Sebastian Springer

List of Publications by Year
in descending order

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79 papers	2,879 citations	185998 28 h-index	197535 49 g-index
122 all docs	122 docs citations	122 times ranked	3259 citing authors

#	Article	IF	Citations
1	A Primer on Vesicle Budding. Cell, 1999, 97, 145-148.	13.5	266
2	Multifunctionalized Polymer Microcapsules: Novel Tools for Biological and Pharmacological Applications. Small, 2007, 3, 944-955.	5.2	223
3	Nucleation of COPII Vesicular Coat Complex by Endoplasmic Reticulum to Golgi Vesicle SNAREs. , 1998, 281, 698-700.		184
4	Structure of the Sec23p/24p and Sec13p/31p complexes of COPII. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 10704-10709.	3.3	122
5	Crystal Structures of Two H-2Db/Glycopeptide Complexes Suggest a Molecular Basis for CTL Cross-Reactivity. Immunity, 1999, 10, 63-74.	6.6	121
6	Conformational Flexibility of the MHC Class I Î±1-Î±2 Domain in Peptide Bound and Free States: A Molecular Dynamics Simulation Study. Biophysical Journal, 2004, 87, 2203-2214.	0.2	116
7	Controlled Intracellular Release of Peptides from Microcapsules Enhances Antigen Presentation on MHC Class I Molecules. Small, 2009, 5, 2168-2176.	5.2	111
8	The p24 proteins are not essential for vesicular transport in Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 4034-4039.	3.3	109
9	Calreticulin-dependent recycling in the early secretory pathway mediates optimal peptide loading of MHC class I molecules. EMBO Journal, 2009, 28, 3730-3744.	3.5	78
10	Tapasin and other chaperones: models of the MHC class I loading complex. Biological Chemistry, 2004, 385, 763-78.	1.2	68
11	Fast Association Rates Suggest a Conformational Change in the MHC Class I Molecule H-2Dbupon Peptide Binding. Biochemistry, 1998, 37, 3001-3012.	1.2	67
12	Empty peptide-receptive MHC class I molecules for efficient detection of antigen-specific T cells. Science Immunology, 2019, 4, .	5.6	64
13	Tapasin dependence of major histocompatibility complex class I molecules correlates with their conformational flexibility. FASEB Journal, 2011, 25, 3989-3998.	0.2	61
14	Differential tapasin dependence of MHC class I molecules correlates with conformational changes upon peptide dissociation: A molecular dynamics simulation study. Molecular Immunology, 2008, 45, 3714-3722.	1.0	58
15	Peptide-independent stabilization of MHC class I molecules breaches cellular quality control*. Journal of Cell Science, 2014, 127, 2885-97.	1.2	57
16	Comparative molecular dynamics analysis of tapasin-dependent and -independent MHC class I alleles. Protein Science, 2006, 16, 299-308.	3.1	56
17	Dipeptides promote folding and peptide binding of MHC class I molecules. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15383-15388.	3.3	55
18	Flexibility of the MHC class II peptide binding cleft in the bound, partially filled, and empty states: A molecular dynamics simulation study. Biopolymers, 2009, 91, 14-27.	1.2	54

