation Patterns Generated by Specific Heparan Sulfotransferase Enzymes Direct Distinct Aspects of Retinal Axon Guidance at the Optic Chiasm. Journal of Neuroscience, 2006, 26, 6911-6923.	1.7	122

#	Article	IF	Citations
237	Heparan sulfate biosynthetic gene Ndst1 is required for FGF signaling in early lens development. Development (Cambridge), 2006, 133, 4933-4944.	1.2	96
238	Polygalacturonase-Inhibiting Protein Interacts with Pectin through a Binding Site Formed by Four Clustered Residues of Arginine and Lysine. Plant Physiology, 2006, 141, 557-564.	2.3	88
239	Enzymatically Active N-Deacetylase/N-Sulfotransferase-2 Is Present in Liver but Does Not Contribute to Heparan Sulfate N-Sulfation. Journal of Biological Chemistry, 2006, 281, 35727-35734.	1.6	44
240	Role for 3- O -Sulfated Heparan Sulfate as the Receptor for Herpes Simplex Virus Type 1 Entry into Primary Human Corneal Fibroblasts. Journal of Virology, 2006, 80, 8970-8980.	1.5	111
241	Siglecsâ€"the major subfamily of I-type lectins. Glycobiology, 2006, 16, 1R-27R.	1.3	490
242	The Glycosaminoglycan-Binding Domain of Decoy Receptor 3 Is Essential for Induction of Monocyte Adhesion. Journal of Immunology, 2006, 176, 173-180.	0.4	40
243	3-O-Sulfated Oligosaccharide Structures Are Recognized by Anti-heparan Sulfate Antibody HS4C3. Journal of Biological Chemistry, 2006, 281, 4654-4662.	1.6	94
244	Structural Requirements for Heparin/Heparan Sulfate Binding to Type V Collagen. Journal of Biological Chemistry, 2006, 281, 25195-25204.	1.6	39
245	Heparan Sulfate-related Oligosaccharides in Ternary Complex Formation with Fibroblast Growth Factors 1 and 2 and Their Receptors. Journal of Biological Chemistry, 2006, 281, 26884-26892.	1.6	72
246	Overexpression of Heparan Sulfate 6-O-Sulfotransferases in Human Embryonic Kidney 293 Cells Results in Increased N-Acetylglucosaminyl 6-O-Sulfation. Journal of Biological Chemistry, 2006, 281, 5348-5356.	1.6	12
247	Crystal Structure of Heparinase II from Pedobacter heparinus and Its Complex with a Disaccharide Product*. Journal of Biological Chemistry, 2006, 281, 15525-15535.	1.6	80
248	Ventral Neural Progenitors Switch toward an Oligodendroglial Fate in Response to Increased Sonic Hedgehog (Shh) Activity: Involvement of Sulfatase 1 in Modulating Shh Signaling in the Ventral Spinal Cord. Journal of Neuroscience, 2006, 26, 5037-5048.	1.7	108
249	Serglycin Is the Major Secreted Proteoglycan in Macrophages and Has a Role in the Regulation of Macrophage Tumor Necrosis Factor-Î± Secretion in Response to Lipopolysaccharide. Journal of Biological Chemistry, 2006, 281, 26792-26801.	1.6	69
250	N- and 6-O-Sulfated Heparan Sulfates Mediate Internalization of Coxsackievirus B3 Variant PD into CHO-K1 Cells. Journal of Virology, 2006, 80, 6629-6636.	1.5	49
251	Chondroitin 4-O-Sulfotransferase-1 Regulates E Disaccharide Expression of Chondroitin Sulfate Required for Herpes Simplex Virus Infectivity. Journal of Biological Chemistry, 2006, 281, 38668-38674.	1.6	91
252	Glycopeptides as versatile tools for glycobiology. Glycobiology, 2006, 16, 113R-136R.	1.3	167
253	Glycosaminoglycans and their proteoglycans: hostâ€ associated molecular patterns for initiation and modulation of inflammation. FASEB Journal, 2006, 20, 9-22.	0.2	560
255	Essential Role of Heparan Sulfate 2-O-Sulfotransferase in Chick Limb Bud Patterning and Development. Journal of Biological Chemistry, 2007, 282, 19589-19597.	1.6	19

#	Article	IF	Citations
256	Molecular Mapping and Functional Characterization of the VEGF164 Heparin-binding Domain. Journal of Biological Chemistry, 2007, 282, 28045-28056.	1.6	82
257	Regulation of Secreted Frizzled-related Protein-1 by Heparin. Journal of Biological Chemistry, 2007, 282, 20523-20533.	1.6	36
258	CCR2 Chemokines Bind Selectively to Acetylated Heparan Sulfate Octasaccharides. Journal of Biological Chemistry, 2007, 282, 25182-25188.	1.6	33
259	Mutational Study of Heparan Sulfate 2-O-Sulfotransferase and Chondroitin Sulfate 2-O-Sulfotransferase. Journal of Biological Chemistry, 2007, 282, 8356-8367.	1.6	24
260	Guanidinylated Neomycin Delivers Large, Bioactive Cargo into Cells through a Heparan Sulfate-dependent Pathway. Journal of Biological Chemistry, 2007, 282, 13585-13591.	1.6	69
261	Characterization of Anti-heparan Sulfate Phage Display Antibodies AO4B08 and HS4E4. Journal of Biological Chemistry, 2007, 282, 21032-21042.	1.6	70
262	Biosynthesis of Chondroitin and Heparan Sulfate in Chinese Hamster Ovary Cells Depends on Xylosyltransferase II*. Journal of Biological Chemistry, 2007, 282, 5195-5200.	1.6	71
263	The Heparin/Heparan Sulfate Sequence That Interacts with Cyclophilin B Contains a 3-O-Sulfated N-Unsubstituted Glucosamine Residue. Journal of Biological Chemistry, 2007, 282, 24416-24429.	1.6	52
264	Defective N-sulfation of heparan sulfate proteoglycans limits PDGF-BB binding and pericyte recruitment in vascular development. Genes and Development, 2007, 21, 316-331.	2.7	157
265	The binding of human betacellulin to heparin, heparan sulfate and relatedÂpolysaccharides. Glycobiology, 2007, 17, 1094-1103.	1.3	9
266	Congenital Muscular Dystrophies Involving the O-Mannose Pathway. Current Molecular Medicine, 2007, 7, 417-425.	0.6	61
267	Expression of glomerular heparan sulphate domains in murine and human lupus nephritis. Nephrology Dialysis Transplantation, 2007, 22, 1891-1902.	0.4	31
268	Secreted NS1 of Dengue Virus Attaches to the Surface of Cells via Interactions with Heparan Sulfate and Chondroitin Sulfate E. PLoS Pathogens, 2007, 3, e183.	2.1	218
269	Removal of Heparan Sulfate from the Glomerular Basement Membrane Blocks Protein Passage. Journal of the American Society of Nephrology: JASN, 2007, 18, 3119-3127.	3.0	20
270	Diseases Associated with Carbohydrates/Glycoconjugates*. , 2007, , 339-371.		3
271	Differential expression of syndecans and glypicans in chronically inflamed synovium. Annals of the Rheumatic Diseases, 2007, 67, 592-601.	0.5	43
272	Enzymatic Synthesis of Glycosaminoglycan Heparin. Seminars in Thrombosis and Hemostasis, 2007, 33, 453-465.	1.5	44
273	Syndecan-1 deficiency aggravates anti-glomerular basement membrane nephritis. Kidney International, 2007, 72, 1204-1215.	2.6	60

#	Article	IF	Citations
274	Heparanase in glomerular diseases. Kidney International, 2007, 72, 543-548.	2.6	98
275	Genetic alteration of endothelial heparan sulfate selectively inhibits tumor angiogenesis. Journal of Cell Biology, 2007, 177, 539-549.	2.3	107
276	Conditional Kif3a ablation causes abnormal hedgehog signaling topography, growth plate dysfunction, and excessive bone and cartilage formation during mouse skeletogenesis. Development (Cambridge), 2007, 134, 2159-2169.	1.2	171
277	Gene Trap Disruption of the Mouse Heparan Sulfate 6- O -Endosulfatase Gene, Sulf2. Molecular and Cellular Biology, 2007, 27, 678-688.	1.1	82
278	Heparan sulfate proteoglycans at a glance. Journal of Cell Science, 2007, 120, 1829-1832.	1.2	97
279	The Role of EXT1 in Nonhereditary Osteochondroma: Identification of Homozygous Deletions. Journal of the National Cancer Institute, 2007, 99, 396-406.	3.0	101
280	Mosquito Heparan Sulfate and Its Potential Role in Malaria Infection and Transmission. Journal of Biological Chemistry, 2007, 282, 25376-25384.	1.6	67
281	Evolution of carbohydrate antigensâ€"microbial forces shaping host glycomes?. Glycobiology, 2007, 17, 23R-34R.	1.3	106
282	Syndecan-4 Mediates the Coinhibitory Function of DC-HIL on T Cell Activation. Journal of Immunology, 2007, 179, 5778-5784.	0.4	94
283	Liver heparan sulfate proteoglycans mediate clearance of triglyceride-rich lipoproteins independently of LDL receptor family members. Journal of Clinical Investigation, 2007, 117, 153-164.	3.9	177
284	Polycystic disease caused by deficiency in xylosyltransferase 2, an initiating enzyme of glycosaminoglycan biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9416-9421.	3.3	55
285	Cellular Adhesion Responses to the Heparin-binding (HepII) Domain of Fibronectin Require Heparan Sulfate with Specific Properties. Journal of Biological Chemistry, 2007, 282, 3221-3230.	1.6	61
286	Mice Deficient in Heparan Sulfate 6-O-Sulfotransferase-1 Exhibit Defective Heparan Sulfate Biosynthesis, Abnormal Placentation, and Late Embryonic Lethality. Journal of Biological Chemistry, 2007, 282, 15578-15588.	1.6	110
287	Contribution of EXT1, EXT2, and EXTL3 to Heparan Sulfate Chain Elongation. Journal of Biological Chemistry, 2007, 282, 32802-32810.	1.6	171
288	The major determinant of the heparin binding of glial cell-line-derived neurotrophic factor is near the N-terminus and is dispensable for receptor binding. Biochemical Journal, 2007, 404, 131-140.	1.7	29
289	Synthesis of Glycosaminoglycans and Their Oligosaccharides. , 2007, , 713-745.		2
290	Drosophila glypican Dally-like acts in FGF-receiving cells to modulate FGF signaling during tracheal morphogenesis. Developmental Biology, 2007, 312, 203-216.	0.9	50
291	Towards biosensing of arteriosclerotic nanoplaque formation using femtosecond spectroscopy. Archives of Biochemistry and Biophysics, 2007, 460, 92-99.	1.4	8

#	Article	IF	Citations
292	NDST-1 modulates BMPR and PTHrP signaling during endochondral bone formation in a gene knockout model. Bone, 2007, 40, 1462-1474.	1.4	19
293	Application of a methylation gene panel by quantitative PCR for lung cancers. Cancer Letters, 2007, 247, 56-71.	3.2	87
294	Subendothelial Heparan Sulfate Proteoglycans Become Major L-Selectin and Monocyte Chemoattractant Protein-1 Ligands upon Renal Ischemia/Reperfusion. American Journal of Pathology, 2007, 170, 1865-1878.	1.9	67
295	Towards GAG glycomics: Analysis of highly sulfated heparins by MALDI-TOF massÂspectrometry. Glycobiology, 2007, 17, 972-982.	1.3	62
296	Glycomics of Proteoglycan Biosynthesis in Murine Embryonic Stem Cell Differentiation. Journal of Proteome Research, 2007, 6, 4374-4387.	1.8	130
297	Profiling Heparinâ€“Chemokine Interactions Using Synthetic Tools. ACS Chemical Biology, 2007, 2, 735-744.	1.6	149
298	First step of the cell-penetrating peptide mechanism involves Rac1 GTPase-dependent actin-network remodelling. Biology of the Cell, 2007, 99, 223-238.	0.7	84
299	Knockout Mice and Proteoglycans. , 2007, , 159-191.		6
300	Galactosaminoglycan Function and Oligosaccharide Structure Determination. Scientific World Journal, The, 2007, 7, 233-241.	0.8	18
301	Secreted Sulfatases Sulf1 and Sulf2 Have Overlapping yet Essential Roles in Mouse Neonatal Survival. PLoS ONE, 2007, 2, e575.	1.1	114
302	The Novel CXCL12Î³ Isoform Encodes an Unstructured Cationic Domain Which Regulates Bioactivity and Interaction with Both Glycosaminoglycans and CXCR4. PLoS ONE, 2007, 2, e1110.	1.1	95
303	Biosynthesis of Glycosaminoglycans and Proteoglycans. , 2007, , 79-104.		35
304	Glycobiology of Caenorhabditis elegans. , 2007, , 81-100.		3
305	Syndecans. , 2007, , 396-402.		0
306	Ligand, modulatory, and co-receptor functions of neural glycans. Frontiers in Bioscience - Landmark, 2007, 12, 3852.	3.0	14
308	Heparan Sulfate. , 2007, , 947-959.		2
309	Heparan sulfate-protein interactions â€“ A concept for drug design?. Thrombosis and Haemostasis, 2007, 98, 109-115.	1.8	101
310	Heparan sulfate regulates the anabolic activity of MC3T3-E1 preosteoblast cells by induction of Runx2. Journal of Cellular Physiology, 2007, 210, 38-50.	2.0	60

#	Article	IF	Citations
311	Combinatorial expression patterns of heparan sulfate sulfotransferases in zebrafish: III. 2-O-sulfotransferase and C5-epimerases. Developmental Dynamics, 2007, 236, 581-586.	0.8	25
312	Cellular uptake mechanisms and potential therapeutic utility of peptidic cell delivery vectors: Progress 2001â€“2006. Medicinal Research Reviews, 2007, 27, 755-795.	5.0	69
313	Potentiation of Fibroblast Growth Factor Activity by Synthetic Heparin Oligosaccharide Glycodendrimers. Chemistry and Biology, 2007, 14, 879-887.	6.2	84
314	Using an Enzymatic Combinatorial Approach to Identify Anticoagulant Heparan Sulfate Structures. Chemistry and Biology, 2007, 14, 986-993.	6.2	98
315	Cooperativity in Glycan-Protein Interactions. Chemistry and Biology, 2007, 14, 873-874.	6.2	15
316	Combinatorial Enzymatic Synthesis of Heparan Sulfate. Chemistry and Biology, 2007, 14, 972-973.	6.2	7
317	Elastin as a biomaterial for tissue engineering. Biomaterials, 2007, 28, 4378-4398.	5.7	416
318	Heparan sulphate proteoglycans fine-tune mammalian physiology. Nature, 2007, 446, 1030-1037.	13.7	1,413
319	Entry of the bacterial pathogen Listeria monocytogenes into mammalian cells. Cellular Microbiology, 2007, 9, 1365-1375.	1.1	80
320	Role of glycosaminoglycans for binding and infection of hepatitis B virus. Cellular Microbiology, 2007, 10, 070810224957001-???.	1.1	153
321	Diversity in Fibroblast Growth Factor Receptor 1 Regulation: Learning from the Investigation of Kallmann Syndrome. Journal of Neuroendocrinology, 2008, 20, 141-163.	1.2	73
322	The extracellular matrix and blood vessel formation: not just a scaffold. Journal of Cellular and Molecular Medicine, 2007, 11, 176-205.	1.6	188
323	Mammalian heparanase: what is the message?. Journal of Cellular and Molecular Medicine, 2007, 11, 427-452.	1.6	211
324	Chondroitin/dermatan sulfate in the central nervous system. Current Opinion in Structural Biology, 2007, 17, 536-545.	2.6	259
325	Tinkering with heparan sulfate sulfation to steer development. Trends in Cell Biology, 2007, 17, 173-177.	3.6	73
326	Anticoagulant heparan sulfate: structural specificity and biosynthesis. Applied Microbiology and Biotechnology, 2007, 74, 263-272.	1.7	126
327	Regulation of pancreatic endocrine cell differentiation by sulphated proteoglycans. Diabetologia, 2007, 50, 585-595.	2.9	26
328	Chondroitin sulfate and keratan sulfate are the major glycosaminoglycans present in the adult zebrafish Danio rerio (Chordata-Cyprinidae). Glycoconjugate Journal, 2007, 24, 521-530.	1.4	25

#	Article	IF	Citations
329	Chemokines: novel targets for breast cancer metastasis. Cancer and Metastasis Reviews, 2007, 26, 401-420.	2.7	155
330	The endothelial glycocalyx: composition, functions, and visualization. Pflugers Archiv European Journal of Physiology, 2007, 454, 345-359.	1.3	1,440
331	Soluble Glycosaminoglycans Inhibit the Interaction of TATâ^'PTD with Lipid Vesicles. International Journal of Peptide Research and Therapeutics, 2008, 14, 209-214.	0.9	1
332	Serglycin and secretion in human monocytes. Glycoconjugate Journal, 2008, 25, 305-311.	1.4	14
333	Is human placenta proteoglycan remodeling involved in pre-eclampsia?. Glycoconjugate Journal, 2008, 25, 441-450.	1.4	21
334	Generation and characterization of a series of monoclonal antibodies that specifically recognize [HexA(Â±2S)-GlcNAc]n epitopes in heparan sulfate. Glycoconjugate Journal, 2008, 25, 703-712.	1.4	20
335	Serglycin â€“ Structure and biology. Cellular and Molecular Life Sciences, 2008, 65, 1073-1085.	2.4	159
336	Heparanase induces a differential loss of heparan sulphate domains in overt diabetic nephropathy. Diabetologia, 2008, 51, 372-382.	2.9	57
337	Alterations in Heparan Sulfate in the Vessel in Response to Vascular Injury in the Mouse. Journal of Cardiovascular Translational Research, 2008, 1, 236-240.	1.1	4
338	Control of Growth Factor Networks by Heparan Sulfate Proteoglycans. Annals of Biomedical Engineering, 2008, 36, 2134-2148.	1.3	70
339	Liposomes Incorporating a Plasmodium Amino Acid Sequence Target Heparan Sulfate Binding Sites in Liver. Journal of Pharmaceutical Sciences, 2008, 97, 3257-3273.	1.6	23
340	â€œClickâ€•Xylosides Initiate Glycosaminoglycan Biosynthesis in a Mammalian Cell Line. ChemBioChem, 2008, 9, 198-200.	1.3	33
341	Heparin Dependent Coiledâ€€Coil Formation. ChemBioChem, 2008, 9, 1545-1548.	1.3	10
342	Systemic inactivation of Hs6st1 in mice is associated with late postnatal mortality without major defects in organogenesis. Genesis, 2008, 46, 8-18.	0.8	31
343	Inhibition of histone acetyltransferase by glycosaminoglycans. Journal of Cellular Biochemistry, 2008, 105, 108-120.	1.2	52
344	Heparin activates Wnt signaling for neuronal morphogenesis. Journal of Cellular Physiology, 2008, 216, 805-815.	2.0	34
345	The binding of heparin to the extracellular matrix of endothelial cells upâ€regulates the synthesis of an antithrombotic heparan sulfate proteoglycan. Journal of Cellular Physiology, 2008, 217, 328-337.	2.0	25
346	New electrophoretic and chromatographic techniques for analysis of heparin and heparan sulfate. Electrophoresis, 2008, 29, 3168-3174.	1.3	15

#	Article	IF	Citations
347	Glycosylation analysis of glycoproteins and proteoglycans using capillary electrophoresisâ€mass spectrometry strategies. Electrophoresis, 2008, 29, 2485-2507.	1.3	87
348	Improved workup for glycosaminoglycan disaccharide analysis using CE with LIF detection. Electrophoresis, 2008, 29, 4538-4548.	1.3	35
349	Hypothesis: arterial glycocalyx dysfunction is the first step in the atherothrombotic process. QJM - Monthly Journal of the Association of Physicians, 2008, 101, 513-518.	0.2	99
350	Expression of Multiple Chondroitin/Dermatan Sulfotransferases in the Neurogenic Regions of the Embryonic and Adult Central Nervous System Implies That Complex Chondroitin Sulfates Have a Role in Neural Stem Cell Maintenance. Stem Cells, 2008, 26, 798-809.	1.4	100
351	Hydrogen peroxide as a potential mediator of the transcriptional regulation of heparan sulphate biosynthesis in keratinocytes. Cellular and Molecular Biology Letters, 2008, 13, 475-92.	2.7	9
352	Brain heparanase expression is upâ€regulated during postnatal development and hypoxiaâ€induced neovascularization in adult rats. Journal of Neurochemistry, 2008, 105, 34-45.	2.1	26
353	Heparan sulphate proteoglycans in glia and in the normal and injured CNS: expression of sulphotransferases and changes in sulphation. European Journal of Neuroscience, 2008, 27, 593-604.	1.2	67
354	Requirement of the conserved, hydrophobic C-terminus region for the activation of heparanase. Experimental Cell Research, 2008, 314, 2834-2845.	1.2	13
355	Extracellular Sugar Modifications Provide Instructive and Cell-Specific Information for Axon-Guidance Choices. Current Biology, 2008, 18, 1978-1985.	1.8	64
356	Chitinase 3-Like-1 (CHI3L1): A Putative Disease Marker at the Interface of Proteomics and Glycomics. Critical Reviews in Clinical Laboratory Sciences, 2008, 45, 531-562.	2.7	107
357	Angiogenesis and Vascular Remodeling in Inflammation and Cancer: Biology and Architecture of the Vasculature. , 2008, , 17-33.		16
358	Solution Structures of Chemoenzymatically Synthesized Heparin and Its Precursors. Journal of the American Chemical Society, 2008, 130, 12998-13007.	6.6	149
359	Extracellular Superoxide Dismutase in Pulmonary Fibrosis. Antioxidants and Redox Signaling, 2008, 10, 343-354.	2.5	104
360	Expression of novel extracellular sulfatases Sulf-1 and Sulf-2 in normal and osteoarthritic articular cartilage. Arthritis Research and Therapy, 2008, 10, R61.	1.6	59
361	Polysaccharides and Proteoglycans in Calcium Carbonate-based Biomineralization. Chemical Reviews, 2008, 108, 4475-4482.	23.0	247
362	Loss of heparan sulfate glycosaminoglycan assembly in podocytes does not lead to proteinuria. Kidney International, 2008, 74, 289-299.	2.6	83
363	Properdin: New roles in pattern recognition and target clearance. Molecular Immunology, 2008, 45, 4048-4056.	1.0	86
364	Heparan sulfate proteoglycans and their binding proteins in embryo implantation and placentation. Seminars in Cell and Developmental Biology, 2008, 19, 187-193.	2.3	31

