Barbara Baird

List of Publications by Year
in descending order

108 papers	6,240 citations	50244 46 h-index	71651 76 g-index
110 all docs	110 docs citations	110 times ranked	4908 citing authors

#	Article	IF	Citations
1	Regulation of exocytosis and mitochondrial relocalization by Alpha-synuclein in a mammalian cell model. Npj Parkinson's Disease, 2019, 5, 12.	2.5	23
2	Computation of a Theoretical Membrane Phase Diagram and the Role of Phase in Lipid-Raft-Mediated Protein Organization. Journal of Physical Chemistry B, 2018, 122, 3500-3513.	1.2	13
3	Short chain ceramides disrupt immunoreceptor signaling by inhibiting segregation of Lo from Ld plasma membrane components. Biology Open, 2018, 7, .	0.6	8
4	Mechanisms of epidermal growth factor receptor signaling as characterized by patterned ligand activation and mutational analysis. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 1430-1435.	1.4	12
5	Molecular anatomy of the early events in STIM1 activation; oligomerization or conformational change?. Journal of Cell Science, 2017, 130, 2821-2832.	1.2	16
6	The FcÎµRI signaling cascade and integrin trafficking converge at patterned ligand surfaces. Molecular Biology of the Cell, 2017, 28, 3383-3396.	0.9	28
7	Rab11 Regulates the Mast Cell Exocytic Response. Traffic, 2016, 17, 1027-1041.	1.3	28
8	Roles for lipid heterogeneity in immunoreceptor signaling. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 830-836.	1.2	27
9	Roles for Ca2+ mobilization and its regulation in mast cell functions: recent progress. Biochemical Society Transactions, 2016, 44, 505-509.	1.6	27
10	STIM1 activation is regulated by a 14 amino acid sequence adjacent to the CRAC activation domain. AIMS Biophysics, 2016, 3, 99-118.	0.3	8
11	Nanodomains in early and later phases of FcÉ›RI signalling. Essays in Biochemistry, 2015, 57, 147-163.	2.1	15
12	A novel fluorescence-based biosynthetic trafficking method provides pharmacologic evidence that PI4-kinase IIIÎ± is important for protein trafficking from the endoplasmic reticulum to the plasma membrane. BMC Cell Biology, 2015, 16, 5.	3.0	5
13	Spatially Defined EGF Receptor Activation Reveals an F-Actin-Dependent Phospho-Erk Signaling Complex. Biophysical Journal, 2014, 107, 2639-2651.	0.2	20
14	Polyunsaturated fatty acids inhibit stimulated coupling between the ER Ca2+ sensor STIM1 and the Ca2+ channel protein Orai1 in a process that correlates with inhibition of stimulated STIM1 oligomerization. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 1210-1216.	1.2	18
15	Fabrication of electroactive composite nanofibers of functionalized polymer and CNT capable of specifically binding with the IgE (Immunoglobulin E) antibody. Surface and Interface Analysis, 2014, 46, 237-242.	0.8	4
16	Activation of Cdc42 is necessary for sustained oscillations of Ca2+ and PIP2 stimulated by antigen in RBL mast cells. Biology Open, 2014, 3, 700-710.	0.6	11
17	Distinct Stages of Stimulated FcÎµRI Receptor Clustering and Immobilization Are Identified through Superresolution Imaging. Biophysical Journal, 2013, 105, 2343-2354.	0.2	61
18	Mutations in the Polybasic Juxtamembrane Sequence of Both Plasma Membrane- and Endoplasmic Reticulum-localized Epidermal Growth Factor Receptors Confer Ligand-independent Cell Transformation. Journal of Biological Chemistry, 2013, 288, 34930-34942.	1.6	9

