Tomoyasu Aizawa

List of Publications by Year
in descending order

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97 papers	2,166 citations	201674 27 h-index	289244 40 g-index
97 all docs	97 docs citations	97 times ranked	2723 citing authors

#	Article	IF	Citations
1	abf-1 and abf-2, ASABF-type antimicrobial peptide genes in Caenorhabditis elegans. Biochemical Journal, 2002, 361, 221-230.	3.7	104
2	R-Spondin1 expands Paneth cells and prevents dysbiosis induced by graft-versus-host disease. Journal of Experimental Medicine, 2017, 214, 3507-3518.	8.5	96
3	abf-1 and abf-2, ASABF-type antimicrobial peptide genes in Caenorhabditis elegans. Biochemical Journal, 2002, 361, 221.	3.7	85
4	Enhanced nerve regeneration through a bilayered chitosan tube: The effect of introduction of glycine spacer into the CYIGSR sequence. Journal of Biomedical Materials Research - Part A, 2008, 85A, 919-928.	4.0	82
5	Role of Putative Anion-Binding Sites in Cytoplasmic and Extracellular Channels ofNatronomonas pharaonisHalorhodopsinâ€. Biochemistry, 2005, 44, 4775-4784.	2.5	70
6	Heat-treatment method for producing fatty acid-bound alpha-lactalbumin that induces tumor cell death. Biochemical and Biophysical Research Communications, 2008, 376, 211-214.	2.1	69
7	Overexpression of Antimicrobial, Anticancer, and Transmembrane Peptides in Escherichia coli through a Calmodulin-Peptide Fusion System. Journal of the American Chemical Society, 2016, 138, 11318-11326.	13.7	67
8	Interaction between tachyplesin I, an antimicrobial peptide derived from horseshoe crab, and lipopolysaccharide. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 527-534.	2.3	64
9	A new allergen family involved in pollen food-associated syndrome: Snakin/gibberellin-regulated proteins. Journal of Allergy and Clinical Immunology, 2018, 141, 411-414.e4.	2.9	59
10	Molecular Mechanisms of the Cytotoxicity of Human Î±-Lactalbumin Made Lethal to Tumor Cells (HAMLET) and Other Protein-Oleic Acid Complexes. Journal of Biological Chemistry, 2013, 288, 14408-14416.	3.4	46
11	Expression, purification and characterization of the recombinant cysteine-rich antimicrobial peptide snakin-1 in Pichia pastoris. Protein Expression and Purification, 2016, 122, 15-22.	1.3	46
12	A Novel N14Y Mutation in Connexin26 in Keratitis-Ichthyosis-Deafness Syndrome. American Journal of Pathology, 2006, 169, 416-423.	3.8	44
13	Development of a novel multiplex lateral flow assay using an antimicrobial peptide for the detection of Shiga toxin-producing Escherichia coli. Journal of Microbiological Methods, 2013, 93, 251-256.	1.6	44
14	Crystal Structure of Cel44A, a Glycoside Hydrolase Family 44 Endoglucanase from Clostridium thermocellum. Journal of Biological Chemistry, 2007, 282, 35703-35711.	3.4	43
15	A Novel Î²-Defensin Structure: A Potential Strategy of Big Defensin for Overcoming Resistance by Gram-Positive Bacteria. Biochemistry, 2008, 47, 10611-10619.	2.5	43
16	Structure and Activity of the Insect Cytokine Growth-blocking Peptide. Journal of Biological Chemistry, 2001, 276, 31813-31818.	3.4	38
17	Adsorption of human lysozyme onto hydroxyapatite. FEBS Letters, 1998, 422, 175-178.	2.8	37
18	Construction of an expression system of insect lysozyme lacking thermal stability: the effect of selection of signal sequence on level of expression in the Pichia pastoris expression system. Protein Engineering, Design and Selection, 2001, 14, 705-710.	2.1	36