#	Article	IF	Citations
365	Heparanase expression and activity influences chondrogenic and osteogenic processes during endochondral bone formation. Bone, 2008, 43, 689-699.	1.4	36
366	Glycanogenomics: A qPCR-approach to investigate biological glycan function. Biochemical and Biophysical Research Communications, 2008, 375, 297-302.	1.0	23
367	Solid-Phase Synthesis of Î±-Glucosamine Sulfoforms with Fragmentation Analysis by Tandem Mass Spectrometry. Journal of Organic Chemistry, 2008, 73, 6059-6072.	1.7	8
368	Characterization of Heparin Oligosaccharides Binding Specifically to Antithrombin III Using Mass Spectrometry. Biochemistry, 2008, 47, 3155-3161.	1.2	50
369	Minimum FGF2 Binding Structural Requirements of Heparin and Heparan Sulfate Oligosaccharides As Determined by NMR Spectroscopy. Biochemistry, 2008, 47, 13862-13869.	1.2	57
370	Danaparoid sodium attenuates the increase in inflammatory cytokines and preserves organ function in endotoxemic rats. Critical Care, 2008, 12, R86.	2.5	21
371	Using a 3-O-Sulfated Heparin Octasaccharide To Inhibit the Entry of Herpes Simplex Virus Type 1. Biochemistry, 2008, 47, 5774-5783.	1.2	117
372	The complement protein properdin binds apoptotic T cells and promotes complement activation and phagocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9023-9028.	3.3	135
373	6-O-Sulfation of Heparan Sulfate Differentially Regulates Various Fibroblast Growth Factor-dependent Signalings in Culture. Journal of Biological Chemistry, 2008, 283, 10366-10376.	1.6	96
375	Regulation of proBACE1 by Glycosaminoglycans. Neurodegenerative Diseases, 2008, 5, 206-208.	0.8	5
376	Identification of Chondroitin Sulfate Glucuronyltransferase as Chondroitin Synthase-3 Involved in Chondroitin Polymerization. Journal of Biological Chemistry, 2008, 283, 11396-11406.	1.6	129
377	Proteoglycan desulfation determines the efficiency of chondrocyte autophagy and the extent of FGF signaling during endochondral ossification. Genes and Development, 2008, 22, 2645-2650.	2.7	86
378	Inhibition of Heparan Sulfate and Chondroitin Sulfate Proteoglycan Biosynthesis. Journal of Biological Chemistry, 2008, 283, 28881-28887.	1.6	44
379	The Diversity of O-Linked Glycans Expressed during Drosophila melanogaster Development Reflects Stage- and Tissue-specific Requirements for Cell Signaling. Journal of Biological Chemistry, 2008, 283, 30385-30400.	1.6	128
380	Altered Heparan Sulfate Structure in Mice with Deleted NDST3 Gene Function. Journal of Biological Chemistry, 2008, 283, 16885-16894.	1.6	63
381	Heparan Sulfate Regulates Self-renewal and Pluripotency of Embryonic Stem Cells. Journal of Biological Chemistry, 2008, 283, 3594-3606.	1.6	99
382	Tetrasulfated Disaccharide Unit in Heparan Sulfate. Journal of Biological Chemistry, 2008, 283, 31237-31245.	1.6	42
383	Evolutionary Differences in Glycosaminoglycan Fine Structure Detected by Quantitative Glycan Reductive Isotope Labeling. Journal of Biological Chemistry, 2008, 283, 33674-33684.	1.6	170

#	Article	IF	Citations
384	Vascular Endothelial Growth Factor (VEGF)-A165b Is a Weak In vitro Agonist for VEGF Receptor-2 Due to Lack of Coreceptor Binding and Deficient Regulation of Kinase Activity. Cancer Research, 2008, 68, 4683-4692.	0.4	147
385	Heparan sulfate biosynthesis enzymes EXT1 and EXT2 affect NDST1 expression and heparan sulfate sulfation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4751-4756.	3.3	151
386	Tubulointerstitial heparan sulfate proteoglycan changes in human renal diseases correlate with leukocyte influx and proteinuria. American Journal of Physiology - Renal Physiology, 2008, 294, F253-F263.	1.3	39
387	Application of drug discovery software to the identification of heparin-binding sites on protein surfaces: a computational survey of the 4-helix cytokines. Molecular Simulation, 2008, 34, 481-489.	0.9	24
388	Bud specific N-sulfation of heparan sulfate regulatesShp2-dependent FGF signaling during lacrimal gland induction. Development (Cambridge), 2008, 135, 301-310.	1.2	91
389	Sulf Loss Influences N-, 2-O-, and 6-O-Sulfation of Multiple Heparan Sulfate Proteoglycans and Modulates Fibroblast Growth Factor Signaling. Journal of Biological Chemistry, 2008, 283, 27724-27735.	1.6	129
390	Heparin/Heparan Sulfate Biosynthesis. Journal of Biological Chemistry, 2008, 283, 20008-20014.	1.6	112
391	A role for a lithium-inhibited Golgi nucleotidase in skeletal development and sulfation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11605-11612.	3.3	61
392	Reduction of anionic sites in the glomerular basement membrane by heparanase does not lead to proteinuria. Kidney International, 2008, 73, 278-287.	2.6	65
393	Heparin as an anticancer therapeutic. Expert Opinion on Investigational Drugs, 2008, 17, 1029-1037.	1.9	33
394	Heparan sulfate domains on cultured activated glomerular endothelial cells mediate leukocyte trafficking. Kidney International, 2008, 73, 52-62.	2.6	60
395	Redirecting the substrate specificity of heparan sulfate 2- O -sulfotransferase by structurally guided mutagenesis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18724-18729.	3.3	50
396	A translational block to HSPG synthesis permits BMP signaling in the earlyDrosophilaembryo. Development (Cambridge), 2008, 135, 1039-1047.	1.2	44
397	Transforming Growth Factor-Î²1 Induces Heparan Sulfate 6-O-Endosulfatase 1 Expression in Vitro and in Vivo. Journal of Biological Chemistry, 2008, 283, 20397-20407.	1.6	58
398	Neuropilin-1 in regulation of VEGF-induced activation of p38MAPK and endothelial cell organization. Blood, 2008, 112, 3638-3649.	0.6	143
399	Analysis of Glycosaminoglycans by Electrophoretic Approach. Current Pharmaceutical Analysis, 2008, 4, 78-89.	0.3	9
400	Potential Therapeutic Application of Chondroitin Sulfate/Dermatan Sulfate. Current Drug Discovery Technologies, 2008, 5, 289-301.	0.6	214
401	Heparan sulfate proteoglycans and triglyceride-rich lipoprotein metabolism. Current Opinion in Lipidology, 2008, 19, 307-313.	1.2	47

#	Article	IF	Citations
402	Carbohydrate Arrays for Basic Science and as Diagnostic Tools. , 2008, , 387-403.		0
403	The CXCL12Î³ Chemokine Displays Unprecedented Structural and Functional Properties that Make It a Paradigm of Chemoattractant Proteins. PLoS ONE, 2008, 3, e2543.	1.1	72
404	Cell Surface Sialylation and Fucosylation Are Regulated by L1 via Phospholipase CÎ³ and Cooperate to Modulate Neurite Outgrowth, Cell Survival and Migration. PLoS ONE, 2008, 3, e3841.	1.1	21
405	Glypican-1 modulates the angiogenic and metastatic potential of human and mouse cancer cells. Journal of Clinical Investigation, 2008, 118, 89-99.	3.9	149
408	Heparanase and its related molecules in odontogenic tumors. Oral Medicine & Pathology, 2009, 13, 81-89.	0.3	3
409	Heparan sulfate proteoglycans in extravasation: assisting leukocyte guidance. Frontiers in Bioscience - Landmark, 2009, 14, 4932.	3.0	52
410	Of brain and bone: The unusual case of Dr. A. Neurocase, 2009, 15, 190-205.	0.2	22
411	Two Dermatan Sulfate Epimerases Form Iduronic Acid Domains in Dermatan Sulfate. Journal of Biological Chemistry, 2009, 284, 9788-9795.	1.6	74
412	Heparin/Heparan Sulfate 6-O-Sulfatase from Flavobacterium heparinum. Journal of Biological Chemistry, 2009, 284, 35177-35188.	1.6	29
413	Investigating the Elusive Mechanism of Glycosaminoglycan Biosynthesis. Journal of Biological Chemistry, 2009, 284, 25842-25853.	1.6	80
414	Heparan Sulfate-modulated, Metalloprotease-mediated Sonic Hedgehog Release from Producing Cells. Journal of Biological Chemistry, 2009, 284, 8013-8022.	1.6	90
415	Heparin/Heparan Sulfate N-Sulfamidase from Flavobacterium heparinum. Journal of Biological Chemistry, 2009, 284, 35189-35200.	1.6	27
416	Mutation in the Heparan Sulfate Biosynthesis Enzyme EXT1 Influences Growth Factor Signaling and Fibroblast Interactions with the Extracellular Matrix. Journal of Biological Chemistry, 2009, 284, 34935-34943.	1.6	34
417	A Turn-like Structure â€œKKPEâ€•Segment Mediates the Specific Binding of Viral Protein A27 to Heparin and Heparan Sulfate on Cell Surfaces. Journal of Biological Chemistry, 2009, 284, 36535-36546.	1.6	23
418	High Affinity Glycosaminoglycan and Autoantigen Interaction Explains Joint Specificity in a Mouse Model of Rheumatoid Arthritis. Journal of Biological Chemistry, 2009, 284, 2354-2362.	1.6	18
419	Lack ofl-Iduronic Acid in Heparan Sulfate Affects Interaction with Growth Factors and Cell Signaling. Journal of Biological Chemistry, 2009, 284, 15942-15950.	1.6	57
420	PDGF-A interactions with fibronectin reveal a critical role for heparan sulfate in directed cell migration during Xenopus gastrulation. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21683-21688.	3.3	58
421	Heparan Sulfate and Transglutaminase Activity Are Required for the Formation of Covalently Cross-linked Hedgehog Oligomers. Journal of Biological Chemistry, 2009, 284, 32562-32571.	1.6	37

#	Article	IF	Citations
422	The extracellular regulation of bone morphogenetic protein signaling. Development (Cambridge), 2009, 136, 3715-3728.	1.2	181
423	Reduced production of sulfated glycosaminoglycans occurs in Zambian children with kwashiorkor but not marasmus. American Journal of Clinical Nutrition, 2009, 89, 592-600.	2.2	52
424	Heparan sulfate promotes the aggregation of HDLâ€associated serum amyloid A: evidence for a proamyloidogenic histidine molecular switch. FASEB Journal, 2009, 23, 3436-3448.	0.2	50
425	Chondroitin 4-O-sulfotransferase-1 is required for somitic muscle development and motor axon guidance in zebrafish. Biochemical Journal, 2009, 419, 387-399.	1.7	25
426	Treating Age-Related Macular Degeneration â€“ Interaction of VEGF-Antagonists with their Target. Mini-Reviews in Medicinal Chemistry, 2009, 9, 1127-1135.	1.1	25
427	Dermatan 4-O-sulfotransferase 1 is pivotal in the formation of iduronic acid blocks in dermatan sulfate. Glycobiology, 2009, 19, 1197-1203.	1.3	46
428	Involvement of chondroitin sulfate E in the liver tumor focal formation of murine osteosarcoma cells. Glycobiology, 2009, 19, 735-742.	1.3	66
429	Glycome and Transcriptome Regulation of Vasculogenesis. Circulation, 2009, 120, 1883-1892.	1.6	24
430	Glycoproteins and Proteoglycans. , 2009, , 369-412.		4
431	Reception of Slit requires only the chondroitinâ€“sulphate-modified extracellular domain of Syndecan at the target cell surface. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11984-11988.	3.3	41
432	NDST1-dependent heparan sulfate regulates BMP signaling and internalization in lung development. Journal of Cell Science, 2009, 122, 1145-1154.	1.2	38
433	Shaping Morphogen Gradients by Proteoglycans. Cold Spring Harbor Perspectives in Biology, 2009, 1, a002493-a002493.	2.3	299
434	Specific inhibition of FGF-2 signaling with 2-O-sulfated octasaccharides of heparan sulfate. Glycobiology, 2009, 19, 644-654.	1.3	30
436	Multiple osteochondromas: mutation update and description of the multiple osteochondromas mutation database (MOdb). Human Mutation, 2009, 30, 1620-1627.	1.1	176
437	Chondroitin sulfate expression is required for cardiac atrioventricular canal formation. Developmental Dynamics, 2009, 238, 3103-3110.	0.8	51
438	The DCâ€HIL/syndecanâ€4 pathway inhibits human allogeneic Tâ€cell responses. European Journal of Immunology, 2009, 39, 965-974.	1.6	63
439	Cell surface heparan sulfate released by heparanase promotes melanoma cell migration and angiogenesis. Journal of Cellular Biochemistry, 2009, 106, 200-209.	1.2	62
440	Purification and characterization of heparan sulfate from human primary osteoblasts. Journal of Cellular Biochemistry, 2009, 108, 1132-1142.	1.2	10

#	Article	IF	Citations
441	Deâ€sulfation of MGâ€63 cell glycosaminoglycans delays in vitro osteogenesis, upâ€regulates cholesterol synthesis and disrupts cell cycle and the actin cytoskeleton. Journal of Cellular Physiology, 2009, 219, 572-583.	2.0	17
442	Onâ€line separations combined with MS for analysis of glycosaminoglycans. Mass Spectrometry Reviews, 2009, 28, 254-272.	2.8	112
443	Preparation of aldehydeâ€, aminoâ€, and hydrazideâ€functionalized polymer particles for direct immobilization of the sugars. Journal of Applied Polymer Science, 2009, 114, 2937-2945.	1.3	4
444	Matrix-assisted laser desorption/ionization mass spectrometric analysis of polysulfated-derived oligosaccharides using pyrenemethylguanidine. Journal of the American Society for Mass Spectrometry, 2009, 20, 131-137.	1.2	19
445	Differentiation of 3-O-sulfated heparin disaccharide isomers: Identification of structural aspects of the heparin CCL2 binding motif. Journal of the American Society for Mass Spectrometry, 2009, 20, 652-657.	1.2	24
446	Glycosaminoglycan secretion in xyloside treated polarized human colon carcinoma Caco-2 cells. Glycoconjugate Journal, 2009, 26, 1117-1124.	1.4	8
447	Glycosyltransferase and sulfotransferase gene expression profiles in human monocytes, dendritic cells and macrophages. Glycoconjugate Journal, 2009, 26, 1259-1274.	1.4	38
448	Advances in the separation, sensitive detection, and characterization of heparin and heparan sulfate. Analytical and Bioanalytical Chemistry, 2009, 393, 155-169.	1.9	75
449	Multifunctionality of extracellular and cell surface heparan sulfate proteoglycans. Cellular and Molecular Life Sciences, 2009, 66, 3421-3434.	2.4	92
450	A chipâ€based amideâ€HILIC LC/MS platform for glycosaminoglycan glycomics profiling. Proteomics, 2009, 9, 686-695.	1.3	92
451	Analysis and validation of carbohydrate three-dimensional structures. Acta Crystallographica Section D: Biological Crystallography, 2009, 65, 156-168.	2.5	64
452	Characterization of IRX10 and IRX10â€like reveals an essential role in glucuronoxylan biosynthesis in Arabidopsis. Plant Journal, 2009, 57, 732-746.	2.8	279
453	Expression of genes encoding for proteins involved in heparan sulphate and chondroitin sulphate chain synthesis and modification in normal and malignant plasma cells. British Journal of Haematology, 2009, 145, 350-368.	1.2	63
454	Gem-diamine 1-N-iminosugars as versatile glycomimetics: synthesis, biological activity and therapeutic potential. Journal of Antibiotics, 2009, 62, 407-423.	1.0	28
455	Opportunities and challenges in synthetic oligosaccharide and glycoconjugate research. Nature Chemistry, 2009, 1, 611-622.	6.6	585
456	A Golgi-on-a-chip for glycan synthesis. Nature Chemical Biology, 2009, 5, 612-613.	3.9	14
457	From carbohydrate leads to glycomimetic drugs. Nature Reviews Drug Discovery, 2009, 8, 661-677.	21.5	665
458	Functional analysis of chick heparan sulfate 6â€Oâ€sulfotransferases in limb bud development. Development Growth and Differentiation, 2010, 52, 146-156.	0.6	13

#	Article	IF	Citations
459	Spatially and temporally regulated expression of specific heparan sulfate epitopes in the developing mouse olfactory system. Development Growth and Differentiation, 2010, 52, 169-180.	0.6	1
460	Therapeutically targeting proteinâ€“glycan interactions. British Journal of Pharmacology, 2009, 157, 686-694.	2.7	49
461	Isolation and characterization of a novel chondroitin sulfate from squid liver integument rich in N-acetylgalactosamine(4,6-disulfate) and glucuronate(3-sulfate) residues. Carbohydrate Research, 2009, 344, 1526-1532.	1.1	23
462	Effective reversed-phase ion pair high-performance liquid chromatography method for the separation and characterization of intact low-molecular-weight heparins. Analytical Biochemistry, 2009, 387, 113-121.	1.1	40
463	Specific interactions between human fibroblasts and particular chondroitin sulfate molecules for wound healing. Acta Biomaterialia, 2009, 5, 1588-1595.	4.1	60
464	Molecular Control of Lymphatic Metastasis in Lung Cancer. , 2009, , 173-191.		0
465	Heparan Sulfate Separation, Sequencing, and Isomeric Differentiation: Ion Mobility Spectrometry Reveals Specific Iduronic and Glucuronic Acid-Containing Hexasaccharides. Analytical Chemistry, 2009, 81, 10179-10185.	3.2	48
466	Toward an Artificial Golgi: Redesigning the Biological Activities of Heparan Sulfate on a Digital Microfluidic Chip. Journal of the American Chemical Society, 2009, 131, 11041-11048.	6.6	65
467	Increased serum xylosyltransferase activity in patients with liver fibrosis. Clinica Chimica Acta, 2009, 409, 123-126.	0.5	17
468	Golgi linked protein glycosylation and associated diseases. Seminars in Cell and Developmental Biology, 2009, 20, 762-769.	2.3	62
469	Syndecan-1 regulates BMP signaling and dorso-ventral patterning of the ectoderm during early Xenopus development. Developmental Biology, 2009, 329, 338-349.	0.9	31
470	SDN-1/syndecan regulates growth factor signaling in distal tip cell migrations in C. elegans. Developmental Biology, 2009, 334, 235-242.	0.9	26
471	Modular Synthesis of Heparan Sulfate Oligosaccharides for Structureâ^'Activity Relationship Studies. Journal of the American Chemical Society, 2009, 131, 17394-17405.	6.6	246
472	Chapter 3 Interactions Between Heparan Sulfate and Proteinsâ€"Design and Functional Implications. International Review of Cell and Molecular Biology, 2009, 276, 105-159.	1.6	242
473	Acyltransferases for secreted signalling proteins (Review). Molecular Membrane Biology, 2009, 26, 104-113.	2.0	41
474	Lessons learned from the contamination of heparin. Natural Product Reports, 2009, 26, 313.	5.2	345
475	Aberrant Heparan Sulfate Proteoglycan Localization, Despite Normal Exostosin, in Central Chondrosarcoma. American Journal of Pathology, 2009, 174, 979-988.	1.9	42
476	Temporary fatigue and altered extracellular matrix in skeletal muscle during progression of heart failure in rats. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 297, R26-R33.	0.9	11

#	Article	IF	Citations
477	Molecular analysis of heparan sulfate biosynthetic enzyme machinery and characterization of heparan sulfate structure in Nematostella vectensis. Biochemical Journal, 2009, 419, 585-593.	1.7	19
478	Syndecan-1 shedding facilitates the resolution of neutrophilic inflammation by removing sequestered CXC chemokines. Blood, 2009, 114, 3033-3043.	0.6	142
479	Informatics Concepts to Decode Structure-Function Relationships of Glycosaminoglycans. , 0, , 269-294.		0
480	Recent insights into factors affecting remnant lipoprotein uptake. Current Opinion in Lipidology, 2010, 21, 218-228.	1.2	75
481	Structure, Biosynthesis, and Function of Glycosaminoglycans. , 2010, , 407-427.		5
482	Targeting EXT1 reveals a crucial role for heparan sulfate in the growth of multiple myeloma. Blood, 2010, 115, 601-604.	0.6	50
483	Biosynthesis of heparan sulfate in EXT1-deficient cells. Biochemical Journal, 2010, 428, 463-471.	1.7	39
484	Complement factor H and age-related macular degeneration: the role of glycosaminoglycan recognition in disease pathology. Biochemical Society Transactions, 2010, 38, 1342-1348.	1.6	83
485	Sulfatase activities towards the regulation of cell metabolism and signaling in mammals. Cellular and Molecular Life Sciences, 2010, 67, 769-780.	2.4	30
486	Syndecans as receptors and organizers of the extracellular matrix. Cell and Tissue Research, 2010, 339, 31-46.	1.5	240
487	The developmental roles of the extracellular matrix: beyond structure to regulation. Cell and Tissue Research, 2010, 339, 93-110.	1.5	144
488	Establishment of heparan sulphate deficient primary endothelial cells from EXT-1flox/flox mouse lungs and sprouting aortas. In Vitro Cellular and Developmental Biology - Animal, 2010, 46, 577-584.	0.7	4
489	Heparin sulphate d-glucosaminyl 3-O-sulfotransferase 3B1 plays a role in HBV replication. Virology, 2010, 406, 280-285.	1.1	18
490	A 4-deoxy analogue of N-acetyl-d-glucosamine inhibits heparan sulphate expression and growth factor binding in vitro. Experimental Cell Research, 2010, 316, 2504-2512.	1.2	20
491	Glucosamineâ€6â€sulfamate Analogues of Heparan Sulfate as Inhibitors of Endosulfatases. ChemBioChem, 2010, 11, 2393-2397.	1.3	15
492	Heparan Sulfates in the Lung: Structure, Diversity, and Role in Pulmonary Emphysema. Anatomical Record, 2010, 293, 955-967.	0.8	27
493	Proteoglycans: Key Regulators of Pulmonary Inflammation and the Innate Immune Response to Lung Infection. Anatomical Record, 2010, 293, 968-981.	0.8	99
494	Role of proteoglycans and glycosaminoglycans in the pathogenesis of Alzheimer's disease and related disorders: Amyloidogenesis and therapeutic strategiesâ€"A review. Journal of Neuroscience Research, 2010, 88, 2303-2315.	1.3	102

