

LacZ Î²-galactosidase: Structure and function of molecular biological importance

Protein Science

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Intramolecular strategies and stereoelectronic effects. Glycosides hydrolysis revisited. <i>Pure and Applied Chemistry</i> , 1993, 65, 1161-1178.	0.9	65
2	Effects of Alcohols and Compatible Solutes on the Activity of β -Galactosidase. <i>Applied Biochemistry and Biotechnology</i> , 2013, 169, 786-794.	1.4	38
3	Structural Explanation for Allolactose (lac Operon Inducer) Synthesis by β -Galactosidase and the Evolutionary Relationship between Allolactose Synthesis and the lac Repressor. <i>Journal of Biological Chemistry</i> , 2013, 288, 12993-13005.	1.6	42
4	Biochemical characterization of mutants in the active site residues of the β -galactosidase enzyme of <i>Bacillus circulans</i> ATCC 31382. <i>FEBS Open Bio</i> , 2014, 4, 1015-1020.	1.0	21
5	Structure of β -galactosidase at 3.2-Å resolution obtained by cryo-electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 11709-11714.	3.3	184
6	Studies of translational misreading in vivo show that the ribosome very efficiently discriminates against most potential errors. <i>Rna</i> , 2014, 20, 9-15.	1.6	80
7	Probiotic Properties of Lactic Acid Bacteria Isolated from Water-Buffalo Mozzarella Cheese. <i>Probiotics and Antimicrobial Proteins</i> , 2014, 6, 141-156.	1.9	47
8	Characterization of novel galactosylated chitin-oligosaccharides and chitosan-oligosaccharides. <i>International Dairy Journal</i> , 2014, 39, 330-335.	1.5	6
9	A Single Molecule Perspective on the Functional Diversity of <i>in Vitro</i> Evolved β -Glucuronidase. <i>Journal of the American Chemical Society</i> , 2014, 136, 5949-5955.	6.6	44
10	Molecular Mechanism of Antibody-Mediated Activation of β -galactosidase. <i>Structure</i> , 2014, 22, 621-627.	1.6	24
11	A particular silent codon exchange in a recombinant gene greatly influences host cell metabolic activity. <i>Microbial Cell Factories</i> , 2015, 14, 156.	1.9	18
12	Enzymatic Synthesis of Galactosylated Serine/Threonine Derivatives by β -Galactosidase from <i>Escherichia coli</i> . <i>International Journal of Molecular Sciences</i> , 2015, 16, 13714-13728.	1.8	4
13	A <i>lacZ</i> reporter gene expression atlas for 313 adult KOMP mutant mouse lines. <i>Genome Research</i> , 2015, 25, 598-607.	2.4	29
14	Potential of d-Octaarginine-Linked Polymers as an <i>in Vitro</i> Transfection Tool for Biomolecules. <i>Bioconjugate Chemistry</i> , 2015, 26, 1782-1790.	1.8	11
15	Conversion of cheese whey into a fucose- and glucuronic acid-rich extracellular polysaccharide by <i>Enterobacter A47</i> . <i>Journal of Biotechnology</i> , 2015, 210, 1-7.	1.9	22
16	Sortase A-mediated multi-functionalization of protein nanoparticles. <i>Chemical Communications</i> , 2015, 51, 12107-12110.	2.2	60
17	A new electrochemical substrate for rapid and sensitive <i>in vivo</i> monitoring of β -galactosidase gene expressions. <i>Analyst</i> , 2015, 140, 6040-6046.	1.7	12
18	A gene expression resource generated by genome-wide <i>lacZ</i> profiling in the mouse. <i>DMM Disease Models and Mechanisms</i> , 2015, 8, 1467-78.	1.2	12