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19	Solution Structure of an Insect Growth Factor, Growth-blocking Peptide. Journal of Biological Chemistry, 1999, 274, 1887-1890.	3.4	34
20	The Structure of a Novel Insect Peptide Explains Its Ca²⁺ Channel Blocking and Antifungal Activities[,]. Biochemistry, 2007, 46, 13733-13741.	2.5	34
21	A Novel Peptide Mediates Aggregation and Migration of Hemocytes from an Insect. Current Biology, 2009, 19, 779-785.	3.9	34
22	Pollen/Fruit Syndrome: Clinical Relevance of the Cypress Pollen Allergenic Gibberellin-Regulated Protein. Allergy, Asthma and Immunology Research, 2019, 11, 143.	2.9	34
23	Expression and purification of a small cytokine growth-blocking peptide from armyworm Pseudaletia separata by an optimized fermentation method using the methylotrophic yeast Pichia pastoris. Protein Expression and Purification, 2002, 25, 416-425.	1.3	33
24	Identification of proteins involved in membrane fouling in membrane bioreactors (MBRs) treating municipal wastewater. International Biodeterioration and Biodegradation, 2012, 75, 15-22.	3.9	30
25	Halorhodopsin from Natronomonas pharaonis Forms a Trimer Even in the Presence of a Detergent, Dodecylâ€Î²â€<scp>d</scp>â€maltoside. Photochemistry and Photobiology, 2009, 85, 130-136.	2.5	29
26	Structural Analysis of an Insect Lysozyme Exhibiting Catalytic Efficiency at Low Temperatures,. Biochemistry, 2002, 41, 12086-12092.	2.5	28
27	Decrease of Î±-defensin impairs intestinal metabolite homeostasis via dysbiosis in mouse chronic social defeat stress model. Scientific Reports, 2021, 11, 9915.	3.3	28
28	In Vitro Antimicrobial Properties of Recombinant ASABF, an Antimicrobial Peptide Isolated from the Nematode Ascaris suum. Antimicrobial Agents and Chemotherapy, 2000, 44, 2701-2705.	3.2	27
29	Role of S-Palmitoylation on IFITM5 for the Interaction with FKBP11 in Osteoblast Cells. PLoS ONE, 2013, 8, e75831.	2.5	27
30	Interaction of dopamine and acetylcholine with an amphiphilic resorcinarene receptor in aqueous micelle system. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 1367-1370.	2.2	26
31	Structure determination of uniformly 13C, 15N labeled protein using qualitative distance restraints from MAS solid-state 13C-NMR observed paramagnetic relaxation enhancement. Journal of Biomolecular NMR, 2016, 64, 87-101.	2.8	25
32	Solution structure of paralytic peptide of silkworm, Bombyx mori. Peptides, 2002, 23, 2111-2116.	2.4	23
33	The solution structure of horseshoe crab antimicrobial peptide tachystatin B with an inhibitory cystine-knot motif. Journal of Peptide Science, 2007, 13, 269-279.	1.4	23
34	Probing the Clâ^'-pumping photocycle of pharaonis halorhodopsin: Examinations with bacterioruberin, an intrinsic dye, and membrane potential-induced modulation of the photocycle. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 748-758.	1.0	23
35	Polyglutamine tract binding protein-1 is an intrinsically unstructured protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 936-943.	2.3	22
36	A Novel Î²-Defensin Structure: Big Defensin Changes Its N-Terminal Structure To Associate with the Target Membrane. Biochemistry, 2009, 48, 7629-7635.	2.5	22

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37	Lipopolysaccharide-bound structure of the antimicrobial peptide cecropin P1 determined by nuclear magnetic resonance spectroscopy. Journal of Peptide Science, 2016, 22, 214-221.	1.4	21
38	Expression of salinarum halorhodopsin in Escherichia coli cells: Solubilization in the presence of retinal yields the natural state. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2905-2912.	2.6	19
39	Gibberellinâ€regulated protein sensitization in Japanese cedar (Cryptomeria japonica) pollen allergic Japanese cohorts. Allergy: European Journal of Allergy and Clinical Immunology, 2021, 76, 2297-2302.	5.7	19
40	Solution structure of betacellulin, a new member of EGF-family ligands. Biochemical and Biophysical Research Communications, 2002, 294, 1040-1046.	2.1	18
41	Destabilization of transthyretin by pathogenic mutations in the DE loop. Proteins: Structure, Function and Bioinformatics, 2006, 66, 716-725.	2.6	17
42	Development of an injectable chitosan/marine collagen composite gel. Biomedical Materials (Bristol), 2010, 5, 065009.	3.3	17
43	Homotrimer Formation and Dissociation of pharaonis Halorhodopsin in Detergent System. Biophysical Journal, 2012, 102, 2906-2915.	0.5	17
44	Photochemical characterization of actinorhodopsin and its functional existence in the natural host. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1900-1908.	1.0	17
45	Functional importance of the oligomer formation of the cyanobacterial H+ pump Gloeobacter rhodopsin. Scientific Reports, 2019, 9, 10711.	3.3	17
46	Direct Detection of the Substrate Uptake and Release Reactions of the Light-Driven Sodium-Pump Rhodopsin. Journal of the American Chemical Society, 2020, 142, 16023-16030.	13.7	17
47	Solution structure of epiregulin and the effect of its C-terminal domain for receptor binding affinity. FEBS Letters, 2003, 553, 232-238.	2.8	16
48	Structure determination and conformational change induced by tyrosine phosphorylation of the N-terminal domain of the Î±-chain of pig gastric H+/K+-ATPase. Biochemical and Biophysical Research Communications, 2003, 300, 223-229.	2.1	16
49	Peptide mimics of epidermal growth factor (EGF) with antagonistic activity. Journal of Biotechnology, 2005, 116, 211-219.	3.8	16
50	Equilibrium and Kinetics of the Folding and Unfolding of Canine Milk Lysozyme. Biochemistry, 2007, 46, 5238-5251.	2.5	16
51	Unfolding and aggregation of transthyretin by the truncation of 50 Nâ€terminal amino acids. Proteins: Structure, Function and Bioinformatics, 2008, 72, 261-269.	2.6	16
52	In vivo fluorescence correlation spectroscopy analyses of <scp>FMBP</scp>â€1, a silkworm transcription factor. FEBS Open Bio, 2016, 6, 106-125.	2.3	16
53	The subtype of Cupressaceae pollinosis associated with Pru p 7 sensitization is characterized by a sensitization to a crossâ€reactive gibberellinâ€regulated protein in cypress pollen: BP 14. Clinical and Experimental Allergy, 2019, 49, 1163-1166.	2.9	16
54	Polyglutamine tract-binding protein-1 binds to U5-15kD via a continuous 23-residue segment of the C-terminal domain. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 1500-1507.	2.3	15