#	Article	IF	Citations
495	Fluorescent-tagged heparan sulfate precursor oligosaccharides to probe the enzymatic action of heparitinase I. Analytical Biochemistry, 2010, 396, 124-132.	1.1	10
496	Characterization of human fibroblast-derived extracellular matrix components for human pluripotent stem cell propagation. Acta Biomaterialia, 2010, 6, 4622-4633.	4.1	41
497	Structureâ€"function analysis of VEGF receptor activation and the role of coreceptors in angiogenic signaling. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 567-580.	1.1	128
498	Interstitial fluid: the overlooked component of the tumor microenvironment?. Fibrogenesis and Tissue Repair, 2010, 3, 12.	3.4	96
499	Arabidopsis â€" a powerful model system for plant cell wall research. Plant Journal, 2010, 61, 1107-1121.	2.8	184
500	VEGF receptor 2/-3 heterodimers detected in situ by proximity ligation on angiogenic sprouts. EMBO Journal, 2010, 29, 1377-1388.	3.5	149
501	High-performance liquid chromatography-mass spectrometry for mapping and sequencing glycosaminoglycan-derived oligosaccharides. Nature Protocols, 2010, 5, 993-1004.	5.5	53
502	Chemical Tumor Biology of Heparan Sulfate Proteoglycans. Current Chemical Biology, 2010, 4, 20-31.	0.2	3
503	Glycotranscriptomics. , 2010, , 95-135.		3
504	Vascular Endothelial Growth Factors and Receptors. , 2010, , 1927-1937.		2
505	Genome-Wide Association Study Identifies GPC5 as a Novel Genetic Locus Protective against Sudden Cardiac Arrest. PLoS ONE, 2010, 5, e9879.	1.1	54
506	Loss of the Heparan Sulfate Sulfotransferase, Ndst1, in Mammary Epithelial Cells Selectively Blocks Lobuloalveolar Development in Mice. PLoS ONE, 2010, 5, e10691.	1.1	36
507	Sulfated, low-molecular-weight lignins are potent inhibitors of plasmin, in addition to thrombin and factor Xa: Novel opportunity for controlling complex pathologies. Thrombosis and Haemostasis, 2010, 103, 507-515.	1.8	30
508	Artificial Organelles: Digital Microfluidic Platform for Proteoglycan and Glycoprotein Biosynthesis. Scientific World Journal, The, 2010, 10, 997-1000.	0.8	0
509	Early identification of risk factors for sudden cardiac death. Nature Reviews Cardiology, 2010, 7, 318-326.	6.1	81
510	Chondroitin Sulfate Synthase-2/Chondroitin Polymerizing Factor Has Two Variants with Distinct Function*. Journal of Biological Chemistry, 2010, 285, 34155-34167.	1.6	20
511	Heparan Sulfate Acts as a Bone Morphogenetic Protein Coreceptor by Facilitating Ligand-induced Receptor Hetero-oligomerization. Molecular Biology of the Cell, 2010, 21, 4028-4041.	0.9	96
512	Glucuronyltransferase Activity of KfiC from Escherichia coli Strain K5 Requires Association of KfiA. Journal of Biological Chemistry, 2010, 285, 1597-1606.	1.6	32

#	Article	IF	Citations
513	Heparan Sulfate 2-O-Sulfotransferase Is Required for Triglyceride-rich Lipoprotein Clearance*. Journal of Biological Chemistry, 2010, 285, 286-294.	1.6	76
514	The Heparan Sulfate Motif (GlcNS6S-IdoA2S)3, Common in Heparin, Has a Strict Topography and Is Involved in Cell Behavior and Disease. Journal of Biological Chemistry, 2010, 285, 41143-41151.	1.6	53
515	Biology of KAL1 and Its Orthologs: Implications for X-Linked Kallmann Syndrome and the Search for Novel Candidate Genes. Frontiers of Hormone Research, 2010, 39, 62-77.	1.0	6
516	Kinetics of Chemokineâ€“Glycosaminoglycan Interactions Control Neutrophil Migration into the Airspaces of the Lungs. Journal of Immunology, 2010, 184, 2677-2685.	0.4	92
517	Proteoglycomics: Recent Progress and Future Challenges. OMICS A Journal of Integrative Biology, 2010, 14, 389-399.	1.0	83
518	Sulfotransferase Ndst1 is Needed for Mandibular and TMJ Development. Journal of Dental Research, 2010, 89, 1111-1116.	2.5	32
519	WSS25 Inhibits Growth of Xenografted Hepatocellular Cancer Cells in Nude Mice by Disrupting Angiogenesis via Blocking Bone Morphogenetic Protein (BMP)/Smad/Id1 Signaling. Journal of Biological Chemistry, 2010, 285, 32638-32646.	1.6	48
520	WSS45, a sulfated Î±-D-glucan, strongly interferes with Dengue 2 virus infection in vitro. Acta Pharmacologica Sinica, 2010, 31, 585-592.	2.8	32
521	Heparan Sulfate Is Required for Embryonic Stem Cells to Exit from Self-renewal. Journal of Biological Chemistry, 2010, 285, 5907-5916.	1.6	89
522	Catalytic Mechanism of Heparinase II Investigated by Site-directed Mutagenesis and the Crystal Structure with Its Substrate. Journal of Biological Chemistry, 2010, 285, 20051-20061.	1.6	39
523	Impaired Binding of the Age-related Macular Degeneration-associated Complement Factor H 402H Allotype to Bruch's Membrane in Human Retina. Journal of Biological Chemistry, 2010, 285, 30192-30202.	1.6	159
524	Synthesis of Heparan Sulfate with Cyclophilin B-binding Properties Is Determined by Cell Type-specific Expression of Sulfotransferases. Journal of Biological Chemistry, 2010, 285, 1701-1715.	1.6	19
525	Extended N-Sulfated Domains Reside at the Nonreducing End of Heparan Sulfate Chains. Journal of Biological Chemistry, 2010, 285, 18336-18343.	1.6	48
526	Chemoenzymatic Design of Heparan Sulfate Oligosaccharides*. Journal of Biological Chemistry, 2010, 285, 34240-34249.	1.6	138
527	Target selection of heparan sulfate hexuronic acid 2-O-sulfotransferase. Glycobiology, 2010, 20, 1274-1282.	1.3	18
528	Identification of human hyaluronidase-4 as a novel chondroitin sulfate hydrolase that preferentially cleaves the galactosaminidic linkage in the trisulfated tetrasaccharide sequence. Glycobiology, 2010, 20, 300-309.	1.3	91
529	Carbohydrate Recognition and Signaling. , 2010, , 85-91.		2
530	Introduction to Human Glycosylation Disorders. , 2010, , 431-464.		1

#	Article	IF	Citations
531	Direct detection of HSulf-1 and HSulf-2 activities on extracellular heparan sulfate and their inhibition by PI-88. Glycobiology, 2010, 20, 175-186.	1.3	84
532	Chemical Tumor Biology of Heparan Sulfate Proteoglycans. Current Chemical Biology, 2010, 4, 20-31.	0.2	69
533	The Glycomics of Glycan Glucuronylation in Drosophila melanogaster. Methods in Enzymology, 2010, 480, 297-321.	0.4	36
534	Mice Deficient in Heparan Sulfate N-Deacetylase/N-Sulfotransferase 1. Progress in Molecular Biology and Translational Science, 2010, 93, 35-58.	0.9	34
535	Mice Deficient in Heparan Sulfate 6-O-Sulfotransferase-1. Progress in Molecular Biology and Translational Science, 2010, 93, 79-111.	0.9	24
536	The Synthesis of 1,2-cis-Amino Containing Oligosaccharides Toward Biological Investigation. Methods in Enzymology, 2010, 478, 413-435.	0.4	7
537	Endothelial Heparan Sulfate in Angiogenesis. Progress in Molecular Biology and Translational Science, 2010, 93, 179-212.	0.9	70
538	Improved Hydrophilic Interaction Chromatography LC/MS of Heparinoids Using a Chip with Postcolumn Makeup Flow. Analytical Chemistry, 2010, 82, 516-522.	3.2	55
539	Structural and mechanistic classification of uronic acid-containing polysaccharide lyases. Glycobiology, 2010, 20, 1547-1573.	1.3	207
540	Screening for Anticoagulant Heparan Sulfate Octasaccharides and Fine Structure Characterization Using Tandem Mass Spectrometry. Biochemistry, 2010, 49, 3743-3752.	1.2	15
541	Properdin: Emerging Roles of a Pattern-Recognition Molecule. Annual Review of Immunology, 2010, 28, 131-155.	9.5	197
542	Transmembrane Signaling Proteoglycans. Annual Review of Cell and Developmental Biology, 2010, 26, 89-114.	4.0	342
543	Proteolytic cleavage of the rat heparan sulfate 6-O-endosulfatase SulfFP2 by furin-type proprotein convertases. Biochemical and Biophysical Research Communications, 2010, 391, 107-112.	1.0	10
544	Specific sides to multifaceted glycosaminoglycans are observed in embryonic development. Seminars in Cell and Developmental Biology, 2010, 21, 631-637.	2.3	15
545	Heparan sulfate Ndst1 regulates vascular smooth muscle cell proliferation, vessel size and vascular remodeling. Journal of Molecular and Cellular Cardiology, 2010, 49, 287-293.	0.9	22
546	The metabolism of triglyceride-rich lipoproteins revisited: New players, new insight. Atherosclerosis, 2010, 211, 1-8.	0.4	149
547	Compartmentalization from the outside: the extracellular matrix and functional microdomains in the brain. Trends in Neurosciences, 2010, 33, 503-512.	4.2	191
548	Chondroitin Sulfate and Abnormal Contact System in Rheumatoid Arthritis. Progress in Molecular Biology and Translational Science, 2010, 93, 423-442.	0.9	17

#	Article	IF	Citations
549	Sustainable Biotechnology. , 2010, , .		9
550	Cell-Extracellular Matrix Interactions in Cancer. , 2010, , .		22
551	Mass Spectrometry and Glycomics. OMICS A Journal of Integrative Biology, 2010, 14, 401-418.	1.0	208
552	Glycosaminoglycan (GAG) Biosynthesis and GAG-Binding Proteins. Progress in Molecular Biology and Translational Science, 2010, 93, 1-17.	0.9	138
553	Enzymatic Synthesis of Heparin. , 2010, , 259-277.		2
554	Differential Scanning Fluorimetry Measurement of Protein Stability Changes upon Binding to Glycosaminoglycans: A Screening Test for Binding Specificity. Analytical Chemistry, 2010, 82, 3796-3802.	3.2	53
555	Synthesis and evaluation of xylopyranoside derivatives as â€œdecoy acceptorsâ€•of human Î²-1,4-galactosyltransferase 7. Molecular BioSystems, 2011, 7, 1312.	2.9	12
556	Characterization of Annexin A1 Glycan Binding Reveals Binding to Highly Sulfated Glycans with Preference for Highly Sulfated Heparan Sulfate and Heparin. Biochemistry, 2011, 50, 2650-2659.	1.2	23
557	Extracellular matrix and cell signalling: the dynamic cooperation of integrin, proteoglycan and growth factor receptor. Journal of Endocrinology, 2011, 209, 139-151.	1.2	985
558	Heparan Sulfate Proteoglycans. Cold Spring Harbor Perspectives in Biology, 2011, 3, a004952-a004952.	2.3	1,147
559	Differential inhibition of dengue virus infection in mammalian and mosquito cells by iota-carrageenan. Journal of General Virology, 2011, 92, 1332-1342.	1.3	63
560	The proteoglycan bikunin has a defined sequence. Nature Chemical Biology, 2011, 7, 827-833.	3.9	176
561	Evolution of glycosaminoglycans. Communicative and Integrative Biology, 2011, 4, 150-158.	0.6	179
562	Targeting the Wnt Pathway in Cancer. , 2011, , .		9
563	The Dynamic Glycome Microenvironment and Stem Cell Differentiation into Vasculature. Stem Cells and Development, 2011, 20, 749-758.	1.1	9
565	Mucopolysaccharidosis Type I, Unique Structure of Accumulated Heparan Sulfate and Increased N-Sulfotransferase Activity in Mice Lacking Î±-l-iduronidase. Journal of Biological Chemistry, 2011, 286, 37515-37524.	1.6	58
566	Synovial joint formation requires local Ext1 expression and heparan sulfate production in developing mouse embryo limbs and spine. Developmental Biology, 2011, 351, 70-81.	0.9	52
567	A spoonful of sugar makes the melanoma go: the role of heparan sulfate proteoglycans in melanoma metastasis. Pigment Cell and Melanoma Research, 2011, 24, 1133-1147.	1.5	9

#	Article	IF	Citations
568	Golgi Glycosylation and Human Inherited Diseases. Cold Spring Harbor Perspectives in Biology, 2011, 3, a005371-a005371.	2.3	63
569	Genetic epistasis between heparan sulfate and FGFâ€“Ras signaling controls lens development. Developmental Biology, 2011, 355, 12-20.	0.9	34
570	Stage-dependent regulation of mammary ductal branching by heparan sulfate and HGF-cMet signaling. Developmental Biology, 2011, 355, 394-403.	0.9	46
571	Mapping the Differential Distribution of Glycosaminoglycans in the Adult Human Retina, Choroid, and Sclera. , 2011, 52, 6511.		103
572	Analysis of Glycosaminoglycans Using Mass Spectrometry. Current Proteomics, 2011, 8, 325-336.	0.1	46
573	SÃ©zary syndrome cells overexpress syndecan-4 bearing distinct heparan sulfate moieties that suppress T-cell activation by binding DC-HIL and trapping TGF-Î² on the cell surface. Blood, 2011, 117, 3382-3390.	0.6	33
574	Disruption of heparan sulfate proteoglycan conformation perturbs B-cell maturation and APRIL-mediated plasma cell survival. Blood, 2011, 117, 6162-6171.	0.6	48
575	Analysis of axon guidance defects at the optic chiasm in heparan sulphate sulphotransferase compound mutant mice. Journal of Anatomy, 2011, 219, 734-742.	0.9	15
576	DSulfatase-1 fine-tunes Hedgehog patterning activity through a novel regulatory feedback loop. Developmental Biology, 2011, 358, 168-180.	0.9	41
577	IsN-sulfation just a gateway modification during heparan sulfate biosynthesis?. FEBS Letters, 2011, 585, 3420-3423.	1.3	10
578	Ozonolysis of the double bond of the unsaturated uronate residue in low-molecular-weight heparin and K5 heparosan. Carbohydrate Research, 2011, 346, 1962-1966.	1.1	12
579	Glycosaminoglycans as regulators of stem cell differentiation. Biochemical Society Transactions, 2011, 39, 383-387.	1.6	59
580	Preparation of heparin/heparan sulfate oligosaccharides with internal N-unsubstituted glucosamine residues for functional studies. Glycoconjugate Journal, 2011, 28, 525-535.	1.4	11
581	Differential distribution of heparan sulfate glycoforms and elevated expression of heparan sulfate biosynthetic enzyme genes in the brain of mucopolysaccharidosis IIIB mice. Metabolic Brain Disease, 2011, 26, 9-19.	1.4	17
582	Fine-tuning of cell signaling by glypicans. Cellular and Molecular Life Sciences, 2011, 68, 923-929.	2.4	112
583	Targeted analysis of glycomics liquid chromatography/mass spectrometry data. Analytical and Bioanalytical Chemistry, 2011, 399, 727-735.	1.9	19
584	Hydrogen/deuterium exchange-LC-MS approach to characterize the action of heparan sulfate C5-epimerase. Analytical and Bioanalytical Chemistry, 2011, 401, 237-244.	1.9	22
585	Structural characterization of heparins from different commercial sources. Analytical and Bioanalytical Chemistry, 2011, 401, 2793-2803.	1.9	62

#	Article	IF	Citations
586	Changes in Expression of Proteoglycan Core Proteins and Heparan Sulfate Enzymes in the Developing and Adult Murine Aorta. Journal of Cardiovascular Translational Research, 2011, 4, 313-320.	1.1	10
587	Evolutional and clinical implications of the epigenetic regulation of protein glycosylation. Clinical Epigenetics, 2011, 2, 425-432.	1.8	19
588	Zebrafish Ext2 is necessary for Fgf and Wnt signaling, but not for Hh signaling. BMC Developmental Biology, 2011, 11, 53.	2.1	10
589	RB4CD12 epitope expression and heparan sulfate disaccharide composition in brain vasculature. Journal of Neuroscience Research, 2011, 89, 1840-1848.	1.3	7
591	Carbohydrate Coated Polymer Particles: Preparation and Proteinâ€binding Studies. Chinese Journal of Chemistry, 2011, 29, 333-342.	2.6	2
592	Sulfated is a negative feedback regulator of wingless in Drosophila. Developmental Dynamics, 2011, 240, 640-648.	0.8	23
593	Bioactive synthetic heparan sulfate and heparin derivatives: From long fragments mimetics to chimeras. Comptes Rendus Chimie, 2011, 14, 59-73.	0.2	24
594	RNA templating of molecular assembly and covalent modification patterning in early molecular evolution and modern biosystems. Journal of Theoretical Biology, 2011, 284, 32-41.	0.8	4
595	Virus driven evolution: A probable explanation for â€œSimilia Similibus Curanturâ€•philosophy. Infection, Genetics and Evolution, 2011, 11, 798-802.	1.0	9
596	Heparan sulfate 6-O-sulfotransferase 1 , a gene involved in extracellular sugar modifications, is mutated in patients with idiopathic hypogonadotrophic hypogonadism. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11524-11529.	3.3	153
597	Expression of heparan sulfate sulfotransferases in Kluyveromyces lactis and preparation of 3'-phosphoadenosine-5'-phosphosulfate. Glycobiology, 2011, 21, 771-780.	1.3	69
598	Host and Pathogen Glycosaminoglycan-Binding Proteins Modulate Antimicrobial Peptide Responses inDrosophila melanogaster. Infection and Immunity, 2011, 79, 606-616.	1.0	10
599	Identification of Amino Acid Residues Important for Heparan Sulfate Proteoglycan Interaction within Variable Region 3 of the Feline Immunodeficiency Virus Surface Glycoprotein. Journal of Virology, 2011, 85, 7108-7117.	1.5	13
600	The Dominating Role of N-Deacetylase/N-Sulfotransferase 1 in Forming Domain Structures in Heparan Sulfate. Journal of Biological Chemistry, 2011, 286, 19768-19776.	1.6	69
601	A Systems Biology Approach for the Investigation of the Heparin/Heparan Sulfate Interactome. Journal of Biological Chemistry, 2011, 286, 19892-19904.	1.6	203
602	Regulation of Wnt Secretion and Distribution. , 2011, , 19-33.		0
603	Understanding the molecular basis of age-related macular degeneration and how the identification of new mechanisms may aid the development of novel therapies. Expert Review of Ophthalmology, 2011, 6, 123-128.	0.3	11
604	Heparan Sulfate Sugar Modifications Mediate the Functions ofSlitsand Other Factors Needed for Mouse Forebrain Commissure Development. Journal of Neuroscience, 2011, 31, 1955-1970.	1.7	61

#	Article	IF	Citations
605	Serglycin Is a Major Proteoglycan in Polarized Human Endothelial Cells and Is Implicated in the Secretion of the Chemokine GROÎ±/CXCL1. Journal of Biological Chemistry, 2011, 286, 2636-2647.	1.6	48
606	Lacrimal Gland Development and Fgf10-Fgfr2b Signaling Are Controlled by 2-O- and 6-O-sulfated Heparan Sulfate. Journal of Biological Chemistry, 2011, 286, 14435-14444.	1.6	72
607	Genetic Analysis of the Heparan Modification Network in Caenorhabditis elegans. Journal of Biological Chemistry, 2011, 286, 16824-16831.	1.6	25
608	Comparative Assessment of the Effects of Gender-specific Heparan Sulfates on Mesenchymal Stem Cells. Journal of Biological Chemistry, 2011, 286, 17755-17765.	1.6	13
609	Dual Roles of the Cardin-Weintraub Motif in Multimeric Sonic Hedgehog. Journal of Biological Chemistry, 2011, 286, 23608-23619.	1.6	42
610	Lowered Expression of Heparan Sulfate/Heparin Biosynthesis Enzyme N-Deacetylase/N-Sulfotransferase 1 Results in Increased Sulfation of Mast Cell Heparin. Journal of Biological Chemistry, 2011, 286, 44433-44440.	1.6	36
611	Lymphatic Endothelial Heparan Sulfate Deficiency Results in Altered Growth Responses to Vascular Endothelial Growth Factor-C (VEGF-C). Journal of Biological Chemistry, 2011, 286, 14952-14962.	1.6	19
612	Highly Sulfated Nonreducing End-derived Heparan Sulfate Domains Bind Fibroblast Growth Factor-2 with High Affinity and Are Enriched in Biologically Active Fractions. Journal of Biological Chemistry, 2011, 286, 19311-19319.	1.6	33
615	MicroRNA-191 targets <italic>N</italic>-deacetylase/<italic>N</italic>-sulfotransferase 1 and promotes cell growth in human gastric carcinoma cell line MGC803. Acta Biochimica Et Biophysica Sinica, 2011, 43, 849-856.	0.9	36
616	Glycosaminoglycan Binding Facilitates Entry of a Bacterial Pathogen into Central Nervous Systems. PLoS Pathogens, 2011, 7, e1002082.	2.1	50
617	In vivo manipulation of heparan sulfate structure and its effect on Drosophila development. Glycobiology, 2011, 21, 607-618.	1.3	32
618	Dermatan sulfate epimerase 2 is the predominant isozyme in the formation of the chondroitin sulfate/dermatan sulfate hybrid structure in postnatal developing mouse brain. Glycobiology, 2011, 21, 565-574.	1.3	35
619	Substrate specificity of 6-O-endosulfatase (Sulf-2) and its implications in synthesizing anticoagulant heparan sulfate. Glycobiology, 2012, 22, 1353-1362.	1.3	26
620	Heparan Sulfate Biosynthesis. Journal of Histochemistry and Cytochemistry, 2012, 60, 898-907.	1.3	242
621	Th1 cytokine-induced syndecan-4 shedding by airway smooth muscle cells is dependent on mitogen-activated protein kinases. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2012, 302, L700-L710.	1.3	15
622	2-O-sulfotransferase regulates Wnt signaling, cell adhesion and cell cycle during zebrafish epiboly. Development (Cambridge), 2012, 139, 1296-1305.	1.2	21
623	Heparin-like heparan sulfate from rabbit cartilage. Glycobiology, 2012, 22, 248-257.	1.3	11
624	Binding affinities of vascular endothelial growth factor (VEGF) for heparin-derived oligosaccharides. Bioscience Reports, 2012, 32, 71-81.	1.1	111