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19	Tapasin edits peptides on MHC class I molecules by accelerating peptide exchange. European Journal of Immunology, 2010, 40, 214-224.	1.6	52
20	F pocket flexibility influences the tapasin dependence of two differentially diseaseâ€associated MHC Class I proteins. European Journal of Immunology, 2015, 45, 1248-1257.	1.6	48
21	Peptide-receptive Major Histocompatibility Complex Class I Molecules Cycle between Endoplasmic Reticulum and cis-Golgi in Wild-type Lymphocytes. Journal of Biological Chemistry, 2007, 282, 30680-30690.	1.6	47
22	Dipeptides catalyze rapid peptide exchange on MHC class I molecules. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 202-207.	3.3	45
23	Mechanistic Basis for Epitope Proofreading in the Peptide-Loading Complex. Journal of Immunology, 2015, 195, 4503-4513.	0.4	43
24	Peptide binding to MHC class I and II proteins: New avenues from new methods. Molecular Immunology, 2010, 47, 649-657.	1.0	42
25	Structures of peptide-free and partially loaded MHC class I molecules reveal mechanisms of peptide selection. Nature Communications, 2020, 11, 1314.	5.8	40
26	Successive crystal structure snapshots suggest the basis for MHC class I peptide loading and editing by tapasin. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5055-5060.	3.3	39
27	A Novel Family of Human Leukocyte Antigen Class II Receptors May Have Its Origin in Archaic Human Species. Journal of Biological Chemistry, 2014, 289, 639-653.	1.6	37
28	The Carboxy Terminus of the Ligand Peptide Determines the Stability of the MHC Class I Molecule H-2Kb: A Combined Molecular Dynamics and Experimental Study. PLoS ONE, 2015, 10, e0135421.	1.1	35
29	High-throughput peptide-MHC complex generation and kinetic screenings of TCRs with peptide-receptive HLA-A*02:01 molecules. Science Immunology, 2019, 4, .	5.6	35
30	Not all empty MHC class I molecules are molten globules: Tryptophan fluorescence reveals a two-step mechanism of thermal denaturation. Molecular Immunology, 2013, 54, 386-396.	1.0	33
31	Protein A Functionalized Polyelectrolyte Microcapsules as a Universal Platform for Enhanced Targeting of Cell Surface Receptors. ACS Applied Materials & Interfaces, 2017, 9, 11506-11517.	4.0	32
32	Transport and quality control of MHC class I molecules in the early secretory pathway. Current Opinion in Immunology, 2015, 34, 83-90.	2.4	29
33	TAP-Dependent and -Independent Peptide Import into Dendritic Cell Phagosomes. Journal of Immunology, 2016, 197, 3454-3463.	0.4	29
34	The transporter associated with antigen processing (TAP) is active in a post-ER compartment. Journal of Cell Science, 2010, 123, 4271-4279.	1.2	28
35	Dissociation of Î²₂â€microglobulin determines the surface quality control of major histocompatibility complex class I molecules. FASEB Journal, 2015, 29, 2780-2788.	0.2	28
36	FoldAffinity: binding affinities from nDSF experiments. Scientific Reports, 2021, 11, 9572.	1.6	28

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37	Proline substitution independently enhances <scp>H</scp>â€2<scp>D</scp>^b complex stabilization and <scp>TCR</scp> recognition of melanomaâ€associated peptides. European Journal of Immunology, 2013, 43, 3051-3060.	1.6	22
38	The mechanism of action of tapasin in the peptide exchange on MHC class I molecules determined from kinetics simulation studies. Molecular Immunology, 2009, 46, 2054-2063.	1.0	20
39	â€œTo Catch or Not to Catchâ€• Microcapsuleâ€Based Sandwich Assay for Detection of Proteins and Nucleic Acids. Advanced Functional Materials, 2016, 26, 6015-6024.	7.8	20
40	Regulated Oligomerization Induces Uptake of a Membrane Protein into <scp>COPII</scp> Vesicles Independent of Its Cytosolic Tail. Traffic, 2014, 15, 531-545.	1.3	19
41	Stoichiometry of HLA Class II-Invariant Chain Oligomers. PLoS ONE, 2011, 6, e17257.	1.1	18
42	Coupling between side chain interactions and binding pocket flexibility in HLA-B*44:02 molecules investigated by molecular dynamics simulations. Molecular Immunology, 2015, 63, 312-319.	1.0	18
43	Specific Capture of Peptideâ€Receptive Major Histocompatibility Complex Class I Molecules by Antibody Micropatterns Allows for a Novel Peptideâ€Binding Assay in Live Cells. Small, 2017, 13, 1602974.	5.2	16
44	MHC Class I Stability is Modulated by Cell Surface Sialylation in Human Dendritic Cells. Pharmaceutics, 2020, 12, 249.	2.0	16
45	Investigating MHC class I folding and trafficking with pulse-chase experiments. Molecular Immunology, 2013, 55, 126-130.	1.0	15
46	Cytomegalovirus gp40/m152 Uses TMED10 as ER Anchor to Retain MHC Class I. Cell Reports, 2018, 23, 3068-3077.	2.9	14
47	Significance of nuclear cathepsin V in normal thyroid epithelial and carcinoma cells. Biochimica Et Biophysica Acta - Molecular Cell Research, 2020, 1867, 118846.	1.9	13
48	A two-hybrid antibody micropattern assay reveals specific in cis interactions of MHC I heavy chains at the cell surface. ELife, 2018, 7, .	2.8	12
49	Protein micropatterns printed on glass: Novel tools for proteinâ€ligand binding assays in live cells. Engineering in Life Sciences, 2018, 18, 124-131.	2.0	11
50	Peptide-MHC I complex stability measured by nanoscale differential scanning fluorimetry reveals molecular mechanism of thermal denaturation. Molecular Immunology, 2021, 136, 73-81.	1.0	11
51	Retrieval of a Metabolite from Cells with Polyelectrolyte Microcapsules. Small, 2010, 6, 2412-2419.	5.2	10
52	Distinct mechanisms survey the structural integrity of HLA-B*27:05 intracellularly and at the surface. PLoS ONE, 2018, 13, e0200811.	1.1	10
53	Endoplasmic Reticulum Targeting Alters Regulation of Expression and Antigen Presentation of Proinsulin. Journal of Immunology, 2014, 192, 4957-4966.	0.4	9
54	The murine cytomegalovirus immunoevasin gp40 binds MHC class I molecules to retain them in the early secretory pathway. Journal of Cell Science, 2016, 129, 219-27.	1.2	9