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55	Role of Thr218 in the Light-Driven Anion Pump Halorhodopsin from Natronomonas pharaonis. Biochemistry, 2013, 52, 9257-9268.	2.5	15
56	Role of Arg123 in Lightâ€driven Anion Pump Mechanisms of pharaonis Halorhodopsin^{â€}. Photochemistry and Photobiology, 2009, 85, 547-555.	2.5	14
57	Photochemical study of a cyanobacterial chloride-ion pumping rhodopsin. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 136-146.	1.0	14
58	Xâ€ray crystallography and structural stability of digestive lysozyme from cow stomach. FEBS Journal, 2009, 276, 2192-2200.	4.7	13
59	Cordyceps militaris Fruit Body Extract Decreases Testosterone Catabolism and Testosterone-Stimulated Prostate Hypertrophy. Nutrients, 2021, 13, 50.	4.1	12
60	Thermal stability and enzymatic activity of a smaller lysozyme from silk moth (Bombyx mori). The Protein Journal, 2001, 20, 107-113.	1.1	11
61	Effect of Chloride Binding on the Thermal Trimerâ^'Monomer Conversion of Halorhodopsin in the Solubilized System. Biochemistry, 2009, 48, 12089-12095.	2.5	11
62	Disease progression-associated alterations in fecal metabolites in SAMP1/YitFc mice, a Crohnâ€™s disease model. Metabolomics, 2020, 16, 48.	3.0	11
63	CapsicumAllergy: Involvement of Cap a 7, a New Clinically Relevant Gibberellin-Regulated Protein Cross-Reactive With Cry j 7, the Gibberellin-Regulated Protein From Japanese Cedar Pollen. Allergy, Asthma and Immunology Research, 2022, 14, 328.	2.9	11
64	Production and characterization of recombinant tachycitin, the Cys-rich chitin-binding protein. Protein Engineering, Design and Selection, 2002, 15, 763-769.	2.1	10
65	Disassembling and Bleaching of Chloride-Free pharaonis Halorhodopsin by Octyl-Î²-glucoside. Biochemistry, 2005, 44, 12923-12931.	2.5	10
66	Enhanced expression of cysteineâ€rich antimicrobial peptide snakinâ€1 in Escherichia coli using an aggregationâ€prone protein coexpression system. Biotechnology Progress, 2017, 33, 1520-1528.	2.6	10
67	Structural Approach to a Novel Tandem Repeat DNA-Binding Domain, STPR, by CD and NMR,. Biochemistry, 2007, 46, 1703-1713.	2.5	9
68	DNA-Binding Property of the Novel DNA-Binding Domain STPR in FMBP-1 of the Silkworm Bombyx mori. Journal of Biochemistry, 2009, 146, 103-111.	1.7	9
69	Efficient production of a correctly folded mouse Î±-defensin, cryptdin-4, by refolding during inclusion body solubilization. Protein Expression and Purification, 2015, 112, 21-28.	1.3	9
70	Spontaneous asparaginyl deamidation of canine milk lysozyme under mild conditions. Proteins: Structure, Function and Bioinformatics, 2008, 72, 313-322.	2.6	8
71	Structural properties of the DNAâ€bound form of a novel tandem repeat DNAâ€binding domain, STPR. Proteins: Structure, Function and Bioinformatics, 2008, 72, 414-426.	2.6	8
72	STPR, a 23-Amino Acid Tandem Repeat Domain, Found in the Human Function-Unknown Protein ZNF821. Biochemistry, 2010, 49, 8367-8375.	2.5	8