#	Article	IF	Citations
625	Diabetic Nephropathy and Extracellular Matrix. Journal of Histochemistry and Cytochemistry, 2012, 60, 976-986.	1.3	240
626	Differential Sulfation Remodelling of Heparan Sulfate by Extracellular 6-O-Sulfatases Regulates Fibroblast Growth Factor-Induced Boundary Formation by Glial Cells: Implications for Glial Cell Transplantation. Journal of Neuroscience, 2012, 32, 15902-15912.	1.7	38
627	Extraction and structural analysis of glycosaminoglycans from formalin-fixed, paraffin-embedded tissues. Glycobiology, 2012, 22, 1666-1672.	1.3	7
628	Heparan Sulfate Biosynthesis. Journal of Histochemistry and Cytochemistry, 2012, 60, 908-915.	1.3	43
629	Toward a bioengineered heparin. Bioengineered, 2012, 3, 227-231.	1.4	11
630	Functional aspects of the interaction between interleukin-8 and sulfated glycosaminoglycans. Biomatter, 2012, 2, 142-148.	2.6	42
631	Involvement of heparan sulfate 3â€Oâ€sulfotransferase isoformâ€1 in the insulin secretion pathway. Journal of Diabetes Investigation, 2012, 3, 362-370.	1.1	13
632	Materials of marine origin: a review on polymers and ceramics of biomedical interest. International Materials Reviews, 2012, 57, 276-306.	9.4	173
633	Heparin-induced Leukocytosis Requires 6-O-Sulfation and Is Caused by Blockade of Selectin- and CXCL12 Protein-mediated Leukocyte Trafficking in Mice. Journal of Biological Chemistry, 2012, 287, 5542-5553.	1.6	27
634	A Genetic Model of Substrate Reduction Therapy for Mucopolysaccharidosis. Journal of Biological Chemistry, 2012, 287, 36283-36290.	1.6	21
635	Drosophila Heparan Sulfate, a Novel Design. Journal of Biological Chemistry, 2012, 287, 21950-21956.	1.6	20
636	Regulation of Glycan Structures in Murine Embryonic Stem Cells. Journal of Biological Chemistry, 2012, 287, 37835-37856.	1.6	91
637	Role of UDP-N-Acetylglucosamine (GlcNAc) and O-GlcNAcylation of Hyaluronan Synthase 2 in the Control of Chondroitin Sulfate and Hyaluronan Synthesis. Journal of Biological Chemistry, 2012, 287, 35544-35555.	1.6	120
638	Undersulfation of Heparan Sulfate Restricts Differentiation Potential of Mouse Embryonic Stem Cells. Journal of Biological Chemistry, 2012, 287, 10853-10862.	1.6	67
639	Uncovering Biphasic Catalytic Mode of C5-epimerase in Heparan Sulfate Biosynthesis. Journal of Biological Chemistry, 2012, 287, 20996-21002.	1.6	55
640	Identification of Amino Acid Residues Required for the Substrate Specificity of Human and Mouse Chondroitin Sulfate Hydrolase (Conventional Hyaluronidase-4)*. Journal of Biological Chemistry, 2012, 287, 42119-42128.	1.6	29
641	Organ-specific Sulfation Patterns of Heparan Sulfate Generated by Extracellular Sulfatases Sulf1 and Sulf2 in Mice. Journal of Biological Chemistry, 2012, 287, 9579-9590.	1.6	84
642	Chemoenzymatic synthesis of heparan sulfate and heparin. Biocatalysis and Biotransformation, 2012, 30, 296-308.	1.1	10

#	Article	IF	Citations
643	Arylsulfatase G inactivation causes loss of heparan sulfate 3- O -sulfatase activity and mucopolysaccharidosis in mice. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10310-10315.	3.3	61
644	Balancing life with glycoconjugates: Monitoring unfolded protein response-mediated anti-angiogenic action of tunicamycin by Raman spectroscopy. Pure and Applied Chemistry, 2012, 84, 1907-1918.	0.9	5
645	Inactivation of heparan sulfate 2-O-sulfotransferase accentuates neutrophil infiltration during acute inflammation in mice. Blood, 2012, 120, 1742-1751.	0.6	80
646	News on microenvironmental physioxia to revisit skin cell targeting approaches. Experimental Dermatology, 2012, 21, 723-728.	1.4	13
647	A Structural Analysis of Glycosaminoglycans from Lethal and Nonlethal Breast Cancer Tissues: Toward a Novel Class of Theragnostics for Personalized Medicine in Oncology?. OMICS A Journal of Integrative Biology, 2012, 16, 79-89.	1.0	50
648	Synthesis of heparinoligosaccharides and their interaction with eosinophil-derived neurotoxin. Organic and Biomolecular Chemistry, 2012, 10, 760-772.	1.5	43
649	Glypicans regulate JAK/STAT signaling and distribution of the Unpaired morphogen. Development (Cambridge), 2012, 139, 4162-4171.	1.2	53
650	Effect of the Substituents of the Neighboring Ring in the Conformational Equilibrium of Iduronate in Heparinâ€like Trisaccharides. Chemistry - A European Journal, 2012, 18, 16319-16331.	1.7	32
651	The proteoglycan repertoire of lymphoid cells. Glycoconjugate Journal, 2012, 29, 513-523.	1.4	22
652	Proteoglycan sequence. Molecular BioSystems, 2012, 8, 1613.	2.9	95
653	Structural basis of single molecular heparinâ€“FX06 interaction revealed by SPM measurements and molecular simulations. Chemical Communications, 2012, 48, 12222.	2.2	18
654	Interstitial Fluid and Lymph Formation and Transport: Physiological Regulation and Roles in Inflammation and Cancer. Physiological Reviews, 2012, 92, 1005-1060.	13.1	538
655	Structural basis of heparan sulfate-specific degradation by heparinase III. Protein and Cell, 2012, 3, 950-961.	4.8	21
656	Divergent Synthesis of 48 Heparan Sulfate-Based Disaccharides and Probing the Specific Sugarâ€“Fibroblast Growth Factor-1 Interaction. Journal of the American Chemical Society, 2012, 134, 20722-20727.	6.6	80
657	Human UDP-Î±-d-xylose Synthase andEscherichia coliArnA Conserve a Conformational Shunt That Controls Whether Xylose or 4-Keto-Xylose Is Produced. Biochemistry, 2012, 51, 8844-8855.	1.2	21
658	Tubular epithelial syndecan-1 maintains renal function in murine ischemia/reperfusion and human transplantation. Kidney International, 2012, 81, 651-661.	2.6	54
659	Heparan Sulfate Subdomains that are Degraded by Sulf Accumulate in Cerebral Amyloid ÃŸ Plaques of Alzheimer's Disease. American Journal of Pathology, 2012, 180, 2056-2067.	1.9	39
660	Analysis of glycosaminoglycan-derived disaccharides by capillary electrophoresis using laser-induced fluorescence detection. Analytical Biochemistry, 2012, 427, 91-98.	1.1	38

#	Article	IF	Citations
661	Molecular shuttle between extracellular and cytoplasmic space allows for monitoring of GAG biosynthesis in human articular chondrocytes. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 1391-1398.	1.1	5
662	Bone marrow-derived heparan sulfate potentiates the osteogenic activity of bone morphogenetic protein-2 (BMP-2). Bone, 2012, 50, 954-964.	1.4	105
663	Synthetic heparin. Current Opinion in Pharmacology, 2012, 12, 217-219.	1.7	74
664	Heparan Sulfate Facilitates FGF and BMP Signaling to Drive Mesoderm Differentiation of Mouse Embryonic Stem Cells. Journal of Biological Chemistry, 2012, 287, 22691-22700.	1.6	76
665	Structureâ€based design of decoy chemokines as a way to explore the pharmacological potential of glycosaminoglycans. British Journal of Pharmacology, 2012, 167, 1195-1205.	2.7	35
666	Role of heparan sulfate in sexually transmitted infections. Glycobiology, 2012, 22, 1402-1412.	1.3	63
667	Computational Modeling of Mass Transport and Its Relation to Cell Behavior in Tissue Engineering Constructs. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2012, , 85-105.	0.7	3
668	Potentiation of anti-angiogenic activity of heparin by blocking the ATIII-interacting pentasaccharide unit and increasing net anionic charge. Biomaterials, 2012, 33, 9070-9079.	5.7	21
669	Heparin Biosynthesis. Handbook of Experimental Pharmacology, 2012, , 23-41.	0.9	50
670	Current and Forthcoming Applications of ROMP Polymers â€“ Biorelated Polymers. , 2012, , 695-717.		4
671	Analysis of the Interaction between Heparin and Follistatin and Heparin and Follistatinâ€“Ligand Complexes Using Surface Plasmon Resonance. Biochemistry, 2012, 51, 6797-6803.	1.2	12
672	The Papillomavirus Virion: A Machine Built to Hide Molecular Achillesâ€™ Heels. Advances in Experimental Medicine and Biology, 2012, 726, 403-422.	0.8	35
673	Following Proteinâ€“Glycosaminoglycan Polysaccharide Interactions with Differential Scanning Fluorimetry. Methods in Molecular Biology, 2012, 836, 171-182.	0.4	4
674	Proteoglycans. Methods in Molecular Biology, 2012, 836, vii-viii.	0.4	2
675	Human PAPS Synthase Isoforms Are Dynamically Regulated Enzymes with Access to Nucleus and Cytoplasm. PLoS ONE, 2012, 7, e29559.	1.1	31
676	Chondroitin Sulfate Synthase-2 Is Necessary for Chain Extension of Chondroitin Sulfate but Not Critical for Skeletal Development. PLoS ONE, 2012, 7, e43806.	1.1	31
677	On the Specificity of Heparin/Heparan Sulfate Binding to Proteins. Anion-Binding Sites on Antithrombin and Thrombin Are Fundamentally Different. PLoS ONE, 2012, 7, e48632.	1.1	45
678	Polysaccharides from Red Algae: Genesis of a Renaissance. , 2012, , .		0

#	Article	IF	Citations
679	5.5 Syndecans as receptors for pericellular molecules. , 0, , .		0
680	2.5 Heparan sulfate design: regulation of biosynthesis. , 0, , .		0
681	Vertebrate protein glycosylation: diversity, synthesis and function. Nature Reviews Molecular Cell Biology, 2012, 13, 448-462.	16.1	1,372
682	Expression of heparan sulfate proteoglycans in murine models of experimental colitis*. Inflammatory Bowel Diseases, 2012, 18, 1112-1126.	0.9	12
683	Breast and Ovarian Cancers. Journal of Histochemistry and Cytochemistry, 2012, 60, 9-21.	1.3	103
684	Heparan Sulphate: A Heparin in Miniature. Handbook of Experimental Pharmacology, 2012, , 347-360.	0.9	24
685	Glycosaminoglycan-dependent restriction of FGF diffusion is necessary for lacrimal gland development. Development (Cambridge), 2012, 139, 2730-2739.	1.2	47
686	Specific interaction of the envelope glycoproteins E1 and E2 with liver heparan sulfate involved in the tissue tropismatic infection by hepatitis C virus. Glycoconjugate Journal, 2012, 29, 211-220.	1.4	21
687	Smooth Muscle Specific Deletion of Ndst1 Leads to Decreased Vessel Luminal Area and No Change in Blood Pressure in Conscious Mice. Journal of Cardiovascular Translational Research, 2012, 5, 274-279.	1.1	5
688	Microglial carbohydrate-binding receptors for neural repair. Cell and Tissue Research, 2012, 349, 215-227.	1.5	29
689	Fibroblast growth factor 2 and protein kinase C alpha are involved in syndecan-4 cytoplasmic domain modulation of turkey myogenic satellite cell proliferation. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2012, 161, 44-52.	0.8	19
690	Disaccharide analysis of glycosaminoglycan mixtures by ultra-high-performance liquid chromatographyâ€“mass spectrometry. Journal of Chromatography A, 2012, 1225, 91-98.	1.8	95
691	Mechanistic overview of reactive species-induced degradation of the endothelial glycocalyx during hepatic ischemia/reperfusion injury. Free Radical Biology and Medicine, 2012, 52, 1382-1402.	1.3	195
692	Metabolic engineering of Chinese hamster ovary cells: Towards a bioengineered heparin. Metabolic Engineering, 2012, 14, 81-90.	3.6	67
693	Replication and fineâ€mapping of a <scp>QTL</scp> for recurrent airway obstruction in <scp>E</scp>uropean <scp>W</scp>armblood horses. Animal Genetics, 2012, 43, 627-631.	0.6	16
694	Molecular model of human heparanase with proposed binding mode of a heparan sulfate oligosaccharide and catalytic amino acids. Biopolymers, 2012, 97, 21-34.	1.2	19
695	Engineering of routes to heparin and related polysaccharides. Applied Microbiology and Biotechnology, 2012, 93, 1-16.	1.7	106
696	Heparan sulfate in skeletal development, growth, and pathology: The case of hereditary multiple exostoses. Developmental Dynamics, 2013, 242, 1021-1032.	0.8	60

#	Article	IF	Citations
697	Heparan sulfate-protein binding specificity. Biochemistry (Moscow), 2013, 78, 726-735.	0.7	27
698	Computational Modeling in Tissue Engineering. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2013, , .	0.7	24
699	Mass preparation of oligosaccharides by the hydrolysis of chondroitin sulfate polysaccharides with a subcritical water microreaction system. Carbohydrate Research, 2013, 371, 16-21.	1.1	14
700	Synthetic heparin and heparan sulfate oligosaccharides and their protein interactions. Current Opinion in Chemical Biology, 2013, 17, 1023-1029.	2.8	40
702	Interfering with UDP-GlcNAc Metabolism and Heparan Sulfate Expression Using a Sugar Analogue Reduces Angiogenesis. ACS Chemical Biology, 2013, 8, 2331-2338.	1.6	32
703	Production methods for heparosan, a precursor of heparin and heparan sulfate. Carbohydrate Polymers, 2013, 93, 38-47.	5.1	29
704	Interstitial fluidâ€"A reflection of the tumor cell microenvironment and secretome. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 2336-2346.	1.1	33
705	Heparan sulfate in angiogenesis: a target for therapy. Angiogenesis, 2014, 17, 443-62.	3.7	48
706	Role of heparan sulfate in ocular diseases. Experimental Eye Research, 2013, 110, 1-9.	1.2	29
707	Glycosaminoglycans in infectious disease. Biological Reviews, 2013, 88, 928-943.	4.7	152
708	Heparan sulfate inhibitors and their therapeutic implications in inflammatory illnesses. Expert Opinion on Therapeutic Targets, 2013, 17, 965-975.	1.5	30
709	Molecular characterization, expression profiles, and association analysis with hematologic parameters of the porcine HPSE and HPSE2 genes. Journal of Applied Genetics, 2013, 54, 71-78.	1.0	8
710	Characterization of the interaction between Robo1 and heparin and other glycosaminoglycans. Biochimie, 2013, 95, 2345-2353.	1.3	25
712	Bioengineered Chinese Hamster Ovary Cells with Golgi-targeted 3-O-Sulfotransferase-1 Biosynthesize Heparan Sulfate with an Antithrombin-binding Site. Journal of Biological Chemistry, 2013, 288, 37308-37318.	1.6	27
713	Cortical Development. , 2013, , .		3
714	The endothelial glycocalyx as a potential modifier of the hemolytic uremic syndrome. European Journal of Internal Medicine, 2013, 24, 503-509.	1.0	31
715	Unexpected new roles for heparanase in Type 1 diabetes and immune gene regulation. Matrix Biology, 2013, 32, 228-233.	1.5	65
716	Microscale separation of heparosan, heparan sulfate, and heparin. Analytical Biochemistry, 2013, 434, 215-217.	1.1	9

#	Article	IF	Citations
717	The proteoglycan Trol controls the architecture of the extracellular matrix and balances proliferation and differentiation of blood progenitors in the Drosophila lymph gland. Developmental Biology, 2013, 384, 301-312.	0.9	48
718	Syndecans in cartilage breakdown and synovial inflammation. Nature Reviews Rheumatology, 2013, 9, 43-55.	3.5	62
719	An 'omics approach towards CHO cell engineering. Biotechnology and Bioengineering, 2013, 110, 1255-1271.	1.7	106
720	Perichondrium phenotype and border function are regulated by Ext1 and heparan sulfate in developing long bones: A mechanism likely deranged in Hereditary Multiple Exostoses. Developmental Biology, 2013, 377, 100-112.	0.9	56
721	The Drosophila GOLPH3 homolog regulates the biosynthesis of heparan sulfate proteoglycans by modulating the retrograde trafficking of exostosins. Development (Cambridge), 2013, 140, 2798-2807.	1.2	28
722	Method Development and Analysis of Free HS and HS in Proteoglycans from Pre- and Postmenopausal Women: Evidence for Biosynthetic Pathway Changes in Sulfotransferase and Sulfatase Enzymes. Analytical Chemistry, 2013, 85, 5917-5923.	3.2	19
723	Clinical and cytogenetic characterization of a boy with a de novo pure partial trisomy 16q24.1q24.3 and complex chromosome rearrangement. American Journal of Medical Genetics, Part A, 2013, 161, 897-900.	0.7	2
724	Biosynthesis and function of chondroitin sulfate. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4719-4733.	1.1	354
725	Glycomics, Glycobiology, and Glyco-Medicine. , 2013, , 173-191.		0
726	The Glycocode: Translating Heparan Sulfate Fine Structure into Developmental Function. Biology of Extracellular Matrix, 2013, , 3-18.	0.3	0
727	De Novo Sequencing of Heparan Sulfate Oligosaccharides by Electron-Activated Dissociation. Analytical Chemistry, 2013, 85, 11979-11986.	3.2	43
728	Analysis of Drosophila Glucuronyl C5-Epimerase. Journal of Biological Chemistry, 2013, 288, 34384-34393.	1.6	25
729	Synthesis and Assessment of Glycosaminoglycan Priming Activity of Cluster-xylosides for Potential Use as Proteoglycan Mimetics. ACS Chemical Biology, 2013, 8, 949-957.	1.6	9
730	Heparin Decamer Bridges a Growth Factor and an Oligolysine by Different Charge-Driven Interactions. Biomacromolecules, 2013, 14, 4091-4098.	2.6	9
731	Heparan sulfate proteoglycans in the control of <scp>B</scp> cell development and the pathogenesis of multiple myeloma. FEBS Journal, 2013, 280, 2180-2193.	2.2	47
732	Up-Regulation of Heparan Sulfate 6-O-Sulfation in Idiopathic Pulmonary Fibrosis. American Journal of Respiratory Cell and Molecular Biology, 2014, 50, 106-114.	1.4	30
733	Targeting of Heparanase-modified Syndecan-1 by Prosecretory Mitogen Lacritin Requires Conserved Core GAGAL plus Heparan and Chondroitin Sulfate as a Novel Hybrid Binding Site That Enhances Selectivity. Journal of Biological Chemistry, 2013, 288, 12090-12101.	1.6	31
734	FGFâ€“FGFR Signaling Mediated through Glycosaminoglycans in Microtiter Plate and Cell-Based Microarray Platforms. Biochemistry, 2013, 52, 9009-9019.	1.2	29

#	Article	IF	Citations
735	Counterion Condensation on Heparin Oligomers. Biomacromolecules, 2013, 14, 1113-1121.	2.6	16
736	The overexpression of glypican-5 promotes cancer cell migration and is associated with shorter overall survival in non-small cell lung cancer. Oncology Letters, 2013, 6, 1565-1572.	0.8	22
737	3-OST-7 Regulates BMP-Dependent Cardiac Contraction. PLoS Biology, 2013, 11, e1001727.	2.6	19
738	Heparanase and Autoimmune Diabetes. Frontiers in Immunology, 2013, 4, 471.	2.2	50
739	Quantitative Phosphoproteomics Analysis Reveals Broad Regulatory Role of Heparan Sulfate on Endothelial Signaling. Molecular and Cellular Proteomics, 2013, 12, 2160-2173.	2.5	21
740	Heparan Sulfate: A Ubiquitous Glycosaminoglycan with Multiple Roles in Immunity. Frontiers in Immunology, 2013, 4, 470.	2.2	128
741	Chemoenzymatic synthesis of glycosaminoglycans: Re-creating, re-modeling and re-designing nature's longest or most complex carbohydrate chains. Glycobiology, 2013, 23, 764-777.	1.3	126
742	Reduced Sulfation of Chondroitin Sulfate but Not Heparan Sulfate in Kidneys of Diabetic db/db Mice. Journal of Histochemistry and Cytochemistry, 2013, 61, 606-616.	1.3	16
743	Differential roles for 3-OSTs in the regulation of cilia length and motility. Development (Cambridge), 2013, 140, 3892-3902.	1.2	19
744	HSulf sulfatases catalyze processive and oriented 6â€Oâ€desulfation of heparan sulfate that differentially regulates fibroblast growth factor activity. FASEB Journal, 2013, 27, 2431-2439.	0.2	56
745	Overexpression of heparan sulfate 6-O-sulfotransferase-2 in colorectal cancer. Molecular and Clinical Oncology, 2013, 1, 845-850.	0.4	29
746	Pathophysiology of heparan sulphate: many diseases, few drugs. Journal of Internal Medicine, 2013, 273, 555-571.	2.7	160
747	Heparan sulfate: a key regulator of embryonic stem cell fate. Biological Chemistry, 2013, 394, 741-751.	1.2	66
748	Degraded Iota-Carrageenan Can Induce Apoptosis in Human Osteosarcoma Cells Via the Wnt/Î²-Catenin Signaling Pathway. Nutrition and Cancer, 2013, 65, 126-131.	0.9	31
749	Expression of chondroitin/dermatan sulfate glycosyltransferases during early zebrafish development. Developmental Dynamics, 2013, 242, 964-975.	0.8	21
750	Comparative glycomics of leukocyte glycosaminoglycans. FEBS Journal, 2013, 280, 2447-2461.	2.2	39
751	The Role of Drosophila Heparan Sulfate 6-O-Endosulfatase in Sulfation Compensation*. Journal of Biological Chemistry, 2013, 288, 6574-6582.	1.6	10
752	Drosophila Heparan Sulfate 6-O-Endosulfatase Sulf1 Facilitates Wingless (Wg) Protein Degradation. Journal of Biological Chemistry, 2013, 288, 5081-5089.	1.6	29

#	Article	IF	Citations
753	Tissue-Specific Host Recognition by Complement Factor H Is Mediated by Differential Activities of Its Glycosaminoglycan-Binding Regions. Journal of Immunology, 2013, 190, 2049-2057.	0.4	133
754	Heparan Sulfate 6-O-Sulfotransferase Isoform-dependent Regulatory Effects of Heparin on the Activities of Various Proteases in Mast Cells and the Biosynthesis of 6-O-Sulfated Heparin. Journal of Biological Chemistry, 2013, 288, 3705-3717.	1.6	20
755	Molecular Basis of Glycosaminoglycan Heparin Binding to the Chemokine CXCL1 Dimer. Journal of Biological Chemistry, 2013, 288, 25143-25153.	1.6	52
756	Discrimination of Xylose O-Glycosylation Sites in Mammalian Proteins. Chemistry Letters, 2013, 42, 1043-1045.	0.7	0
757	Tailored Design and Synthesis of Heparan Sulfate Oligosaccharide Analogues Using Sequential Oneâ€Pot Multienzyme Systems. Angewandte Chemie - International Edition, 2013, 52, 11852-11856.	7.2	72
759	Sugar Type Discrimination in <I>O</I>-glycosylation Based on Protein Primary Sequences. Journal of Biomechanical Science and Engineering, 2013, 8, 225-232.	0.1	1
760	Chemical Synthesis of Oligosaccharides Based on Heparin and Heparan Sulfate. Trends in Glycoscience and Glycotechnology, 2013, 25, 141-158.	0.0	13
761	Diabetes Results in Structural Alteration of Chondroitin Sulfate in the Urine. Journal of Pharmacy and Pharmaceutical Sciences, 2013, 16, 486.	0.9	11
762	Identification of Novel Biomarkers for Sepsis Prognosis via Urinary Proteomic Analysis Using iTRAQ Labeling and 2D-LC-MS/MS. PLoS ONE, 2013, 8, e54237.	1.1	69
763	The SULFs, Extracellular Sulfatases for Heparan Sulfate, Promote the Migration of Corneal Epithelial Cells during Wound Repair. PLoS ONE, 2013, 8, e69642.	1.1	33
764	A Network of HSPG Core Proteins and HS Modifying Enzymes Regulates Netrin-Dependent Guidance of D-Type Motor Neurons in Caenorhabditis elegans. PLoS ONE, 2013, 8, e74908.	1.1	25
765	The Role of Syndecan-1 in Cellular Signaling and its Effects on Heparan Sulfate Biosynthesis in Mesenchymal Tumors. Frontiers in Oncology, 2013, 3, 310.	1.3	55
766	Zebrafish 3-O-Sulfotransferase-4 Generated Heparan Sulfate Mediates HSV-1 Entry and Spread. PLoS ONE, 2014, 9, e87302.	1.1	16
767	Salinity-Induced Anti-Angiogenesis Activities and Structural Changes of the Polysaccharides from Cultured Cordyceps Militaris. PLoS ONE, 2014, 9, e103880.	1.1	17
768	Progress in the Identification of Dengue Virus Entry/Fusion Inhibitors. BioMed Research International, 2014, 2014, 1-13.	0.9	44
769	Potential Anti-HPV and Related Cancer Agents from Marine Resources: An Overview. Marine Drugs, 2014, 12, 2019-2035.	2.2	38
770	Toward a robust computational screening strategy for identifying glycosaminoglycan sequences that display high specificity for target proteins. Glycobiology, 2014, 24, 1323-1333.	1.3	38
771	GLCE regulates PC12 cell neuritogenesis induced by nerve growth factor through activating SMAD/ID3 signalling. Biochemical Journal, 2014, 459, 405-415.	1.7	7