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19	Three-in-one enzyme assay based on single molecule detection in femtoliter arrays. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 7443-7452.	1.9	25
20	Separation of <i>E. coli</i> chaperonin groEL from β -galactosidase without denaturation. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2015, 1007, 93-99.	1.2	7
21	Use of Reporter Genes in the Generation of Vaccinia Virus-Derived Vectors. <i>Viruses</i> , 2016, 8, 134.	1.5	3
22	Capture-Tag-Release: A Strategy for Small Molecule Labeling of Native Enzymes. <i>ChemBioChem</i> , 2016, 17, 1602-1605.	1.3	7
23	Luciferase NanoLuc as a reporter for gene expression and protein levels in <i>Saccharomyces cerevisiae</i> . <i>Yeast</i> , 2016, 33, 191-200.	0.8	52
24	Cold-Active β -Galactosidases: Sources, Biochemical Properties and Their Biotechnological Potential. <i>Grand Challenges in Biology and Biotechnology</i> , 2016, , 445-469.	2.4	2
25	Enzymatic modification of polysaccharides: Mechanisms, properties, and potential applications: A review. <i>Enzyme and Microbial Technology</i> , 2016, 90, 1-18.	1.6	149
26	Beta galactosidases in <i>Arabidopsis</i> and tomato—a mini review. <i>Biochemical Society Transactions</i> , 2016, 44, 150-158.	1.6	44
27	Characterization of the activity of β -galactosidase from <i>Escherichia coli</i> and <i>Drosophila melanogaster</i> in fixed and non-fixed <i>Drosophila</i> tissues. <i>Biochimie Open</i> , 2016, 3, 1-7.	3.2	12
28	Interaction-dependent native chemical ligation and protein trans-splicing (IDNCL-PTS) for detection and visualization of ligand-protein interactions. <i>ChemistrySelect</i> , 2016, 1, 1768-1772.	0.7	4
29	Fluorometric cell-based assay for β -galactosidase activity in probiotic gram-positive bacterial cells of <i>Lactobacillus helveticus</i> . <i>Journal of Microbiological Methods</i> , 2016, 128, 58-60.	0.7	12
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31	Role of the <i>ganSPQAB</i> Operon in Degradation of Galactan by <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2016, 198, 2887-2896.	1.0	22
32	Catalytic and substrate promiscuity: distinct multiple chemistries catalysed by the phosphatase domain of receptor protein tyrosine phosphatase. <i>Biochemical Journal</i> , 2016, 473, 2165-2177.	1.7	8
33	Potent Glycosidase Inhibition with Heterovalent Fullerenes: Unveiling the Binding Modes Triggering Multivalent Inhibition. <i>Chemistry - A European Journal</i> , 2016, 22, 11450-11460.	1.7	65
34	Structural Dissection of the Active Site of <i>Thermotoga maritima</i> β -Galactosidase Identifies Key Residues for Transglycosylating Activity. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 2917-2924.	2.4	21
35	Effects of tRNA modification on translational accuracy depend on intrinsic codon-anticodon strength. <i>Nucleic Acids Research</i> , 2016, 44, 1871-1881.	6.5	83
36	Overview and assessment of the histochemical methods and reagents for the detection of β -galactosidase activity in transgenic animals. <i>Anatomical Science International</i> , 2016, 91, 56-67.	0.5	29

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38	Engineering of the <i>Bacillus circulans</i> β -Galactosidase Product Specificity. <i>Biochemistry</i> , 2017, 56, 704-711.	1.2	30
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45	Using yeast to determine the functional consequences of mutations in the human p53 tumor suppressor gene: An introductory course-based undergraduate research experience in molecular and cell biology. <i>Biochemistry and Molecular Biology Education</i> , 2017, 45, 161-178.	0.5	24
46	Structure-activity relationships on the study of β -galactosidase folding/unfolding due to interactions with immobilization additives: Triton X-100 and ethanol. <i>International Journal of Biological Macromolecules</i> , 2017, 96, 87-92.	3.6	10
47	Development of a Long-Lived Luminescence Probe for Visualizing β -Galactosidase in Ovarian Carcinoma Cells. <i>Analytical Chemistry</i> , 2017, 89, 11679-11684.	3.2	140
48	Flexibility-Rigidity Coordination of the Dense Exopolysaccharide Matrix in Terrestrial Cyanobacteria Acclimated to Periodic Desiccation. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	1.4	29
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54	Measuring β -Galactosidase Activity in Gram-Positive Bacteria Using a Whole-Cell Assay with MUG as a Fluorescent Reporter. <i>Current Protocols in Toxicology / Editorial Board, Mahin D Maines (editor-in-chief) [et Al]</i> , 2017, 74, 4.44.1-4.44.8.	1.1	2

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65	Fluorescent Chemosensors as Future Tools for Cancer Biology. <i>ACS Chemical Biology</i> , 2018, 13, 1785-1798.	1.6	60
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73	Transition-State Ensembles Navigate the Pathways of Enzyme Catalysis. <i>Journal of Physical Chemistry B</i> , 2018, 122, 5809-5819.	1.2	10
74	Recent progresses in small-molecule enzymatic fluorescent probes for cancer imaging. <i>Chemical Society Reviews</i> , 2018, 47, 7140-7180.	18.7	689
75	Direct synthesis of N-terminal thiazolidine-containing peptide thioesters from peptide hydrazides. <i>Chemical Communications</i> , 2018, 54, 9127-9130.	2.2	16
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94	A novel wide-range microfluidic dilution device for drug screening. <i>Biomicrofluidics</i> , 2019, 13, 024105.	1.2	2
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107	Cross-subunit catalysis and a new phenomenon of recessive resurrection in <i>Escherichia coli</i> RNase E. <i>Nucleic Acids Research</i> , 2020, 48, 847-861.	6.5	15
108	Photoacoustic reporter genes for noninvasive molecular imaging and theranostics. <i>Journal of Innovative Optical Health Sciences</i> , 2020, 13, 2030005.	0.5	4
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118	Beta galactosidase mediated bio-enzymatically synthesized nano-gold with aggrandized cytotoxic potential against pathogenic bacteria and cancer cells. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2020, 209, 111923.	1.7	11
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135	Prebiotic properties of <i>Bacillus coagulans</i> MA-13: production of galactoside hydrolyzing enzymes and characterization of the transglycosylation properties of a GH42 β -galactosidase. <i>Microbial Cell Factories</i> , 2021, 20, 71.	1.9	18
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