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73	A Non-Native Î±-Helix Is Formed in the Â-Sheet Region of the Molten Globule State of Canine Milk Lysozyme. Protein Journal, 2004, 23, 335-342.	1.6	7
74	Overexpression of an antimicrobial peptide derived from C. elegans using an aggregation-prone protein coexpression system. AMB Express, 2013, 3, 45.	3.0	7
75	Proteins causing membrane fouling in membrane bioreactors. Water Science and Technology, 2015, 72, 844-849.	2.5	7
76	Dynamic Associations of Milk Components With the Infant Gut Microbiome and Fecal Metabolites in a Motherâ€“Infant Model by Microbiome, NMR Metabolomic, and Time-Series Clustering Analyses. Frontiers in Nutrition, 2021, 8, 813690.	3.7	7
77	Roles of Aromatic Residues in the Structure and Biological Activity of the Small Cytokine, Growth-blocking Peptide (GBP). Journal of Biological Chemistry, 2003, 278, 10778-10783.	3.4	6
78	The Gly-Gly Linker Region of the Insect Cytokine Growth-blocking Peptide Is Essential for Activity. Journal of Biological Chemistry, 2004, 279, 51331-51337.	3.4	6
79	A new approach to detect small peptides clearly and sensitively by Western blotting using a vacuum-assisted detection method. Biophysics (Nagoya-shi, Japan), 2013, 9, 79-83.	0.4	6
80	Effects of the stabilization of the molten globule state on the folding mechanism of Î±-lactalbumin: A study of a chimera of bovine and human Î±-lactalbumin. Proteins: Structure, Function and Bioinformatics, 2005, 61, 356-365.	2.6	5
81	Effect of hydrostatic pressure on conformational changes of canine milk lysozyme between the native, molten globule, and unfolded states. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2004, 1702, 129-136.	2.3	4
82	The structure of S100A11 fragment explains a local structural change induced by phosphorylation. Journal of Peptide Science, 2008, 14, 1129-1138.	1.4	4
83	C-terminal Elongation of Growth-blocking Peptide Enhances Its Biological Activity and Micelle Binding Affinity. Journal of Biological Chemistry, 2009, 284, 29625-29634.	3.4	4
84	Structureâ€“activity relationship of a novel pentapeptide with cancer cell growthâ€inhibitory activity. Journal of Peptide Science, 2010, 16, 242-248.	1.4	4
85	The Structure of Physarum polycephalum Hemagglutinin I Suggests a Minimal Carbohydrate Recognition Domain of Legume Lectin Fold. Journal of Molecular Biology, 2011, 405, 560-569.	4.2	4
86	Potent bactericidal activity of reduced cryptdin-4 derived from its hydrophobicity and mediated by bacterial membrane disruption. Amino Acids, 2022, 54, 289-297.	2.7	4
87	Preparation and Observation of Fresh-frozen Sections of the Green Fluorescent Protein Transgenic Mouse Head. Acta Histochemica Et Cytochemica, 2006, 39, 31-34.	1.6	3
88	Structural Characterization of a Trapped Folding Intermediate of Pyrrolidone Carboxyl Peptidase from a Hyperthermophile. Biochemistry, 2012, 51, 6089-6096.	2.5	3
89	Implications for the impairment of the rapid channel closing of Proteomonas sulcata anion channelrhodopsin 1 at high Clâ» concentrations. Scientific Reports, 2018, 8, 13445.	3.3	3
90	Biophysical research in Hokkaido University, Japan. Biophysical Reviews, 2020, 12, 233-236.	3.2	3

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91	Bactericidal effect of cationic hydrogels prepared from hydrophilic polymers. Journal of Applied Polymer Science, 2020, 137, 49583.	2.6	3
92	N-Terminal Mutational Analysis of the Interaction Between Growth- Blocking Peptide (GBP) and Receptor of Insect Immune Cells. Protein and Peptide Letters, 2006, 13, 815-822.	0.9	2
93	Contributory presentations/posters. Journal of Biosciences, 1999, 24, 33-198.	1.1	0
94	Differential Scanning Calorimetry of a Metalloprotein under Controlled Metalâ€“Ion Activity. Protein Journal, 2006, 25, 475-482.	1.6	0
95	Volumetric Behavior of the Molten Globule State of Canine Milk Lysozyme. Protein and Peptide Letters, 2004, 11, 325-330.	0.9	0
96	Identification of Protein Adsorbing Site onto Solid Surface Using Hydrogen-Deuterium Exchange Labeling.. Seibutsu Butsuri, 1999, 39, 109-112.	0.1	0
97	Japanese cedar pollinosis and fruit allergy caused by GRPs. Nihon Shoni Arerugi Gakkaishi the Japanese Journal of Pediatric Allergy and Clinical Immunology, 2022, 36, 157-162.	0.2	0