#	Article	IF	Citations
772	Contribution of syndecan-4 genetic variants to hypertension, the TAMRISK study. BMC Research Notes, 2014, 7, 815.	0.6	11
773	Heparan Sulfate Regulates Hair Follicle and Sebaceous Gland Morphogenesis and Homeostasis. Journal of Biological Chemistry, 2014, 289, 25211-25226.	1.6	42
774	Modulation of heparan sulfate in the glomerular endothelial glycocalyx decreases leukocyte influx during experimental glomerulonephritis. Kidney International, 2014, 86, 932-942.	2.6	39
775	Podocyte-specific deletion of NDST1, a key enzyme in the sulfation of heparan sulfate glycosaminoglycans, leads to abnormalities in podocyte organization in vivo. Kidney International, 2014, 85, 307-318.	2.6	19
776	Deliberate Attenuation of Chikungunya Virus by Adaptation to Heparan Sulfate-Dependent Infectivity: A Model for Rational Arboviral Vaccine Design. PLoS Neglected Tropical Diseases, 2014, 8, e2719.	1.3	78
777	Complex Cooperative Functions of Heparan Sulfate Proteoglycans Shape Nervous System Development inCaenorhabditis elegans. G3: Genes, Genomes, Genetics, 2014, 4, 1859-1870.	0.8	33
778	Signaling Domain of Sonic Hedgehog as Cannibalistic Calcium-Regulated Zinc-Peptidase. PLoS Computational Biology, 2014, 10, e1003707.	1.5	10
779	â€˜Immunosequencingâ€™ of heparan sulfate from human cell lines and rat kidney: the (GlcNS6S-IdoA2S)3 motif, recognized by antibody NS4F5, is located towards the non-reducing end. Biochemical Journal, 2014, 461, 461-468.	1.7	4
780	Neuroendocrine Tumors Show Altered Expression of Chondroitin Sulfate, Glypican 1, Glypican 5, and Syndecan 2 Depending on Their Differentiation Grade. Frontiers in Oncology, 2014, 4, 15.	1.3	30
781	Transcriptional Activity of Heparan Sulfate Biosynthetic Machinery is Specifically Impaired in Benign Prostate Hyperplasia and Prostate Cancer. Frontiers in Oncology, 2014, 4, 79.	1.3	20
782	Human Genetic Disorders and Knockout Mice Deficient in Glycosaminoglycan. BioMed Research International, 2014, 2014, 1-24.	0.9	45
783	Crystal Structure of a Bacterial Unsaturated Glucuronyl Hydrolase with Specificity for Heparin. Journal of Biological Chemistry, 2014, 289, 4787-4797.	1.6	8
784	Maternal first-trimester iodine deficiency predicts poor cognitive outcome in English children. Archives of Disease in Childhood: Education and Practice Edition, 2014, 99, 239-239.	0.3	0
785	A Computational Framework for Heparan Sulfate Sequencing Using High-resolution Tandem Mass Spectra. Molecular and Cellular Proteomics, 2014, 13, 2490-2502.	2.5	25
786	Fibroblast Growth Factor-based Signaling through Synthetic Heparan Sulfate Blocks Copolymers Studied Using High Cell Density Three-dimensional Cell Printing. Journal of Biological Chemistry, 2014, 289, 9754-9765.	1.6	26
787	Role of 6-O-Sulfated Heparan Sulfate in Chronic Renal Fibrosis. Journal of Biological Chemistry, 2014, 289, 20295-20306.	1.6	26
788	Drosophila heparan sulfate 3-O sulfotransferase B Null Mutant Is Viable and Exhibits No Defects in Notch Signaling. Journal of Genetics and Genomics, 2014, 41, 369-378.	1.7	6
789	Analysis of 3-O-sulfo group-containing heparin tetrasaccharides in heparin by liquid chromatographyâ€“mass spectrometry. Analytical Biochemistry, 2014, 455, 3-9.	1.1	36

#	Article	IF	Citations
790	Heparan sulfate as a regulator of endochondral ossification and osteochondroma development. Matrix Biology, 2014, 34, 55-63.	1.5	41
791	Heparan sulfate expression in the neural crest is essential for mouse cardiogenesis. Matrix Biology, 2014, 35, 253-265.	1.5	19
792	Assays for determining heparan sulfate and heparin O-sulfotransferase activity and specificity. Analytical and Bioanalytical Chemistry, 2014, 406, 525-536.	1.9	17
793	Vascular biomechanical properties in mice with smooth muscle specific deletion of Ndst1. Molecular and Cellular Biochemistry, 2014, 385, 225-238.	1.4	5
794	Growth factorâ€“heparan sulfate â€œswitchesâ€•regulating stages of branching morphogenesis. Pediatric Nephrology, 2014, 29, 727-735.	0.9	20
795	Molecular docking of heparin oligosaccharides with Hep-II heparin-binding domain of fibronectin reveals an interplay between the different positions of sulfate groups. Glycoconjugate Journal, 2014, 31, 161-169.	1.4	13
796	Total Synthesis of Anticoagulant Pentasaccharide Fondaparinux. ChemMedChem, 2014, 9, 1071-1080.	1.6	41
797	Heparan sulfate signaling in cancer. Trends in Biochemical Sciences, 2014, 39, 277-288.	3.7	154
798	Synthetic di-sulfated iduronic acid attenuates asthmatic response by blocking T-cell recruitment to inflammatory sites. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8173-8178.	3.3	29
799	The Mechanisms and Physiological Relevance of Glycocalyx Degradation in Hepatic Ischemia/Reperfusion Injury. Antioxidants and Redox Signaling, 2014, 21, 1098-1118.	2.5	91
800	Structure and Response to Flow of the Glycocalyx Layer. Biophysical Journal, 2014, 106, 232-243.	0.2	70
801	Extracellular Matrix Components in the Pathogenesis of Type 1 Diabetes. Current Diabetes Reports, 2014, 14, 552.	1.7	92
802	Efficient synthesis of a library of heparin tri- and tetrasaccharides relevant to the substrate of heparanase. Organic Chemistry Frontiers, 2014, 1, 405-414.	2.3	26
803	The role of heparanase and the endothelial glycocalyx in the development of proteinuria. Nephrology Dialysis Transplantation, 2014, 29, 49-55.	0.4	90
804	Chemoenzymatic synthesis of heparan sulfate and heparin. Natural Product Reports, 2014, 31, 1676-1685.	5.2	169
805	Glycans in Regeneration. ACS Chemical Biology, 2014, 9, 96-104.	1.6	14
806	NDST1 missense mutations in autosomal recessive intellectual disability. American Journal of Medical Genetics, Part A, 2014, 164, 2753-2763.	0.7	34
807	Comprehensive Analysis of Herpes Simplex Virus 1 (HSV-1) Entry Mediated by Zebrafish 3- O -Sulfotransferase Isoforms: Implications for the Development of a Zebrafish Model of HSV-1 Infection. Journal of Virology, 2014, 88, 12915-12922.	1.5	17

#	Article	IF	Citations
808	Catalytic Mechanism and Mode of Action of the Periplasmic Alginate Epimerase AlgG. Journal of Biological Chemistry, 2014, 289, 6006-6019.	1.6	39
809	Syndecan Promotes Axon Regeneration by Stabilizing Growth Cone Migration. Cell Reports, 2014, 8, 272-283.	2.9	55
810	Hs3st-A and Hs3st-B regulate intestinal homeostasis in Drosophila adult midgut. Cellular Signalling, 2014, 26, 2317-2325.	1.7	12
811	Skeletal dysplasia, global developmental delay, and multiple congenital anomalies in a 5â€yearâ€old boyâ€"Report of the second family with B3GAT3 mutation and expansion of the phenotype. American Journal of Medical Genetics, Part A, 2014, 164, 1580-1586.	0.7	32
812	Bioengineering murine mastocytoma cells to produce anticoagulant heparin. Glycobiology, 2014, 24, 272-280.	1.3	14
813	Contrasting transcriptome landscapes of rabbit pluripotent stem cells in vitro and in vivo. Animal Reproduction Science, 2014, 149, 67-79.	0.5	15
814	Heparan sulfate proteoglycans and heparin regulate melanoma cell functions. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 2471-2481.	1.1	32
815	Heparan sulfate 3-O-sulfation: A rare modification in search of a function. Matrix Biology, 2014, 35, 60-72.	1.5	182
816	Reprint of: Heparan sulfate as a regulator of endochondral ossification and osteochondroma development. Matrix Biology, 2014, 35, 239-247.	1.5	17
817	Demystifying Heparan Sulfateâ€"Protein Interactions. Annual Review of Biochemistry, 2014, 83, 129-157.	5.0	610
818	A personal voyage through the proteoglycan field. Matrix Biology, 2014, 35, 3-7.	1.5	21
819	The extostosin family: Proteins with many functions. Matrix Biology, 2014, 35, 25-33.	1.5	106
820	The effect of acute and long-term physical activity on extracellular matrix and serglycin in human skeletal muscle. Physiological Reports, 2015, 3, e12473.	0.7	49
821	The Basement Membrane Proteoglycans Perlecan and Agrin. Current Topics in Membranes, 2015, 76, 255-303.	0.5	22
822	Diversity of Heparan Sulfate and HSV Entry: Basic Understanding and Treatment Strategies. Molecules, 2015, 20, 2707-2727.	1.7	42
823	Islet Heparan Sulfate but Not Heparan Sulfate Proteoglycan Core Protein Is Lost During Islet Isolation and Undergoes Recovery Post-Islet Transplantation. American Journal of Transplantation, 2015, 15, 2851-2864.	2.6	21
824	SDN-1/Syndecan Acts in Parallel to the Transmembrane Molecule MIG-13 to Promote Anterior Neuroblast Migration. G3: Genes, Genomes, Genetics, 2015, 5, 1567-1574.	0.8	17
825	Effective Synthesis of Î±â€<scp>d</scp>â€GlcNâ€(1â†'4)â€<scp>d</scp>â€GlcA/<scp>l</scp>â€IdoA Glycosidic Linkage under Gold(I) Catalysis. Asian Journal of Organic Chemistry, 2015, 4, 756-762.	1.3	16

#	Article	IF	Citations
826	Sugar tags and tumorigenesis. Frontiers in Cell and Developmental Biology, 2015, 3, 69.	1.8	3
827	Determinants of Glycosaminoglycan (GAG) Structure. Biomolecules, 2015, 5, 2003-2022.	1.8	121
828	Marine Polysaccharides from Algae with Potential Biomedical Applications. Marine Drugs, 2015, 13, 2967-3028.	2.2	477
829	Can We Produce Heparin/Heparan Sulfate Biomimetics Using â€œMother-Natureâ€•as the Gold Standard?. Molecules, 2015, 20, 4254-4276.	1.7	24
830	Syndecan-1 in Cancer: Implications for Cell Signaling, Differentiation, and Prognostication. Disease Markers, 2015, 2015, 1-13.	0.6	83
831	Mechanistic Contributions of Biological Cofactors in Islet Amyloid Polypeptide Amyloidogenesis. Journal of Diabetes Research, 2015, 2015, 1-13.	1.0	17
832	Role of the endothelial surface layer in neutrophil recruitment. Journal of Leukocyte Biology, 2015, 98, 503-515.	1.5	104
833	Interactions between nattokinase and heparin/GAGs. Glycoconjugate Journal, 2015, 32, 695-702.	1.4	7
834	Characterization of Hepatitis C Virus Interaction with Heparan Sulfate Proteoglycans. Journal of Virology, 2015, 89, 3846-3858.	1.5	66
835	A microscopic view on the renal endothelial glycocalyx. American Journal of Physiology - Renal Physiology, 2015, 308, F956-F966.	1.3	100
836	Heparin cofactor II is degraded by heparan sulfate and dextran sulfate. Biochemical and Biophysical Research Communications, 2015, 457, 585-588.	1.0	5
837	Proteoglycans of reactive rat cortical astrocyte cultures: Abundance of N-unsubstituted glucosamine-enriched heparan sulfate. Matrix Biology, 2015, 41, 8-18.	1.5	5
838	Glycosaminoglycanomics of Cultured Cells Using a Rapid and Sensitive LC-MS/MS Approach. ACS Chemical Biology, 2015, 10, 1303-1310.	1.6	58
839	Discovery of a Heparan Sulfate 3-O-Sulfation Specific Peeling Reaction. Analytical Chemistry, 2015, 87, 592-600.	3.2	35
840	C₅-Epimerase and 2-O-Sulfotransferase Associate in Vitro to Generate Contiguous Epimerized and 2-O-Sulfated Heparan Sulfate Domains. ACS Chemical Biology, 2015, 10, 1064-1071.	1.6	31
841	Glycosaminoglycans. Methods in Molecular Biology, 2015, 1229, v.	0.4	5
842	Sulf1 has ligand-dependent effects on canonical and non-canonical Wnt signalling. Journal of Cell Science, 2015, 128, 1408-1421.	1.2	15
843	Complementing the Sugar Code: Role of GAGs and Sialic Acid in Complement Regulation. Frontiers in Immunology, 2015, 6, 25.	2.2	74

#	Article	IF	Citations
844	Heparin and related polysaccharides: synthesis using recombinant enzymes and metabolic engineering. Applied Microbiology and Biotechnology, 2015, 99, 7465-7479.	1.7	54
845	High-resolution probing heparan sulfateâ€“antithrombin interaction on a single endothelial cell surface: single-molecule AFM studies. Physical Chemistry Chemical Physics, 2015, 17, 13301-13306.	1.3	20
846	Heparanase Stimulates Chondrogenesis and Is Up-Regulated in Human Ectopic Cartilage. American Journal of Pathology, 2015, 185, 1676-1685.	1.9	38
847	A new sequencing approach for N-unsubstituted heparin/heparan sulfate oligosaccharides. Glycobiology, 2015, 25, 714-725.	1.3	11
848	Tissue-specificity of heparan sulfate biosynthetic machinery in cancer. Cell Adhesion and Migration, 2015, 9, 452-459.	1.1	19
849	A â€œturn onâ€•fluorescent probe for heparin and its oversulfated chondroitin sulfate contaminant. Chemical Science, 2015, 6, 6361-6366.	3.7	91
850	Analysis of Total Human Urinary Glycosaminoglycan Disaccharides by Liquid Chromatographyâ€“Tandem Mass Spectrometry. Analytical Chemistry, 2015, 87, 6220-6227.	3.2	73
851	2-O-Sulfated Domains in Syndecan-1 Heparan Sulfate Inhibit Neutrophil Cathelicidin and Promote Staphylococcus aureus Corneal Infection. Journal of Biological Chemistry, 2015, 290, 16157-16167.	1.6	26
852	Facile chemoenzymatic synthesis of biotinylated heparosan hexasaccharide. Organic and Biomolecular Chemistry, 2015, 13, 5098-5101.	1.5	16
853	Macrophage polarization alters the expression and sulfation pattern of glycosaminoglycans. Glycobiology, 2015, 25, 502-513.	1.3	51
854	A common sugarâ€•nucleotideâ€•mediated mechanism of inhibition of (glycosamino)glycan biosynthesis, as evidenced by 6Fâ€•GalNAc (Ac ₃). FASEB Journal, 2015, 29, 2993-3002.	0.2	31
855	Glycosaminoglycan sulfation determines the biochemical properties of prion protein aggregates. Glycobiology, 2015, 25, 745-755.	1.3	12
856	The glycocalyxâ€”linking albuminuria with renal and cardiovascular disease. Nature Reviews Nephrology, 2015, 11, 667-676.	4.1	128
857	Role of Deacetylase Activity of N-Deacetylase/N-Sulfotransferase 1 in Forming N-Sulfated Domain in Heparan Sulfate. Journal of Biological Chemistry, 2015, 290, 20427-20437.	1.6	32
858	Sonic hedgehog processing and release are regulated by glypican heparan sulfate proteoglycans. Journal of Cell Science, 2015, 128, 2374-2385.	1.2	31
859	Preparation and characterization of heparin hexasaccharide library with N-unsubstituted glucosamine residues. Glycoconjugate Journal, 2015, 32, 643-653.	1.4	5
860	Cellular Interaction and Cytotoxicity of the Iowa Mutation of Apolipoprotein A-I (ApoA-IIowa) Amyloid Mediated by Sulfate Moieties of Heparan Sulfate. Journal of Biological Chemistry, 2015, 290, 24210-24221.	1.6	26
861	Studies of Highly-Ordered Heterodiantennary Mannose/Glucose-Functionalized Polymers and Concanavalin A Protein Interactions Using Isothermal Titration Calorimetry. Biomacromolecules, 2015, 16, 4013-4021.	2.6	32

#	Article	IF	Citations
862	High cell density cultivation of a recombinant Escherichia coli strain expressing a 6-O -sulfotransferase for the production of bioengineered heparin. Journal of Applied Microbiology, 2015, 118, 92-98.	1.4	13
863	Biochemical Roles of Eukaryotic Cell Surface Macromolecules. Advances in Experimental Medicine and Biology, 2015, , .	0.8	4
864	The role of heparan sulfate as determining pathogenic factor in complement factor H-associated diseases. Molecular Immunology, 2015, 63, 203-208.	1.0	21
865	Implications of recent accumulating knowledge about endothelial glycocalyx on anesthetic management. Journal of Anesthesia, 2015, 29, 269-278.	0.7	28
866	Glycosaminoglycans and infection. Frontiers in Bioscience - Landmark, 2016, 21, 1260-1277.	3.0	116
867	Tissue-Derived Matrices. , 2016, , 229-250.		0
868	Regulation of Chemokine Activity â€“ A Focus on the Role of Dipeptidyl Peptidase IV/CD26. Frontiers in Immunology, 2016, 7, 483.	2.2	74
869	RNA Contaminates Glycosaminoglycans Extracted from Cells and Tissues. PLoS ONE, 2016, 11, e0167336.	1.1	11
870	Heparanase Overexpression Reduces Hepcidin Expression, Affects Iron Homeostasis and Alters the Response to Inflammation. PLoS ONE, 2016, 11, e0164183.	1.1	16
871	Regulation of the Expression of Heparan Sulfate 3â€Oâ€Sulfotransferase 3B (HS3ST3B) by Inflammatory Stimuli in Human Monocytes. Journal of Cellular Biochemistry, 2016, 117, 1529-1542.	1.2	18
872	Retinal Proteoglycans Act as Cellular Receptors for Basement Membrane Assembly to Control Astrocyte Migration and Angiogenesis. Cell Reports, 2016, 17, 1832-1844.	2.9	38
873	Proteoglycans. , 2016, , 271-278.		5
874	Glycosylation of dengue virus glycoproteins and their interactions with carbohydrate receptors: possible targets for antiviral therapy. Archives of Virology, 2016, 161, 1751-1760.	0.9	25
875	NDST2 (N-Deacetylase/N-Sulfotransferase-2) Enzyme Regulates Heparan Sulfate Chain Length. Journal of Biological Chemistry, 2016, 291, 18600-18607.	1.6	28
876	Tumour-necrosis factor-Î± induces heparan sulfate 6-O-endosulfatase 1 (Sulf-1) expression in fibroblasts. International Journal of Biochemistry and Cell Biology, 2016, 80, 57-65.	1.2	14
877	Stem Cell Differentiation Mediated by Biomaterials/Surfaces. , 2016, , 187-251.		0
878	Hyaluronidase and Chondroitinase. Advances in Experimental Medicine and Biology, 2016, 925, 75-87.	0.8	33
879	Polymeric Biomaterials for Tissue Regeneration. , 2016, , .		4

#	Article	IF	Citations
880	N-sulfation of heparan sulfate is critical for syndecan-4-mediated podocyte cell-matrix interactions. American Journal of Physiology - Renal Physiology, 2016, 310, F1123-F1135.	1.3	9
881	Isothiouronium modification empowers pyrimidine-substituted curcumin analogs potent cytotoxicity and Golgi localization. European Journal of Medicinal Chemistry, 2016, 123, 849-857.	2.6	21
882	Modulating luminescence of Tb3+ with biomolecules for sensing heparin and its contaminant OSCS. Biosensors and Bioelectronics, 2016, 86, 858-863.	5.3	22
885	Inhibition of Human Metapneumovirus Binding to Heparan Sulfate Blocks Infection in Human Lung Cells and Airway Tissues. Journal of Virology, 2016, 90, 9237-9250.	1.5	47
886	Ion-pairing liquid chromatography with on-line electrospray ion trap mass spectrometry for the structural analysis of N-unsubstituted heparin/heparan sulfate. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2016, 1028, 71-76.	1.2	9
887	Heparan Sulfate: Biosynthesis, Structure, and Function. International Review of Cell and Molecular Biology, 2016, 325, 215-273.	1.6	214
888	Chemical Synthesis of Glycosaminoglycans. Chemical Reviews, 2016, 116, 8193-8255.	23.0	198
889	Minireview: Syndecans and their crucial roles during tissue regeneration. FEBS Letters, 2016, 590, 2408-2417.	1.3	65
890	Enzyme overexpressionâ€‰â€“â€‰an exercise toward understanding regulation of heparan sulfate biosynthesis. Scientific Reports, 2016, 6, 31242.	1.6	15
891	Postsynaptic SDC2 induces transsynaptic signaling via FGF22 for bidirectional synaptic formation. Scientific Reports, 2016, 6, 33592.	1.6	23
892	Novel mutation of EXT2 identified in a large family with multiple osteochondromas. Molecular Medicine Reports, 2016, 14, 4687-4691.	1.1	2
893	Detection of exostosin glycosyltransferase gene mutations in patients with non-hereditary osteochondromas of the mandibular condyle. Molecular and Clinical Oncology, 2016, 5, 295-299.	0.4	13
894	Viruses: As mediators in â€œ Ã‰lan vital â€•of the â€œcreativeâ€•evolution. Infection, Genetics and Evolution, 2016, 46, 78-84.	1.0	3
895	Epitope mapping by a Wnt-blocking antibody: evidence of the Wnt binding domain in heparan sulfate. Scientific Reports, 2016, 6, 26245.	1.6	44
896	Perspectives on Anti-Glycan Antibodies Gleaned from Development of a Community Resource Database. ACS Chemical Biology, 2016, 11, 1773-1783.	1.6	110
897	Emerging tools to study proteoglycan function during skeletal development. Methods in Cell Biology, 2016, 134, 485-530.	0.5	9
898	Interfering with the CCL2â€“glycosaminoglycan axis as a potential approach to modulate neuroinflammation. Neuroscience Letters, 2016, 626, 164-173.	1.0	16
899	Glypican1/2/4/6 and sulfated glycosaminoglycans regulate the patterning of the primary body axis in the cnidarian Nematostella vectensis. Developmental Biology, 2016, 414, 108-120.	0.9	7