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55	A natural tapasin isoform lacking exon 3 modifies peptide loading complex function. European Journal of Immunology, 2013, 43, 1459-1469.	1.6	8
56	Pulseâ€Chase Analysis for Studying Protein Synthesis and Maturation. Current Protocols in Protein Science, 2014, 78, 30.3.1-30.3.23.	2.8	8
57	Primary and secondary functions of HLA-E are determined by stability and conformation of the peptide-bound complexes. Cell Reports, 2022, 39, 110959.	2.9	8
58	Venus flytrap or pas de trois? The dynamics of MHC class I molecules. Current Opinion in Immunology, 2021, 70, 82-89.	2.4	7
59	The P5-type ATPase ATP13A1 modulates major histocompatibility complex I-related protein 1 (MR1)-mediated antigen presentation. Journal of Biological Chemistry, 2022, 298, 101542.	1.6	7
60	Opening opportunities for Kd determination and screening of MHC peptide complexes. Communications Biology, 2022, 5, .	2.0	7
61	Dissociation of Î²2m from MHC class I triggers formation of noncovalent transient heavy chain dimers. Journal of Cell Science, 2022, 135, .	1.2	6
62	Procathepsin V Is Secreted in a TSH Regulated Manner from Human Thyroid Epithelial Cells and Is Accessible to an Activity-Based Probe. International Journal of Molecular Sciences, 2020, 21, 9140.	1.8	5
63	Trace Amine-Associated Receptor 1 Trafficking to Cilia of Thyroid Epithelial Cells. Cells, 2021, 10, 1518.	1.8	5
64	Release from Endoplasmic Reticulum Matrix Proteins Controls Cell Surface Transport of <scp>MHC</scp> Class I Molecules. Traffic, 2015, 16, 591-603.	1.3	4
65	The murine cytomegalovirus immunoevasin gp40/m152 inhibits NKG2D receptor RAE-1Î³ by intracellular retention and cell surface masking. Journal of Cell Science, 2021, 134, .	1.2	4
66	Comparative validation of a microcapsule-based immunoassay for the detection of proteins and nucleic acids. PLoS ONE, 2018, 13, e0201009.	1.1	3
67	Homotypic and heterotypic in cis associations of MHC class I molecules at the cell surface. Current Research in Immunology, 2022, 3, 85-99.	1.2	2
68	Intracellular transport: Small 19/2009. Small, 2009, 5, NA-NA.	5.2	0
69	Dual-Focus Fluorescence Correlation Spectroscopy: Measuring Translational and Rotational Diffusion of Biomolecules. Biophysical Journal, 2010, 98, 586a.	0.2	0
70	The tapasin isoform NeTT (new tapasin transcript) encoded by an alternatively spliced transcript lacking exon 3 impairs PLC (peptide loading complex) conferred stabilization of MHC class I molecules. Molecular Immunology, 2012, 51, 16.	1.0	0
71	Tapasin dependence of MHC class I molecules correlates with their conformational flexibility. Molecular Immunology, 2012, 51, 31.	1.0	0
72	Enhanced immunogenicity of MHC class I-restricted tumor-associated altered peptide ligands. Molecular Immunology, 2012, 51, 33-34.	1.0	0

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73	Determining the Activity of the Transporter Associated with Antigen Processing in the Compartments of the Secretory Pathway. Methods in Molecular Biology, 2013, 960, 137-144.	0.4	0
74	The Prominence of the Ligand Peptide Carboxyl Terminus in the MHC Class I Molecules Stability and Affinity. Biophysical Journal, 2014, 106, 662a-663a.	0.2	0
75	Polyelectrolyte Microcapsule Based Assay for Monitoring Biotechnological Processes In Vitro and In Vivo. Biophysical Journal, 2014, 106, 621a.	0.2	0
76	AntikÃ¶rper-Mikropatterns zur Analyse von Proteininteraktionen in Zellen. BioSpektrum, 2018, 24, 400-403.	0.0	0
77	Abstract B049: Empty MHC class I molecules for improved detection of antigen-specific T-cells. , 2019, , .		0
78	Reply to "Identification of thermodynamic quantities of the stability of peptide-MHC I complex using nanoscale differential scanning fluorimetry" by Jakob Harris and Jonghoon Kang. Molecular Immunology, 2022, 141, 257.	1.0	0
79	Tailored Nanoparticles as Vaccine Components. Applied Sciences (Switzerland), 2021, 11, 11898.	1.3	0