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19	Inhibitors of PI(4,5)P₂Synthesis Reveal Dynamic Regulation of IgE Receptor Signaling by Phosphoinositides in RBL Mast Cells. Molecular Pharmacology, 2013, 83, 793-804.	1.0	20
20	Toxoplasma gondii inhibits mast cell degranulation by suppressing phospholipase CÎ³-mediated Ca2+ mobilization. Frontiers in Microbiology, 2013, 4, 179.	1.5	11
21	Roles for Ca2+ Mobilization and Its Regulation in Mast Cell Functions. Frontiers in Immunology, 2012, 3, 104.	2.2	43
22	Archetypical Conductive Polymer Structure for Specific Interaction with Proteins. Journal of Macromolecular Science - Pure and Applied Chemistry, 2012, 49, 330-338.	1.2	3
23	Spatiotemporal Resolution of Mast Cell Granule Exocytosis. Journal of Cell Science, 2012, 125, 2986-94.	1.2	41
24	Molecular mechanisms of spontaneous and directed mast cell motility. Journal of Leukocyte Biology, 2012, 92, 1029-1041.	1.5	22
25	2D-ELDOR Study of Heterogeneity and Domain Structure Changes in Plasma Membrane Vesicles upon Cross-Linking of Receptors. Journal of Physical Chemistry B, 2011, 115, 10462-10469.	1.2	12
26	Sequestration of phosphoinositides by mutated MARCKS effector domain inhibits stimulated Ca²⁺mobilization and degranulation in mast cells. Molecular Biology of the Cell, 2011, 22, 4908-4917.	0.9	33
27	Stimulated association of STIM1 and Orai1 is regulated by the balance of PtdIns(4,5)<i>P</i>2 between distinct membrane pools. Journal of Cell Science, 2011, 124, 2602-2610.	1.2	82
28	Sphingosine derivatives inhibit cell signaling by electrostatically neutralizing polyphosphoinositides at the plasma membrane. Self/nonself, 2010, 1, 133-143.	2.0	5
29	A Basic Sequence in STIM1 Promotes Ca²⁺ Influx by Interacting with the C-Terminal Acidic Coiled Coil of Orai1. Biochemistry, 2010, 49, 1067-1071.	1.2	76
30	Ca2+ Waves Initiate Antigen-Stimulated Ca2+ Responses in Mast Cells. Journal of Immunology, 2009, 183, 6478-6488.	0.4	43
31	The Î²- and Î³-isoforms of type I PIP5K regulate distinct stages of Ca2+ signaling in mast cells. Journal of Cell Science, 2009, 122, 2567-2574.	1.2	40
32	Molecular Clustering of STIM1 with Orai1/CRACM1 at the Plasma Membrane Depends Dynamically on Depletion of Ca²⁺ Stores and on Electrostatic Interactions. Molecular Biology of the Cell, 2009, 20, 389-399.	0.9	139
33	Roles for SH2 and SH3 domains in Lyn kinase association with activated FcÎµRI in RBL mast cells revealed by patterned surface analysis. Journal of Structural Biology, 2009, 168, 161-167.	1.3	13
34	Real-Time Cross-Correlation Image Analysis of Early Events in IgE Receptor Signaling. Biophysical Journal, 2008, 94, 4996-5008.	0.2	15
35	Structural determinants for partitioning of lipids and proteins between coexisting fluid phases in giant plasma membrane vesicles. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 20-32.	1.4	200
36	Binding Mechanisms of PEGylated Ligands Reveal Multiple Effects of the PEG Scaffold. Biochemistry, 2008, 47, 1017-1030.	1.2	12