#	Article	IF	Citations
900	Proteoglycans and axon guidance: a new relationship between old partners. Journal of Neurochemistry, 2016, 139, 58-75.	2.1	32
901	Molecularly imprinted cryogels for chondroitin sulfate recognition. Artificial Cells, Nanomedicine and Biotechnology, 2016, 44, 610-617.	1.9	0
902	Anatomy of the Lungs. , 2016, , 3-21.e5.		6
903	Sequence determination of synthesized chondroitin sulfate dodecasaccharides. Glycobiology, 2016, 26, 592-606.	1.3	15
904	Pharmacology of Heparin and Related Drugs. Pharmacological Reviews, 2016, 68, 76-141.	7.1	250
905	Formal Synthesis of Anticoagulant Drug Fondaparinux Sodium. Journal of Organic Chemistry, 2016, 81, 162-184.	1.7	29
906	Function of Membrane-Associated Proteoglycans in the Regulation of Satellite Cell Growth. Advances in Experimental Medicine and Biology, 2016, 900, 61-95.	0.8	3
907	Cell surface heparan sulfate proteoglycans as novel markers of human neural stem cell fate determination. Stem Cell Research, 2016, 16, 92-104.	0.3	62
908	Deletion of exon 8 from the EXT1 gene causes multiple osteochondromas (MO) in a family with three affected members. SpringerPlus, 2016, 5, 71.	1.2	6
909	Mutations in Complement Factor H Impair Alternative Pathway Regulation on Mouse Glomerular Endothelial Cells in Vitro. Journal of Biological Chemistry, 2016, 291, 4974-4981.	1.6	18
910	Expanding the 3-O-Sulfate Proteomeâ€”Enhanced Binding of Neuropilin-1 to 3-O-Sulfated Heparan Sulfate Modulates Its Activity. ACS Chemical Biology, 2016, 11, 971-980.	1.6	57
911	Bioengineered heparins and heparan sulfates. Advanced Drug Delivery Reviews, 2016, 97, 237-249.	6.6	98
912	Hepatocyte Heparan Sulfate Is Required for Adeno-Associated Virus 2 but Dispensable for Adenovirus 5 Liver Transduction In Vivo. Journal of Virology, 2016, 90, 412-420.	1.5	30
913	Mechanisms of FGF gradient formation during embryogenesis. Seminars in Cell and Developmental Biology, 2016, 53, 94-100.	2.3	43
914	Altered heparan sulfate structure in Glceâˆ’/âˆ’ mice leads to increased Hedgehog signaling in endochondral bones. Matrix Biology, 2016, 49, 82-92.	1.5	16
915	Heparan sulfation is essential for the prevention of cellular senescence. Cell Death and Differentiation, 2016, 23, 417-429.	5.0	34
916	Arylsulfatase K is the Lysosomal 2-Sulfoglucuronate Sulfatase. ACS Chemical Biology, 2017, 12, 367-373.	1.6	12
917	Participation of 3â€Oâ€sulfated heparan sulfates in the protection of macrophages by herpes simplex virusâ€1 glycoprotein D and cyclophilin B against apoptosis. FEBS Open Bio, 2017, 7, 133-148.	1.0	6

#	Article	IF	Citations
918	Adipose stem cell-derived nanovesicles inhibit emphysema primarily via an FGF2-dependent pathway. Experimental and Molecular Medicine, 2017, 49, e284-e284.	3.2	66
919	Aliphatic Polyethers with Sulfate, Carboxylate, and Hydroxyl Side Groupsâ€"Do They Show Anticoagulant Properties?. Macromolecular Bioscience, 2017, 17, .	2.1	2
920	Heparanase: roles in cell survival, extracellular matrix remodelling and the development of kidney disease. Nature Reviews Nephrology, 2017, 13, 201-212.	4.1	104
921	Sulfation of Glycosaminoglycans and Its Implications in Human Health and Disorders. Annual Review of Biomedical Engineering, 2017, 19, 1-26.	5.7	227
922	Lumican Peptides: Rational Design Targeting ALK5/TGFBRI. Scientific Reports, 2017, 7, 42057.	1.6	30
923	Sulfatase 2 Modulates Fate Change from Motor Neurons to Oligodendrocyte Precursor Cells through Coordinated Regulation of Shh Signaling with Sulfatase 1. Developmental Neuroscience, 2017, 39, 361-374.	1.0	15
924	Hereditary Multiple Exostoses: New Insights into Pathogenesis, Clinical Complications, and Potential Treatments. Current Osteoporosis Reports, 2017, 15, 142-152.	1.5	86
925	Highly sensitive fluorescence detection of heparin based on aggregation-induced emission of a tetraphenylethene derivative. Biosensors and Bioelectronics, 2017, 90, 245-250.	5.3	47
926	Targeting heparin and heparan sulfate protein interactions. Organic and Biomolecular Chemistry, 2017, 15, 5656-5668.	1.5	128
927	Protein Reviews. Advances in Experimental Medicine and Biology, 2017, , .	0.8	1
928	Comparative transcriptome analysis of Rimicaris sp. reveals novel molecular features associated with survival in deep-sea hydrothermal vent. Scientific Reports, 2017, 7, 2000.	1.6	28
929	Syndecanâ€1 limits the progression of liver injury and promotes liver repair in acetaminophenâ€induced liver injury in mice. Hepatology, 2017, 66, 1601-1615.	3.6	30
930	Effects of temperature, concentration, and isomer on the hydration structure in monosaccharide solutions. Physical Chemistry Chemical Physics, 2017, 19, 15239-15246.	1.3	5
931	Structural Analysis of Heparin-Derived 3- O -Sulfated Tetrasaccharides: Antithrombin Binding Site Variants. Journal of Pharmaceutical Sciences, 2017, 106, 973-981.	1.6	48
932	Silencing HS6ST3 inhibits growth and progression of breast cancer cells through suppressing IGF1R and inducing XAF1. Experimental Cell Research, 2017, 350, 380-389.	1.2	27
933	Drugâ€Mediated Regulation of Glycosaminoglycan Biosynthesis. Medicinal Research Reviews, 2017, 37, 1051-1094.	5.0	29
934	Heparan Sulfate Domains Required for Fibroblast Growth Factor 1 and 2 Signaling through Fibroblast Growth Factor Receptor 1c. Journal of Biological Chemistry, 2017, 292, 2495-2509.	1.6	43
935	Coupling of vinculin to F-actin demands Syndecan-4 proteoglycan. Matrix Biology, 2017, 63, 23-37.	1.5	46

#	Article	IF	Citations
936	Transcriptome portrait of cellulose-enriched flax fibres at advanced stage of specialization. Plant Molecular Biology, 2017, 93, 431-449.	2.0	58
937	Heparan Sulfate and Chondroitin Sulfate Glycosaminoglycans Are Targeted by Bleomycin in Cancer Cells. Cellular Physiology and Biochemistry, 2017, 43, 1220-1234.	1.1	13
938	Synthetic Xylosides: Probing the Glycosaminoglycan Biosynthetic Machinery for Biomedical Applications. Accounts of Chemical Research, 2017, 50, 2693-2705.	7.6	27
939	Guanidinylated Neomycin Conjugation Enhances Intranasal Enzyme Replacement in the Brain. Molecular Therapy, 2017, 25, 2743-2752.	3.7	10
940	Versatile Separation and Analysis of Heparan Sulfate Oligosaccharides Using Graphitized Carbon Liquid Chromatography and Electrospray Mass Spectrometry. Analytical Chemistry, 2017, 89, 8942-8950.	3.2	27
941	A novel water-soluble AIE-based fluorescence probe with red emission for the sensitive detection of heparin in aqueous solution and human serum samples. Tetrahedron Letters, 2017, 58, 3681-3686.	0.7	15
942	Roles of two types of heparan sulfate clusters in Wnt distribution and signaling in Xenopus. Nature Communications, 2017, 8, 1973.	5.8	38
943	Sequencing of glycosaminoglycans with potential to interrogate sequence-specific interactions. Scientific Reports, 2017, 7, 14785.	1.6	11
944	Heparan sulfate proteoglycans as key regulators of the mesenchymal niche of hematopoietic stem cells. Glycoconjugate Journal, 2017, 34, 377-391.	1.4	39
945	Structure Based Substrate Specificity Analysis of Heparan Sulfate 6-O-Sulfotransferases. ACS Chemical Biology, 2017, 12, 73-82.	1.6	36
946	Ubiquitous Importance of Protein Glycosylation. Methods in Molecular Biology, 2017, 1503, 1-12.	0.4	28
947	MDA-MB-231 breast cancer cell viability, motility and matrix adhesion are regulated by a complex interplay of heparan sulfate, chondroitinâˆ'/dermatan sulfate and hyaluronan biosynthesis. Glycoconjugate Journal, 2017, 34, 411-420.	1.4	24
948	Surprising absence of heparin in the intestinal mucosa of baby pigs. Glycobiology, 2017, 27, 57-63.	1.3	14
949	The â€œin and outâ€•of glucosamine 6-O-sulfation: the 6th sense of heparan sulfate. Glycoconjugate Journal, 2017, 34, 285-298.	1.4	64
950	Key Matrix Proteins Within the Pancreatic Islet Basement Membrane Are Differentially Digested During Human Islet Isolation. American Journal of Transplantation, 2017, 17, 451-461.	2.6	50
951	Biological roles of glycans. Glycobiology, 2017, 27, 3-49.	1.3	1,676
952	Glomerular basement membrane heparan sulfate in health and disease: A regulator of local complement activation. Matrix Biology, 2017, 57-58, 299-310.	1.5	34
953	Quantitative analysis of the major linkage region tetrasaccharides in heparin. Carbohydrate Polymers, 2017, 157, 244-250.	5.1	11

#	Article	IF	Citations
954	The function of heparan sulfate during branching morphogenesis. Matrix Biology, 2017, 57-58, 311-323.	1.5	61
955	Glycosaminoglycan-Mediated Downstream Signaling of CXCL8 Binding to Endothelial Cells. International Journal of Molecular Sciences, 2017, 18, 2605.	1.8	21
956	Epigenetic Regulation of the Biosynthesis & Enzymatic Modification of Heparan Sulfate Proteoglycans: Implications for Tumorigenesis and Cancer Biomarkers. International Journal of Molecular Sciences, 2017, 18, 1361.	1.8	20
957	Melanoma Cell Adhesion and Migration Is Modulated by the Uronyl 2-O Sulfotransferase. PLoS ONE, 2017, 12, e0170054.	1.1	9
958	A molecular dynamics-based algorithm for evaluating the glycosaminoglycan mimicking potential of synthetic, homogenous, sulfated small molecules. PLoS ONE, 2017, 12, e0171619.	1.1	22
959	Functional Requirements for Heparan Sulfate Biosynthesis in Morphogenesis and Nervous System Development in C. elegans. PLoS Genetics, 2017, 13, e1006525.	1.5	19
960	Industrial Production of Glycosaminoglycans. , 2017, , .		6
961	Identification of mutations in EXT1 and EXT2 genes in six Chinese families with multiple osteochondromas. Molecular Medicine Reports, 2017, 16, 5599-5605.	1.1	2
962	The multifaceted roles of perlecan in fibrosis. Matrix Biology, 2018, 68-69, 150-166.	1.5	40
963	Potential role for Ext1-dependent heparan sulfate in regulating P311 gene expression in A549 carcinoma cells. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 1472-1481.	1.1	6
964	Heparan sulfate 3- O -sulfotransferase 2 (HS3ST2) displays an unexpected subcellular localization in the plasma membrane. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 1644-1655.	1.1	12
965	Novel exostosin-2 mutation identified in a Chinese family with hereditary multiple osteochondroma. Oncology Letters, 2018, 15, 4383-4389.	0.8	4
966	SnapShot: O-Glycosylation Pathways across Kingdoms. Cell, 2018, 172, 632-632.e2.	13.5	72
967	Specificity of glycosaminoglycanâ€“protein interactions. Current Opinion in Structural Biology, 2018, 50, 101-108.	2.6	137
968	Genetic and enzymatic characterization of 3-O-sulfotransferase SNPs associated with Plasmodium falciparum parasitaemia. Glycobiology, 2018, 28, 534-541.	1.3	5
969	Drosophila Glypicans Regulate Follicle Stem Cell Maintenance and Niche Competition. Genetics, 2018, 209, 537-549.	1.2	14
970	Structural analysis of synthetic heparan sulfate oligosaccharides with fibroblast growth factors and heparin-binding hemagglutinin. Current Opinion in Structural Biology, 2018, 50, 126-133.	2.6	13
971	Negative Electron Transfer Dissociation Sequencing of 3-O-Sulfation-Containing Heparan Sulfate Oligosaccharides. Journal of the American Society for Mass Spectrometry, 2018, 29, 1262-1272.	1.2	20

#	Article	IF	Citations
972	Novel Anti-Inflammatory Peptides Based on Chemokineâ€“Glycosaminoglycan Interactions Reduce Leukocyte Migration and Disease Severity in a Model of Rheumatoid Arthritis. Journal of Immunology, 2018, 200, 3201-3217.	0.4	23
973	Signaling systems affecting the severity of multiple osteochondromas. Bone, 2018, 111, 71-81.	1.4	11
974	A de novo mutation in the EXT2 gene associated with osteochondromatosis in a litter of American Staffordshire Terriers. Journal of Veterinary Internal Medicine, 2018, 32, 986-992.	0.6	14
975	Excess maternal and postnatal thyroxine alters chondrocyte numbers and the composition of the extracellular matrix of growth cartilage in rats. Connective Tissue Research, 2018, 59, 73-84.	1.1	3
976	Effects of heparan sulfate proteoglycan syndecan-4 on the insulin secretory response in a mouse pancreatic Î²-cell line, MIN6. Molecular and Cellular Endocrinology, 2018, 470, 142-150.	1.6	9
977	Dynamic covalent chemistry enables formation of antimicrobial peptide quaternary assemblies in a completely abiotic manner. Nature Chemistry, 2018, 10, 45-50.	6.6	54
978	More than a biomarker: the systemic consequences of heparan sulfate fragments released during endothelial surface layer degradation (2017 Grover Conference Series). Pulmonary Circulation, 2018, 8, 1-10.	0.8	19
979	Syndecan-1 promotes Wnt/Î²-catenin signaling in multiple myeloma by presenting Wnts and R-spondins. Blood, 2018, 131, 982-994.	0.6	68
980	Characterization of heparan sulfate N -deacetylase/ N -sulfotransferase isoform 4 using synthetic oligosaccharide substrates. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 547-556.	1.1	10
981	Metabolic engineering of mammalian cells to produce heparan sulfates. Emerging Topics in Life Sciences, 2018, 2, 443-452.	1.1	4
982	Structural Features of Heparan Sulfate from Multiple Osteochondromas and Chondrosarcomas. Molecules, 2018, 23, 3277.	1.7	6
983	Interstitial Fluid in Gynecologic Tumors and Its Possible Application in the Clinical Practice. International Journal of Molecular Sciences, 2018, 19, 4018.	1.8	8
984	Sulfotransferase and Heparanase: Remodeling Engines in Promoting Virus Infection and Disease Development. Frontiers in Pharmacology, 2018, 9, 1315.	1.6	19
985	Recombinant Heparinâ€”New Opportunities. Frontiers in Medicine, 2018, 5, 341.	1.2	12
986	Differential binding of chemokines CXCL1, CXCL2 and CCL2 to mouse glomerular endothelial cells reveals specificity for distinct heparan sulfate domains. PLoS ONE, 2018, 13, e0201560.	1.1	13
987	Impact of Temperature on Heparin and Protein Interactions. Biochemistry & Physiology, 2018, 07, .	0.2	14
988	A novel EXT2 frameshift mutation identified in a family with multiple osteochondromas. Oncology Letters, 2018, 16, 5167-5171.	0.8	1
989	The Pro-Tumoral Activity of Heparan Sulfate 3-O-Sulfotransferase 3B (HS3ST3B) in Breast Cancer MDA-MB-231 Cells Is Dependent on the Expression of Neuropilin-1. Molecules, 2018, 23, 2718.	1.7	9

#	Article	IF	Citations
990	Host Enzymes Heparanase and Cathepsin L Promote Herpes Simplex Virus 2 Release from Cells. Journal of Virology, 2018, 92, .	1.5	40
991	Dynamic Expression of Genes Involved in Proteoglycan/Glycosaminoglycan Metabolism during Skin Development. BioMed Research International, 2018, 2018, 1-16.	0.9	2
992	Embryonic Stem Cell Engineering with a Glycomimetic FGF2/BMP4 Co-Receptor Drives Mesodermal Differentiation in a Three-Dimensional Culture. ACS Chemical Biology, 2018, 13, 2880-2887.	1.6	20
993	Deciphering the mode of action, structural and biochemical analysis of heparinase II/III (PsPL12a) a new member of family 12 polysaccharide lyase from Pseudopedobacter saltans. Annals of Microbiology, 2018, 68, 409-418.	1.1	5
994	The heparan sulfate proteoglycan grip on hyperlipidemia and atherosclerosis. Matrix Biology, 2018, 71-72, 262-282.	1.5	36
995	The role of heparan sulfate in host macrophage infection by Leishmania species. Biochemical Society Transactions, 2018, 46, 789-796.	1.6	8
996	Syndecans and Enzymes Involved in Heparan Sulfate Biosynthesis and Degradation Are Differentially Expressed During Human Odontogenesis. Frontiers in Physiology, 2018, 9, 732.	1.3	11
997	Chitosanâ€Based Heparan Sulfate Mimetics Promote Epidermal Formation in a Human Organotypic Skin Model. Advanced Functional Materials, 2018, 28, 1802818.	7.8	21
998	Heparan Sulfate Proteoglycans as Emerging Players in Synaptic Specificity. Frontiers in Molecular Neuroscience, 2018, 11, 14.	1.4	78
999	An Inhalable Powder Formulation Based on Micro- and Nanoparticles Containing 5-Fluorouracil for the Treatment of Metastatic Melanoma. Nanomaterials, 2018, 8, 75.	1.9	19
1000	Downstream Products are Potent Inhibitors of the Heparan Sulfate 2-O-Sulfotransferase. Scientific Reports, 2018, 8, 11832.	1.6	11
1001	The GAGOme: a cell-based library of displayed glycosaminoglycans. Nature Methods, 2018, 15, 881-888.	9.0	113
1002	Differential calixarene receptors create patterns that discriminate glycosaminoglycans. Organic Chemistry Frontiers, 2018, 5, 2685-2691.	2.3	33
1003	Overexpression of Glypican 5 (GPC5) Inhibits Prostate Cancer Cell Proliferation and Invasion via Suppressing Sp1-Mediated EMT and Activation of Wnt/Î²-Catenin Signaling. Oncology Research, 2018, 26, 565-572.	0.6	27
1004	The heparan sulfate 3-O-sulfotransferases (HS3ST) 2, 3B and 4 enhance proliferation and survival in breast cancer MDA-MB-231 cells. PLoS ONE, 2018, 13, e0194676.	1.1	17
1005	Structural basis of oligosaccharide processing by glycosaminoglycan sulfotransferases. Glycobiology, 2018, 28, 885-897.	1.3	2
1006	A novel EXT2 mutation in a consanguineous family with severe developmental delay, microcephaly, seizures, feeding difficulties, and osteopenia extends the phenotypic spectrum of autosomal recessive EXT2-related syndrome (AREXT2). European Journal of Medical Genetics, 2019, 62, 259-264.	0.7	11
1007	Preventive effect on endothelial surface layer damage of Fusu agent in LPS-induced acute lung injury in rats. Molecular and Cellular Biochemistry, 2019, 450, 113-123.	1.4	7

#	Article	IF	Citations
1008	Assembly of B4GALT1/ST6GAL1 heteromers in the Golgi membranes involves lateral interactions via highly charged surface domains. Journal of Biological Chemistry, 2019, 294, 14383-14393.	1.6	29
1009	Sequencing Heparan Sulfate Using HILIC LC-NETD-MS/MS. Analytical Chemistry, 2019, 91, 11738-11746.	3.2	22
1010	Soluble syndecan-3 binds chemokines, reduces leukocyte migration in vitro and ameliorates disease severity in models of rheumatoid arthritis. Arthritis Research and Therapy, 2019, 21, 172.	1.6	28
1011	Exostosin-1 enhances canonical Wnt signaling activity during chondrogenic differentiation. Osteoarthritis and Cartilage, 2019, 27, 1702-1710.	0.6	25
1012	The Emerging Roles of Heparan Sulfate 3-O-Sulfotransferases in Cancer. Frontiers in Oncology, 2019, 9, 507.	1.3	33
1013	Chondroitin, Dermatan, Heparan, and Keratan Sulfate: Structure and Functions. Biologically-inspired Systems, 2019, , 187-233.	0.4	7
1014	Identification of a novel 43-bp insertion in the heparan sulfate 6-O-sulfotransferase 3 (HS6ST3) gene and its associations with growth and carcass traits in chickens. Animal Biotechnology, 2019, 30, 252-259.	0.7	18
1015	Glomerular permeability is not affected by heparan sulfate glycosaminoglycan deficiency in zebrafish embryos. American Journal of Physiology - Renal Physiology, 2019, 317, F1211-F1216.	1.3	10
1016	Tools for the Quality Control of Pharmaceutical Heparin. Medicina (Lithuania), 2019, 55, 636.	0.8	5
1017	Structural Biology of the FGF7 Subfamily. Frontiers in Genetics, 2019, 10, 102.	1.1	36
1018	Glycosylation in the Tumor Microenvironment: Implications for Tumor Angiogenesis and Metastasis. Cells, 2019, 8, 544.	1.8	64
1019	Modulation of Intestinal Epithelial Glycocalyx Development by Human Milk Oligosaccharides and Nonâ€Digestible Carbohydrates. Molecular Nutrition and Food Research, 2019, 63, e1900303.	1.5	67
1020	Glypicans Dally and Dally-like control injury-induced allodynia in Drosophila. Molecular Pain, 2019, 15, 174480691985677.	1.0	3
1021	Specificity and action pattern of heparanase Bp, a Î²-glucuronidase from Burkholderia pseudomallei. Glycobiology, 2019, 29, 572-581.	1.3	10
1022	Triglyceride-rich lipoprotein binding and uptake by heparan sulfate proteoglycan receptors in a CRISPR/Cas9 library of Hep3B mutants. Glycobiology, 2019, 29, 582-592.	1.3	13
1023	Sulfated polysaccharide-based scaffolds for orthopaedic tissue engineering. Biomaterials, 2019, 214, 119214.	5.7	92
1024	The Science and Regulations of Naturally Derived Complex Drugs. AAPS Advances in the Pharmaceutical Sciences Series, 2019, , .	0.2	0
1025	Analysis of Heparan sulfate/heparin from Colla corii asini by liquid chromatography-electrospray ion trap mass spectrometry. Glycoconjugate Journal, 2019, 36, 211-218.	1.4	7

#	Article	IF	Citations
1026	Heparanase promotes glioma progression via enhancing CD24 expression. International Journal of Cancer, 2019, 145, 1596-1608.	2.3	33
1027	Linear Synthesis of De novo Oligoâ€Iduronic Acid. European Journal of Organic Chemistry, 2019, 2019, 2950-2953.	1.2	8
1028	Complex Natural Product Heparin: Biosynthesis, Biology, and Application via Synthetic Heparins. AAPS Advances in the Pharmaceutical Sciences Series, 2019, , 45-58.	0.2	0
1029	Heparin Contamination and Issues Related to Raw Materials and Controls. AAPS Advances in the Pharmaceutical Sciences Series, 2019, , 191-206.	0.2	3
1030	Substrate binding mode and catalytic mechanism of human heparan sulfate <scp>d</scp> -glucuronyl C5 epimerase. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6760-6765.	3.3	23
1031	Establishment and characterization of Drosophila cell lines mutant for heparan sulfate modifying enzymes. Glycobiology, 2019, 29, 479-489.	1.3	8
1032	Loss of the Heparan Sulfate Proteoglycan Glypican5 Facilitates Long-Range Sonic Hedgehog Signaling. Stem Cells, 2019, 37, 899-909.	1.4	8
1033	Secondary structure and topology of the transmembrane domain of Syndecanâ€2 in detergent micelles. FEBS Letters, 2019, 593, 554-561.	1.3	6
1034	Heparan sulfate negatively regulates intestinal stem cell proliferation in Drosophila adult midgut. Biology Open, 2019, 8, .	0.6	8
1035	Serum Albuminâ€“Peptide Conjugates for Simultaneous Heparin Binding and Detection. ACS Omega, 2019, 4, 21891-21899.	1.6	16
1036	Heparinoid Complex-Based Heparin-Binding Cytokines and Cell Delivery Carriers. Molecules, 2019, 24, 4630.	1.7	8
1037	P band intermediate state (PBIS) tailors photoluminescence emission at confined nanoscale interface. Communications Chemistry, 2019, 2, .	2.0	27
1038	Syndecans and Enzymes for Heparan Sulfate Biosynthesis and Modification Differentially Correlate With Presence of Inflammatory Infiltrate in Periodontitis. Frontiers in Physiology, 2019, 10, 1248.	1.3	7
1039	Perspective on computational simulations of glycosaminoglycans. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2019, 9, e1388.	6.2	21
1040	Effect of Polarization and Chronic Inflammation on Macrophage Expression of Heparan Sulfate Proteoglycans and Biosynthesis Enzymes. Journal of Histochemistry and Cytochemistry, 2019, 67, 9-27.	1.3	20
1041	Novel aspects of PCSK9 and lipoprotein receptors in renal disease-related dyslipidemia. Cellular Signalling, 2019, 55, 53-64.	1.7	23
1042	The Accumulation of Heparan Sulfate S-Domains in Kidney Transthyretin Deposits Accelerates Fibril Formation and Promotes Cytotoxicity. American Journal of Pathology, 2019, 189, 308-319.	1.9	5
1043	Non-Anticoagulant Low Molecular Weight Heparins for Pharmaceutical Applications. Journal of Medicinal Chemistry, 2019, 62, 1067-1073.	2.9	10

#	Article	IF	Citations
1044	Heparan sulfate proteoglycan â€“ A common receptor for diverse cytokines. Cellular Signalling, 2019, 54, 115-121.	1.7	57
1045	Novel exostosinâ€2 missense variants in a family with autosomal recessive exostosinâ€2â€related syndrome: further evidences on the phenotype. Clinical Genetics, 2019, 95, 165-171.	1.0	3
1046	Synthesis of 3-O-Sulfated Disaccharide and Tetrasaccharide Standards for Compositional Analysis of Heparan Sulfate. Biochemistry, 2020, 59, 3186-3192.	1.2	13
1047	Surface plasmon resonance imaging coupled to on-chip mass spectrometry: a new tool to probe protein-GAG interactions. Analytical and Bioanalytical Chemistry, 2020, 412, 507-519.	1.9	19
1048	Heparan sulfate inhibits transforming growth factor Î² signaling and functions in cis and in trans to regulate prostate stem/progenitor cell activities. Glycobiology, 2020, 30, 381-395.	1.3	5
1049	Global view of human protein glycosylation pathways and functions. Nature Reviews Molecular Cell Biology, 2020, 21, 729-749.	16.1	560
1050	Xylosyltransferase 2 deficiency and organ homeostasis. Glycoconjugate Journal, 2020, 37, 755-765.	1.4	7
1051	To gel or not to gel: differential expression of carrageenan-related genes between the gametophyte and tetasporophyte life cycle stages of the red alga Chondrus crispus. Scientific Reports, 2020, 10, 11498.	1.6	24
1052	HS2ST1â€dependent signaling pathways determine breast cancer cell viability, matrix interactions, and invasive behavior. Cancer Science, 2020, 111, 2907-2922.	1.7	19
1053	Cerebellar Morphology and Behavioral Profiles in Mice Lacking Heparan Sulfate Ndst Gene Function. Journal of Developmental Biology, 2020, 8, 13.	0.9	4
1054	Heparan Sulfate Structure Affects Autophagy, Lifespan, Responses to Oxidative Stress, and Cell Degeneration in Drosophila parkin Mutants. G3: Genes, Genomes, Genetics, 2020, 10, 129-141.	0.8	14
1055	Role of syndecan-1 in the interaction between dendritic cells and T cells. PLoS ONE, 2020, 15, e0230835.	1.1	6
1056	Heparan Sulfate Proteoglycan Clustering in Wnt Signaling and Dispersal. Frontiers in Cell and Developmental Biology, 2020, 8, 631.	1.8	27
1057	Extracellular Matrix: Surface Proteoglycans. , 2020, , .		1
1058	A glycomics and proteomics study of aging and Parkinsonâ€™s disease in human brain. Scientific Reports, 2020, 10, 12804.	1.6	37
1059	The Heparan Sulfate Sulfotransferases HS2ST1 and HS3ST2 Are Novel Regulators of Breast Cancer Stem-Cell Properties. Frontiers in Cell and Developmental Biology, 2020, 8, 559554.	1.8	20
1060	SARS-CoV-2 Infection Depends on Cellular Heparan Sulfate and ACE2. Cell, 2020, 183, 1043-1057.e15.	13.5	860
1061	Generation of a Heparan Sulfate Mutant Cell Library and Its Application to Determine the Structure-Function Relationship of Heparan Sulfate in Facilitating FGF2-FGFR1 Signaling. ACS Symposium Series, 2020, , 39-46.	0.5	0

#	Article	IF	Citations
1062	Heparan Sulfate Proteoglycans Biosynthesis and Post Synthesis Mechanisms Combine Few Enzymes and Few Core Proteins to Generate Extensive Structural and Functional Diversity. Molecules, 2020, 25, 4215.	1.7	44
1063	A Mutation in VWA1, Encoding von Willebrand Factor A Domain-Containing Protein 1, Is Associated With Hemifacial Microsomia. Frontiers in Cell and Developmental Biology, 2020, 8, 571004.	1.8	11
1064	Cultivation conditions affect the monosaccharide composition in Ulva fenestrata. Journal of Applied Phycology, 2020, 32, 3255-3263.	1.5	14
1065	Chemical synthesis of human syndecan-4 glycopeptide bearing O-, N-sulfation and multiple aspartic acids for probing impacts of the glycan chain and the core peptide on biological functions. Chemical Science, 2020, 11, 6393-6404.	3.7	18
1066	Structural characterization of a clinically described heparin-like substance in plasma causing bleeding. Carbohydrate Polymers, 2020, 244, 116443.	5.1	6
1067	Detection of heparin by fluorescent sensor based on naphthalimide derivatives in human serum. Dyes and Pigments, 2020, 181, 108632.	2.0	21
1068	HSPGs glypicanâ€1 and glypicanâ€4 are human neuronal proteins characteristic of different neural phenotypes. Journal of Neuroscience Research, 2020, 98, 1619-1645.	1.3	8
1069	Kidney allograft fibrosis: what we learned from latest translational research studies. Journal of Nephrology, 2020, 33, 1201-1211.	0.9	14
1070	Antiresorptive activity of osteoprotegerin requires an intact heparan sulfate-binding site. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17187-17194.	3.3	16
1071	Pingyangmycin inhibits glycosaminoglycan sulphation in both cancer cells and tumour tissues. Journal of Cellular and Molecular Medicine, 2020, 24, 3419-3430.	1.6	8
1072	Endothelial Glycocalyx Hyaluronan. American Journal of Pathology, 2020, 190, 781-790.	1.9	39
1073	Heparan sulfate loaded polycaprolactone-hydroxyapatite scaffolds with 3D printing for bone defect repair. International Journal of Biological Macromolecules, 2020, 148, 153-162.	3.6	38
1074	Operation spinal cord regeneration: Patterning information residing in extracellular matrix glycosaminoglycans. Brain and Behavior, 2020, 10, e01531.	1.0	4
1075	Heparan sulfate maintains adult midgut homeostasis in Drosophila. Cell Biology International, 2020, 44, 905-917.	1.4	1
1076	The Challenge of Modulating Heparan Sulfate Turnover by Multitarget Heparin Derivatives. Molecules, 2020, 25, 390.	1.7	8
1077	Reduced cellular binding affinity has profoundly different impacts on the spread of distinct poxviruses. PLoS ONE, 2020, 15, e0231977.	1.1	5
1079	Chondrocytes respond to an altered heparan sulfate composition with distinct changes of heparan sulfate structure and increased levels of chondroitin sulfate. Matrix Biology, 2020, 93, 43-59.	1.5	13
1080	Decellularized scaffolds for tissue engineering: Current status and future perspective. Artificial Organs, 2020, 44, 1031-1043.	1.0	52

#	Article	IF	Citations
1081	Highly Sensitive and Selective Detection of Heparin in Serum Based on a Long-Wavelength Tetraphenylethyleneâ€“Cyanopyridine Aggregation-Induced Emission Luminogen. Analytical Chemistry, 2020, 92, 7106-7113.	3.2	32
1082	Phagocyte Transcriptomic Analysis Reveals Focal Adhesion Kinase (FAK) and Heparan Sulfate Proteoglycans (HSPGs) as Major Regulators in Anti-bacterial Defense of Crassostrea hongkongensis. Frontiers in Immunology, 2020, 11, 416.	2.2	3
1083	Loss of Endothelial Glycocalyx Hyaluronan Impairs Endothelial Stability and Adaptive Vascular Remodeling after Arterial Ischemia. Cells, 2020, 9, 824.	1.8	12
1084	Cell-surface heparan sulfate proteoglycans as multifunctional integrators of signaling in cancer. Cellular Signalling, 2021, 77, 109822.	1.7	66
1085	Metabolic engineering of non-pathogenic Escherichia coli strains for the controlled production of low molecular weight heparosan and size-specific heparosan oligosaccharides. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129765.	1.1	10
1086	BMP6 binding to heparin and heparan sulfate is mediated by N-terminal and C-terminal clustered basic residues. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129799.	1.1	7
1087	ER-Golgi dynamics of HS-modifying enzymes via vesicular trafficking is a critical prerequisite for the delineation of HS biosynthesis. Carbohydrate Polymers, 2021, 255, 117477.	5.1	5
1088	LncRNA KCNQ1OT1 facilitates the progression of bladder cancer by targeting MiR-218-5p/HS3ST3B1. Cancer Gene Therapy, 2021, 28, 212-220.	2.2	29
1089	FAM20A is Dispensable for Dentinogenesis and Osteogenesis. Journal of Hard Tissue Biology, 2021, 30, 231-238.	0.2	0
1090	The 3- O -sulfation of heparan sulfate modulates protein binding and lyase degradation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	44
1091	Proteoglycans, Neurogenesis and Stem Cell Differentiation. Biology of Extracellular Matrix, 2021, , 111-152.	0.3	1
1092	Biosynthesis and Degradation of Glycans of the Extracellular Matrix: Sulfated Glycosaminoglycans, Hyaluronan, and Matriglycan. , 2021, , 29-62.		3
1093	Osteochondromas: An Updated Review of Epidemiology, Pathogenesis, Clinical Presentation, Radiological Features and Treatment Options. In Vivo, 2021, 35, 681-691.	0.6	64
1094	A novel mutation in ext2 caused hereditary multiple exostoses through reducing the synthesis of heparan sulfate. Genetics and Molecular Biology, 2021, 44, e20200334.	0.6	7
1095	Expression of the Extracellular Sulfatase SULF2 Affects Survival of Head and Neck Squamous Cell Carcinoma Patients. Frontiers in Oncology, 2020, 10, 582827.	1.3	9
1096	Regulatory Functions of Heparan Sulfate in Stem Cell Self-Renewal and Differentiation. Biology of Extracellular Matrix, 2021, , 95-110.	0.3	1
1097	Structural analysis of glycosaminoglycans from Oviductus ranae. Glycoconjugate Journal, 2021, 38, 25-33.	1.4	2
1098	Preparation and characterization of partial de-O-sulfation of heparin oligosaccharide library. Carbohydrate Research, 2021, 499, 108226.	1.1	3

#	Article	IF	Citations
1099	Glypicans and Heparan Sulfate in Synaptic Development, Neural Plasticity, and Neurological Disorders. Frontiers in Neural Circuits, 2021, 15, 595596.	1.4	33
1100	CA10 regulates neurexin heparan sulfate addition via a direct binding in the secretory pathway. EMBO Reports, 2021, 22, e51349.	2.0	7
1101	Identification of Novel Mutations in the EXT1 and EXT2 Genes of Chinese Patients with Hereditary Multiple Osteochondromas. Genetic Testing and Molecular Biomarkers, 2021, 25, 145-151.	0.3	1
1102	pH-dependent and dynamic interactions of cystatin C with heparan sulfate. Communications Biology, 2021, 4, 198.	2.0	7
1103	De novo transcriptome reveals blood coagulation/antithrombin factors and infection mechanisms in Angiostrongylus cantonensis adult worms. Parasitology, 2021, 148, 857-870.	0.7	0
1104	Heparan sulfate proteoglycan expression in the regenerating zebrafish fin. Developmental Dynamics, 2021, 250, 1368-1380.	0.8	8
1105	Lead halide perovskites with aggregation-induced emission feature coupled with gold nanoparticles for fluorescence detection of heparin. Nanotechnology, 2021, 32, 235501.	1.3	4
1106	Synthetic heparan sulfate standards and machine learning facilitate the development of solid-state nanopore analysis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	28
1107	Alterations in the Expression of the Genes Responsible for the Synthesis of Heparan Sulfate in Brains With Alzheimer Disease. Journal of Neuropathology and Experimental Neurology, 2021, 80, 446-456.	0.9	5
1108	Prospects of Microalgae for Biomaterial Production and Environmental Applications at Biorefineries. Sustainability, 2021, 13, 3063.	1.6	38
1109	Novel approach for quantification of multiple immunofluorescent signals using histograms and 2D plot profiling of whole-section panoramic images. Scientific Reports, 2021, 11, 8619.	1.6	5
1110	Genome-wide screens uncover KDM2B as a modifier of protein binding to heparan sulfate. Nature Chemical Biology, 2021, 17, 684-692.	3.9	14
1111	Association of Sonic Hedgehog with the extracellular matrix requires its zinc-coordination center. BMC Molecular and Cell Biology, 2021, 22, 22.	1.0	3
1112	Circulating Heparan Sulfate Proteoglycans as Biomarkers in Health and Disease. Seminars in Thrombosis and Hemostasis, 2021, 47, 295-307.	1.5	25
1113	Global mapping of glycosylation pathways in human-derived cells. Developmental Cell, 2021, 56, 1195-1209.e7.	3.1	46
1114	Hemostatic and Nonhemostatic Effects of Heparan Sulfate Proteoglycans. Seminars in Thrombosis and Hemostasis, 2021, 47, 238-239.	1.5	3
1115	Syndecan-1 and stromal heparan sulfate proteoglycans: key moderators of plasma cell biology and myeloma pathogenesis. Blood, 2021, 137, 1713-1718.	0.6	14
1116	Endothelial Heparan Sulfate Proteoglycans in Sepsis: The Role of the Glycocalyx. Seminars in Thrombosis and Hemostasis, 2021, 47, 274-282.	1.5	18

#	Article	IF	Citations
1117	Influence of saccharide modifications on heparin lyase III substrate specificities. Glycobiology, 2022, 32, 208-217.	1.3	3
1118	Biology of the Heparanaseâ€“Heparan Sulfate Axis and Its Role in Disease Pathogenesis. Seminars in Thrombosis and Hemostasis, 2021, 47, 240-253.	1.5	16
1119	The Sulfation Code of Tauopathies: Heparan Sulfate Proteoglycans in the Prion Like Spread of Tau Pathology. Frontiers in Molecular Biosciences, 2021, 8, 671458.	1.6	16
1120	Heparan sulfates from bat and human lung and their binding to the spike protein of SARS-CoV-2 virus. Carbohydrate Polymers, 2021, 260, 117797.	5.1	21
1121	Glycosylation in Axonal Guidance. International Journal of Molecular Sciences, 2021, 22, 5143.	1.8	15
1123	Heparan sulfate proteoglycans in beta cells provide a critical link between endoplasmic reticulum stress, oxidative stress and type 2 diabetes. PLoS ONE, 2021, 16, e0252607.	1.1	9
1124	Chondrodysplasias With Multiple Dislocations Caused by Defects in Glycosaminoglycan Synthesis. Frontiers in Genetics, 2021, 12, 642097.	1.1	6
1125	Advances in immunotherapeutic targets for childhood cancers: A focus on glypican-2 and B7-H3. , 2021, 223, 107892.		11
1126	Assays for hyaluronidases and heparanase using nonreducing end fluorophore-labeled hyaluronan and heparan sulfate proteoglycan. Glycobiology, 2021, 31, 1435-1443.	1.3	3
1127	Midkine Interaction with Chondroitin Sulfate Model Synthetic Tetrasaccharides and Their Mimetics: The Role of Aromatic Interactions. Chemistry - A European Journal, 2021, 27, 12395-12409.	1.7	7
1128	Identification of a novel EXT2 frameshift mutation in a family with hereditary multiple exostoses by wholeâ€exome sequencing. Journal of Clinical Laboratory Analysis, 2021, 35, e23968.	0.9	3
1129	Cross talk between endothelial and red blood cell glycocalyces via near-field flow. Biophysical Journal, 2021, 120, 3180-3191.	0.2	11
1130	Selective Binding of Heparin/Heparan Sulfate Oligosaccharides to Factor H and Factor H-Related Proteins: Therapeutic Potential for C3 Glomerulopathies. Frontiers in Immunology, 2021, 12, 676662.	2.2	4
1131	Structural Determinants of Substrate Recognition and Catalysis by Heparan Sulfate Sulfotransferases. ACS Catalysis, 2021, 11, 10974-10987.	5.5	10
1132	The degree of polymerization and sulfation patterns in heparan sulfate are critical determinants of cytomegalovirus entry into host cells. PLoS Pathogens, 2021, 17, e1009803.	2.1	17
1133	What is the Sugar Code?. ChemBioChem, 2022, 23, .	1.3	20
1134	Novel Insight Into Glycosaminoglycan Biosynthesis Based on Gene Expression Profiles. Frontiers in Cell and Developmental Biology, 2021, 9, 709018.	1.8	15
1135	Binding ability of methylene blue with heparin dependent on its sulfate level rather than its sulfation location or basic saccharide structure. Glycoconjugate Journal, 2021, 38, 551-560.	1.4	3

#	Article	IF	Citations
1136	Mass Spectrometry-Based Techniques to Elucidate the Sugar Code. Chemical Reviews, 2022, 122, 7840-7908.	23.0	67
1137	Decoding the consecutive lysosomal degradation of 3-O-sulfate containing heparan sulfate by Arylsulfatase G (ARSG). Biochemical Journal, 2021, 478, 3221-3237.	1.7	2
1138	Glycosaminoglycans: Sweet as Sugar Targets for Topical Skin Anti-Aging. Clinical, Cosmetic and Investigational Dermatology, 2021, Volume 14, 1227-1246.	0.8	21
1139	Biological role of heparan sulfate in osteogenesis: A review. Carbohydrate Polymers, 2021, 272, 118490.	5.1	8
1140	Genetic aspects of primary bone tumors. , 2022, , 531-542.		0
1141	The CXCL12gamma chemokine immobilized by heparan sulfate on stromal niche cells controls adhesion and mediates drug resistance in multiple myeloma. Journal of Hematology and Oncology, 2021, 14, 11.	6.9	15
1142	Increased Expression of Heparan Sulfate 6-O-Sulfotransferase-2 Promotes Collagen Production in Cardiac Myofibroblasts. BPB Reports, 2021, 4, 85-91.	0.1	0
1143	Heparan Sulfate Glycosaminoglycans: (Un)Expected Allies in Cancer Clinical Management. Biomolecules, 2021, 11, 136.	1.8	20
1144	Are Bioactive Molecules from Seaweeds a Novel and Challenging Option for the Prevention of HPV Infection and Cervical Cancer Therapy?â€"A Review. International Journal of Molecular Sciences, 2021, 22, 629.	1.8	22
1145	Multivalent glycans for biological and biomedical applications. Chemical Society Reviews, 2021, 50, 10567-10593.	18.7	30
1146	Glycosaminoglycan and Proteoglycanâ€Based Biomaterials: Current Trends and Future Perspectives. Advanced Healthcare Materials, 2018, 7, e1701042.	3.9	53
1147	VEGF Signal Tranduction in Angiogenesis. , 2008, , 205-216.		2
1148	Chondroitin Sulfate-Specific Novel Hydrolase in Human. Advances in Experimental Medicine and Biology, 2012, 749, 47-56.	0.8	6
1149	A Rapid, Nonradioactive Assay for Measuring Heparan Sulfate C-5 Epimerase Activity Using Hydrogen/Deuterium Exchange-Mass Spectrometry. Methods in Molecular Biology, 2015, 1229, 209-219.	0.4	2
1150	A Transgenic Approach to Live Imaging of Heparan Sulfate Modification Patterns. Methods in Molecular Biology, 2015, 1229, 253-268.	0.4	4
1151	Designing â€œHigh-Affinity, High-Specificityâ€•Glycosaminoglycan Sequences Through Computerized Modeling. Methods in Molecular Biology, 2015, 1229, 289-314.	0.4	16
1152	Histochemical Analysis of Heparan Sulfate 3-O-Sulfotransferase Expression in Mouse Brain. Methods in Molecular Biology, 2015, 1229, 377-387.	0.4	3
1153	Synthesis and Biomedical Applications of Xylosides. Methods in Molecular Biology, 2015, 1229, 517-528.	0.4	3

#	Article	IF	Citations
1154	Role of Glycosaminoglycans in Infectious Disease. Methods in Molecular Biology, 2015, 1229, 567-585.	0.4	44
1155	Synthesis of O-Glycopeptides and Construction of Glycopeptide Microarrays. Methods in Molecular Biology, 2013, 1047, 201-214.	0.4	9
1156	Heparanase and Type 1 Diabetes. Advances in Experimental Medicine and Biology, 2020, 1221, 607-630.	0.8	12
1157	Heparan Sulfate in the Tumor Microenvironment. Advances in Experimental Medicine and Biology, 2020, 1245, 147-161.	0.8	26
1158	Role of Hyaluronidases in the Catabolism of Chondroitin Sulfate. Advances in Experimental Medicine and Biology, 2015, 842, 185-197.	0.8	8
1159	Heparan Sulfate Proteoglycan in Inflammation and Angiogenesis. , 2011, , 1-29.		3
1160	N-Deacetylase/N-Sulfotransferase (Heparan Glucosaminyl) 3,4 (NDST3,4). , 2014, , 1113-1122.		1
1161	Genetic and Structural Analysis of the Glycoprotein and Glycolipid Glycans of Drosophila melanogaster. , 2010, , 329-345.		2
1162	MODIFYING THE EXTRACELLULAR MATRIX AS A TREATMENT TO IMPROVE FUNCTIONAL RECOVERY AFTER SPINAL CORD INJURY. , 2008, , 337-353.		2
1163	Anatomy of the Lungs. , 2010, , 3-25.		4
1164	Towards Synthesis of Heparan Sulfate Glycopeptides and Proteoglycans. Chemical Biology, 2017, , 209-232.	0.1	1
1165	Discovery and Clinical Development of Idursulfase (ElapraseÂ®) for the Treatment of Mucopolysaccharidosis II (Hunter Syndrome). RSC Drug Discovery Series, 2014, , 164-182.	0.2	6
1166	Chapter 11. Strategies for Building Proteinâ€“Glycosaminoglycan Interaction Networks Combining SPRi, SPR, and BLI. , 0, , 398-414.		5
1167	Heparan sulfate as a receptor for poxvirus infections and as a target for antiviral agents. Journal of General Virology, 2017, 98, 2556-2568.	1.3	20
1174	Chlamydial Adhesion and Adhesins. , 0, , 97-125.		12
1175	Atherogenic remnant lipoproteins: role for proteoglycans in trapping, transferring, and internalizing. Journal of Clinical Investigation, 2007, 117, 1-5.	3.9	130
1176	Heparan sulfate and syndecan-1 are essential in maintaining murine and human intestinal epithelial barrier function. Journal of Clinical Investigation, 2008, 118, 229-238.	3.9	131
1177	Heparan sulfate and heparanase play key roles in mouse Î² cell survival and autoimmune diabetes. Journal of Clinical Investigation, 2012, 122, 132-141.	3.9	138

#	Article	IF	Citations
1178	Extracellular Matrix. , 2007, , 3-1-3-22.		3
1179	A Computational Approach for Deciphering the Organization of Glycosaminoglycans. PLoS ONE, 2010, 5, e9389.	1.1	20
1180	3-O-Sulfated Heparan Sulfate Recognized by the Antibody HS4C3 Contribute to the Differentiation of Mouse Embryonic Stem Cells via Fas Signaling. PLoS ONE, 2012, 7, e43440.	1.1	43
1181	The Ndst Gene Family in Zebrafish: Role of Ndst1b in Pharyngeal Arch Formation. PLoS ONE, 2015, 10, e0119040.	1.1	16
1182	Alteration of colonic epithelial cell differentiation in mice deficient for glucosaminyl N-deacetylase/N-sulfotransferase 4. Oncotarget, 2016, 7, 84938-84950.	0.8	17
1183	Impaired lymphatic function accelerates cancer growth. Oncotarget, 2016, 7, 45789-45802.	0.8	20
1184	SÃ©zary Syndrome, recent biomarkers and new drugs. Chinese Clinical Oncology, 2019, 8, 2-2.	0.4	13
1185	TGF-Î²: Titan of Lung Fibrogenesis. Current Enzyme Inhibition, 2010, 6, .	0.3	65
1186	Role of Filopodia in HSV-1 Entry into Zebrafish 3-O-Sulfotransferase-3-Expressing Cells. The Open Virology Journal, 2013, 7, 41-48.	1.8	12
1187	Role of Heparanase in the Release of Heparan Sulphate Binding Growth Factors in Odontogenic Tumors. Journal of Hard Tissue Biology, 2007, 16, 23-30.	0.2	6
1188	The heparanome and regulation of cell function: structures, functions and challenges. Frontiers in Bioscience - Landmark, 2008, Volume, 4309.	3.0	143
1189	Immunodetection of Heparan Sulphate and Heparanase Molecules in Benign and Malignant Odontogenic Tumors. Oral Medicine & Pathology, 2006, 11, 49-54.	0.3	3
1190	C-type Lectin CD209L/L-SIGN and CD209/DC-SIGN: Cell Adhesion Molecules Turned to Pathogen Recognition Receptors. Biology, 2021, 10, 1.	1.3	81
1191	Syndecan-1 in Microbial Pathogenesis, Host Defense, and Inflammation. Trends in Glycoscience and Glycotechnology, 2005, 17, 271-284.	0.0	1
1192	The Importance of Specific Sulfate Modifications in Heparan Sulfate Functions. Trends in Glycoscience and Glycotechnology, 2006, 18, 185-195.	0.0	4
1193	Defects in Biosynthesis of Glycosaminoglycans Cause Hereditary Bone, Skin, Heart, Immune, and Neurological Disorders. Trends in Glycoscience and Glycotechnology, 2018, 30, E67-E89.	0.0	4
1194	Glycosaminoglycans in Human and Bovine Serum: Detection of Twenty-Four Heparan Sulfate and Chondroitin Sulfate Motifs Including a Novel Sialic Acid-Modified Chondroitin Sulfate Linkage Hexasaccharide. Glycobiology Insights, 0, 2, 13-28.	4.5	20
1195	Histograms and 2D plot profiling for quantification of numerous immunofluorescent signals on entire panoramic photomicrographs: a new method description. , 2021, , .		0

#	Article	IF	Citations
1196	Histochemical Analysis of Heparan 3-O-sulfotransferase Expression in Mouse. Methods in Molecular Biology, 2022, 2303, 719-730.	0.4	0
1197	Role of HSPGs in Systemic Bacterial Infections. Methods in Molecular Biology, 2022, 2303, 605-625.	0.4	2
1198	Application of a Mutant Cell Library to Determine the Structureâ€“Function Relationship of Heparan in Facilitating FGF2-FGFR1 Signaling. Methods in Molecular Biology, 2022, 2303, 637-644.	0.4	0
1199	Computerized for Discovering Promising Glycosaminoglycan that Modulate Protein Function. Methods in Molecular Biology, 2022, 2303, 513-537.	0.4	1
1200	Detection of Glycosaminoglycans in and. Methods in Molecular Biology, 2022, 2303, 695-717.	0.4	0
1201	Role of neurexin heparan sulfate in the molecular assembly of synapses â€“ expanding the neurexin code?. FEBS Journal, 2023, 290, 252-265.	2.2	12
1202	Carbohydrate Recognition and Signaling. , 2003, , 87-93.		0
1203	Proteoglycans. , 2004, , 549-555.		0
1204	Dynamic Remodeling of Syndecan-1 Structure Regulates. Trends in Glycoscience and Glycotechnology, 2005, 17, 263-270.	0.0	0
1205	EXTRACELLULAR MATRIX | Surface Proteoglycans. , 2006, , 188-192.		0
1208	Proteoglycans and Cancer. , 2010, , 191-215.		2
1209	Glycosaminoglycans in Atherosclerosis and Thrombosis. , 2011, , 83-111.		0
1210	Kohlenhydrate und Glycobiologie. Springer-Lehrbuch, 2011, , 311-360.	0.1	0
1211	Virus-Induced Encephalitis and Innate Immune Responses â€“ A Focus on Emerging or Re-Emerging Viruses. , 0, , .		0
1214	Proteoglycomics and Disease Marker: Promises and Future Challenges. Advanced Techniques in Biology & Medicine, 2013, 1, .	0.1	0
1215	Carbohydrates | Proteoglycans. , 2013, , 646-653.		0
1216	Proteoglycans. , 2013, , 654-660.		1
1217	The multiple alterations of Heparan sulphate in cancer. OA Cancer, 2013, 1, .	0.3	1

#	Article	IF	Citations
1218	N-Deacetylase/N-Sulfotransferase (Heparan Glucosaminyl) 2 (NDST2). , 2014, , 1105-1112.		0
1219	Function of Heparan Sulfate in Pluripotent Stem Cells. Trends in Glycoscience and Glycotechnology, 2014, 26, 149-157.	0.0	0
1220	Review of osteochondroma: involved in temporomandibular joint. Journal of Dental Rehabilitation and Applied Science, 2014, 30, 28-35.	0.1	0
1221	Biological Meaning of the Histo-Blood Group Antigens Composed of Sugar Chains. The Korean Journal of Blood Transfusion, 2015, 26, 103-122.	0.1	2
1222	Extracellular Matrix: Structure, Function, and Tissue Engineering Applications. , 0, , 3377-3392.		0
1224	Heparansulfat-Proteoglykane. , 2018, , 1-2.		0
1225	Heparan Sulfate Maintains Tissue Homeostasis in Drosophila Adult Midgut. SSRN Electronic Journal, 0, , .	0.4	0
1226	Heparan Sulfate Maintains Tissue Homeostasis in Drosophila Adult Midgut. SSRN Electronic Journal, 0, , .	0.4	0
1227	Defects in Biosynthesis of Glycosaminoglycans Cause Hereditary Bone, Skin, Heart, Immune, and Neurological Disorders. Trends in Glycoscience and Glycotechnology, 2018, 30, J43-J64.	0.0	0
1229	The Glomerular Endothelium in Diabetic Nephropathy: Role of Heparanase. , 2019, , 153-170.		3
1230	CHAPTER 9. Chemoenzymatic Synthesis of Heparan Sulfate and Heparin. Chemical Biology, 2019, , 207-225.	0.1	0
1231	Heparansulfat-Proteoglykane. Springer Reference Medizin, 2019, , 1086-1087.	0.0	0
1233	Expression Pattern of Sulf1 and Sulf2 in Chicken Tissues and Characterization of Their Expression During Different Periods in Skeletal Muscle Satellite Cells. Brazilian Journal of Poultry Science, 2020, 22, .	0.3	0
1234	Carbohydrate-Derived Tailorable Interfaces: Recent Advances and Applications. , 2020, , 313-346.		0
1236	An Atlas of Heparan Sulfate Proteoglycans in the Postnatal Rat Lens. , 2021, 62, 5.		4
1237	Defective Glycosylation and Muscular Dystrophies. , 0, , 515-526.		0
1238	Golgi glycosylation enzymes. , 2008, , 161-189.		1
1240	Heparan Sulfate Clusters Regulate Distribution and Signaling of Wnt Morphogens. Trends in Glycoscience and Glycotechnology, 2020, 32, E205-E211.	0.0	2

#	Article	IF	Citations
1241	Heparan Sulfate Clusters Regulate Distribution and Signaling of Wnt Morphogens. Trends in Glycoscience and Glycotechnology, 2020, 32, J181-J187.	0.0	0
1244	Glycosaminoglycans in Human and Bovine Serum: Detection of Twenty-Four Heparan Sulfate and Chondroitin Sulfate Motifs Including a Novel Sialic Acid-modified Chondroitin Sulfate Linkage Hexasaccharide. Glycobiology Insights, 2010, 2010, 13-28.	4.5	35
1245	The assessment of early glycosaminoglycan concentration changes in the kidney of diabetic rats by critical electrolyte concentration staining. International Journal of Molecular and Cellular Medicine, 2013, 2, 58-63.	1.1	4
1248	An Overview of in vivo Functions of Chondroitin Sulfate and Dermatan Sulfate Revealed by Their Deficient Mice. Frontiers in Cell and Developmental Biology, 2021, 9, 764781.	1.8	17
1249	Heparan Sulfate Biosynthesis and Sulfation Profiles as Modulators of Cancer Signalling and Progression. Frontiers in Oncology, 2021, 11, 778752.	1.3	44
1250	Osteochondroma formation is independent of heparanase expression as revealed in a mouse model of hereditary multiple exostoses. Journal of Orthopaedic Research, 2022, 40, 2391-2401.	1.2	3
1251	Heparan sulfate is necessary for the early formation of nascent fibronectin and collagen I fibrils at matrix assembly sites. Journal of Biological Chemistry, 2022, 298, 101479.	1.6	9
1252	Mutations in the heparan sulfate backbone elongating enzymes EXT1 and EXT2 have no major effect on endothelial glycocalyx and the glomerular filtration barrier. Molecular Genetics and Genomics, 2022, 297, 397-405.	1.0	2
1253	Installation of O-glycan sulfation capacities in human HEK293ÂcellsÂ for display of sulfated mucins. Journal of Biological Chemistry, 2022, 298, 101382.	1.6	6
1254	Diffusion magnetic resonance tractography-based evaluation of commissural fiber abnormalities in a heparan sulfate endosulfatase-deficient mouse brain. Magnetic Resonance Imaging, 2022, 88, 123-123.	1.0	0
1255	Circadian control of heparan sulfate levels times phagocytosis of amyloid beta aggregates. PLoS Genetics, 2022, 18, e1009994.	1.5	22
1256	A dominant negative splice variant of the heparan sulfate biosynthesis enzyme NDST1 reduces heparan sulfate sulfation. Glycobiology, 2022, , .	1.3	4
1257	[Note] Mass Production of Purified Chondroitin Sulfate Oligosaccharides with Single Molecular Weight. Bulletin of Applied Glycoscience, 2021, 11, 94-99.	0.0	1
1258	Chemobiocatalytic Synthesis of a Low-Molecular-Weight Heparin. ACS Chemical Biology, 2022, 17, 637-646.	1.6	8
1259	Bacteria associated with acne use glycosaminoglycans as cell adhesion receptors and promote changes in the expression of the genes involved in their biosynthesis. BMC Microbiology, 2022, 22, 65.	1.3	1
1260	Coreceptor functions of cell surface heparan sulfate proteoglycans. American Journal of Physiology - Cell Physiology, 2022, 322, C896-C912.	2.1	20
1261	Spatiotemporal diversity and regulation of glycosaminoglycans in cell homeostasis and human disease. American Journal of Physiology - Cell Physiology, 2022, 322, C849-C864.	2.1	16
1262	Blocking of inflammatory heparan sulfate domains by specific antibodies is not protective in experimental glomerulonephritis. PLoS ONE, 2021, 16, e0261722.	1.1	3

#	Article	IF	Citations
1263	Affinity and Specificity for Binding to Glycosaminoglycans Can Be Tuned by Adapting Peptide Length and Sequence. International Journal of Molecular Sciences, 2022, 23, 447.	1.8	7
1264	Chemoenzymatic Synthesis of Homogeneous Heparan Sulfate and Chondroitin Sulfate Chimeras. ACS Chemical Biology, 2022, 17, 1207-1214.	1.6	5
1280	The Endothelial Glycocalyx: A Possible Therapeutic Target in Cardiovascular Disorders. Frontiers in Cardiovascular Medicine, 2022, 9, .	1.1	21
1281	Design and Synthesis of 6â€Oâ€Phosphorylated Heparan Sulfate Oligosaccharides to Inhibit Amyloid Î² Aggregation. ChemBioChem, 2022, 23, .	1.3	3
1282	Effect of Sulfation on the Conformational Dynamics of Dermatan Sulfate Glycosaminoglycan: A Gaussian Accelerated Molecular Dynamics Study. Journal of Physical Chemistry B, 2022, 126, 3852-3866.	1.2	7
1283	Regulation of biomineralization by proteoglycans: From mechanisms to application. Carbohydrate Polymers, 2022, 294, 119773.	5.1	11
1284	A Brief Atlas of Insulin. Current Diabetes Reviews, 2022, 19, .	0.6	2
1285	Proteoglycans. , 2022, , .		0
1287	Excavating proteoglycan structure-function relationships: modern approaches to capture the interactions of ancient biomolecules. American Journal of Physiology - Cell Physiology, 2022, 323, C415-C422.	2.1	2
1288	GANAB and N-Glycans Substrates Are Relevant in Human Physiology, Polycystic Pathology and Multiple Sclerosis: A Review. International Journal of Molecular Sciences, 2022, 23, 7373.	1.8	4
1289	Using NMR to Dissect the Chemical Space and O-Sulfation Effects within the O- and S-Glycoside Analogues of Heparan Sulfate. ACS Omega, 2022, 7, 24461-24467.	1.6	6
1290	Sulfotyrosine residues: Interaction specificity determinants for extracellular proteinâ€“protein interactions. Journal of Biological Chemistry, 2022, 298, 102232.	1.6	7
1291	Enzymatic synthesis of low molecular weight heparins from N-sulfo heparosan depolymerized by heparanase or heparin lyase. Carbohydrate Polymers, 2022, 295, 119825.	5.1	5
1292	In Vitro Toxicity Evaluation of Carrageenan on Cells and Tissues of the Oral Cavity. Marine Drugs, 2022, 20, 502.	2.2	1
1293	CircNDST1 Regulates Bovine Myoblasts Proliferation and Differentiation via the miR-411a/Smad4 Axis. Journal of Agricultural and Food Chemistry, 2022, 70, 10044-10057.	2.4	3
1295	Heparan sulfate proteoglycans in cancer: Pathogenesis and therapeutic potential. Advances in Cancer Research, 2023, , 251-291.	1.9	2
1296	A glycan-based approach to cell characterization and isolation: Hematopoiesis as a paradigm. Journal of Experimental Medicine, 2022, 219, .	4.2	1
1297	Phenotypic spectrum of FGF10-related disorders: a systematic review. PeerJ, 0, 10, e14003.	0.9	6

#	Article	IF	Citations
1298	Heparan sulfate proteoglycans (HSPGs) of the ocular lens. Progress in Retinal and Eye Research, 2023, 93, 101118.	7.3	5
1299	Genome Wide Association Study with Imputed Whole Genome Sequence Data Identifies a 431 kb Risk Haplotype on CFA18 for Congenital Laryngeal Paralysis in Alaskan Sled Dogs. Genes, 2022, 13, 1808.	1.0	2
1300	Heparan Sulfate Glycosaminoglycan Is Predicted to Stabilize Inflammatory Infiltrate Formation and RANKL/OPG Ratio in Severe Periodontitis in Humans. Bioengineering, 2022, 9, 566.	1.6	2
1301	Diversity of sialic acids and sialoglycoproteins in gametes and at fertilization. Frontiers in Cell and Developmental Biology, 0, 10, .	1.8	4
1302	Molecular determinants of the interaction between HSV-1 glycoprotein D and heparan sulfate. Frontiers in Molecular Biosciences, 0, 9, .	1.6	6
1303	Neuronal expression of ndst3 in early zebrafish development is responsive to Wnt signaling manipulation. Gene Expression Patterns, 2023, 47, 119300.	0.3	0
1304	The Alterations and Roles of Glycosaminoglycans in Human Diseases. Polymers, 2022, 14, 5014.	2.0	16
1305	Regulation of autophagy, lipid metabolism, and neurodegenerative pathology by heparan sulfate proteoglycans. Frontiers in Genetics, 0, 13, .	1.1	2
1306	HS, an Ancient Molecular Recognition and Information Storage Glycosaminoglycan, Equips HS-Proteoglycans with Diverse Matrix and Cell-Interactive Properties Operative in Tissue Development and Tissue Function in Health and Disease. International Journal of Molecular Sciences, 2023, 24, 1148.	1.8	7
1307	Engineered Protein Copolymers for Heparin Neutralization and Detection. Biomacromolecules, 2023, 24, 1014-1021.	2.6	2
1308	Structural basis for heparan sulfate co-polymerase action by the EXT1â€“2 complex. Nature Chemical Biology, 2023, 19, 565-574.	3.9	13
1309	Archaic connectivity between the sulfated heparan sulfate and the herpesviruses â€“ An evolutionary potential for cross-species interactions. Computational and Structural Biotechnology Journal, 2023, 21, 1030-1040.	1.9	2
1310	New Insights on Coding Mutations and mRNA Levels of Candidate Genes Associated with Diarrhea Susceptibility in Baladi Goat. Agriculture (Switzerland), 2023, 13, 143.	1.4	0
1312	Regulation of morphogen pathways by a Drosophila chondroitin sulfate proteoglycan Windpipe. Journal of Cell Science, 2023, 136, .	1.2	1
1313	Effects of different dehydration methods on the preservation of aortic and renal glycocalyx structures in mice. Heliyon, 2023, 9, e15197.	1.4	2
1314	A 6-O-endosulfatase activity assay based on synthetic heparan sulfate oligomers. Glycobiology, 2023, 33, 384-395.	1.3	5
1316	Characterization and antioxidant activities of glycosaminoglycans from dried leech. Glycoconjugate Journal, 2023, 40, 169-178.	1.4	0
1317	Conditional ablation of heparan sulfate expression in stromal fibroblasts promotes tumor growth in vivo. PLoS ONE, 2023, 18, e0281820.	1.1	0

#	Article	IF	Citations
1318	The logistics of Wnt production and delivery. Current Topics in Developmental Biology, 2023, , 1-60.	1.0	3
1319	Absolute pharmacokinetics of heparin in primates. Carbohydrate Polymers, 2023, 311, 120779.	5.1	2
1320	Heparan sulfate proteoglycan in Alzheimerâ€™s disease: aberrant expression and functions in molecular pathways related to amyloid-Î² metabolism. American Journal of Physiology - Cell Physiology, 2023, 324, C893-C909.	2.1	5
1321	Molecular Mechanisms of Antiviral Agents against Dengue Virus. Viruses, 2023, 15, 705.	1.5	11
1322	Intracellular Membrane Transport in Vascular Endothelial Cells. International Journal of Molecular Sciences, 2023, 24, 5791.	1.8	7
1323	Glycosyltransferase family 47 (GT47) proteins in plants and animals. Essays in Biochemistry, 2023, 67, 639-652.	2.1	1
1324	Apolipoproteinâ€...E Recognizes Alzheimer's Disease Associated 3â€‹O Sulfation of Heparan Sulfate. Angewandte Chemie - International Edition, 2023, 62, .	7.2	1
1325	Apolipoprotein E Recognizes Alzheimerâ€™s Disease Associated 3â€O Sulfation of Heparan Sulfate. Angewandte Chemie, 0, , .	1.6	0
1326	Dynamic Changes in Heparan Sulfate Nanostructure in Human Pluripotent Stem Cell Differentiation. ACS Nano, 2023, 17, 7207-7218.	7.3	1
1327	Aggrecan and Hyaluronan: The Infamous Cartilage Polyelectrolytes â€“ Then and Now. Advances in Experimental Medicine and Biology, 2023, , 3-29.	0.8	3
1351	Stem Cell Differentiation Mediated by Biomaterials/Surfaces. , 2023, , 307-375.		0
1352	Biosynthesis and Function of Glycoconjugates. Recent Advances in Biotechnology, 2023, , 166-222.	0.1	0
1362	The Role of Non-collagenous Proteins and Other Matrix Molecules in Vertebrate Mineralization. , 2023, , 343-401.		0