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37	Critical Fluctuations in Plasma Membrane Vesicles. ACS Chemical Biology, 2008, 3, 287-293.	1.6	420
38	Synthesis and Characterization of Î±,Ï‰â€•bi[2,4â€•dinitrophenyl (DNP)] poly(2â€•methoxystyrene) Functional Polymers. Initial Evaluation of the Interaction of the Functional Polymers with RBL Mast Cells. Journal of Macromolecular Science - Pure and Applied Chemistry, 2008, 45, 664-671.	1.2	6
39	Nanobiotechnology and Cell Biology: Micro- and Nanofabricated Surfaces to Investigate Receptor-Mediated Signaling. Annual Review of Biophysics, 2008, 37, 265-288.	4.5	86
40	Differential targeting of secretory lysosomes and recycling endosomes in mast cells revealed by patterned antigen arrays. Journal of Cell Science, 2007, 120, 3147-3154.	1.2	30
41	Lipid rafts, fluid/fluid phase separation, and their relevance to plasma membrane structure and function. Seminars in Cell and Developmental Biology, 2007, 18, 583-590.	2.3	132
42	Trivalent Ligands with Rigid DNA Spacers Reveal Structural Requirements For IgE Receptor Signaling in RBL Mast Cells. ACS Chemical Biology, 2007, 2, 674-684.	1.6	83
43	Fluorescence Resonance Energy Transfer between Lipid Probes Detects Nanoscopic Heterogeneity in the Plasma Membrane of Live Cells. Biophysical Journal, 2007, 92, 3564-3574.	0.2	75
44	Insights into immunoglobulin E receptor signaling from structurally defined ligands. Immunological Reviews, 2007, 217, 269-279.	2.8	82
45	Coexisting Domains in the Plasma Membranes of Live Cells Characterized by Spin-Label ESR Spectroscopy. Biophysical Journal, 2006, 90, 4452-4465.	0.2	128
46	Functionalized Surface Arrays for Spatial Targeting of Immune Cell Signaling. Journal of the American Chemical Society, 2006, 128, 5594-5595.	6.6	49
47	Dinitrophenyl ligand substrates and their application to immunosensors. Biosensors and Bioelectronics, 2006, 22, 63-70.	5.3	15
48	Molecular Templates for Bio-specific Recognition by Low-Energy Electron Beam Lithography. Nanobiotechnology, 2005, 1, 023-034.	1.2	16
49	Lipid segregation and IgE receptor signaling: A decade of progress. Biochimica Et Biophysica Acta - Molecular Cell Research, 2005, 1746, 252-259.	1.9	129
50	Reconstitution of Regulated Phosphorylation of FcÏµRI by a Lipid Raft-excluded Protein-tyrosine Phosphatase. Journal of Biological Chemistry, 2005, 280, 1230-1235.	1.6	59
51	Transmembrane Sequences Are Determinants of Immunoreceptor Signaling. Journal of Immunology, 2005, 175, 2123-2131.	0.4	53
52	Oligo(ethylene glycol) Containing Polymer Brushes as Bioselective Surfaces. Langmuir, 2005, 21, 2495-2504.	1.6	132
53	High Spatial Resolution Observation of Single-Molecule Dynamics in Living Cell Membranes. Biophysical Journal, 2005, 88, L43-L45.	0.2	63
54	Antigen-Decorated Shell Cross-Linked Nanoparticles:Â Synthesis, Characterization, and Antibody Interactions. Bioconjugate Chemistry, 2005, 16, 1246-1256.	1.8	46

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55	Visualization of plasma membrane compartmentalization with patterned lipid bilayers. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13798-13803.	3.3	131
56	In situ measurement of degranulation as a biosensor based on RBL-2H3 mast cells. Biosensors and Bioelectronics, 2004, 20, 791-796.	5.3	71
57	Antigenâ€Stimulated Trafficking from the Recycling Compartment to the Plasma Membrane in RBL Mast Cells. Traffic, 2003, 4, 190-200.	1.3	28
58	Lateral Diffusion of Membrane Lipid-Anchored Probes before and after Aggregation of Cell Surface IgE-Receptorsâ€. Journal of Physical Chemistry A, 2003, 107, 8310-8318.	1.1	35
59	Highly Effective Poly(Ethylene Glycol) Architectures for Specific Inhibition of Immune Receptor Activationâ€. Biochemistry, 2003, 42, 12739-12748.	1.2	55
60	Ordered and Disordered Phases Coexist in Plasma Membrane Vesicles of RBL-2H3 Mast Cells. An ESR Study. Biophysical Journal, 2003, 85, 1278-1288.	0.2	83
61	A Lipid Raft Environment Enhances Lyn Kinase Activity by Protecting the Active Site Tyrosine from Dephosphorylation. Journal of Biological Chemistry, 2003, 278, 20746-20752.	1.6	151
62	Disruption of lipid order by short-chain ceramides correlates with inhibition of phospholipase D and downstream signaling by FcÎµRI. Journal of Cell Science, 2003, 116, 3177-3187.	1.2	59
63	Bivalent Ligands with Rigid Double-Stranded DNA Spacers Reveal Structural Constraints on Signaling by FcÎµRI. Journal of Immunology, 2002, 169, 856-864.	0.4	68
64	Fluorescence Anisotropy Measurements of Lipid Order in Plasma Membranes and Lipid Rafts from RBL-2H3 Mast Cellsâ€. Biochemistry, 2001, 40, 12422-12429.	1.2	142
65	FcÎµRI as a paradigm for a lipid raft-dependent receptor in hematopoietic cells. Seminars in Immunology, 2001, 13, 99-105.	2.7	93
66	Cross-Correlation Analysis of Inner-Leaflet-Anchored Green Fluorescent Protein Co-Redistributed with IgE Receptors and Outer Leaflet Lipid Raft Components. Biophysical Journal, 2001, 80, 2120-2132.	0.2	117
67	Mutant RBL Mast Cells Defective in FcÎµRI Signaling and Lipid Raft Biosynthesis Are Reconstituted by Activated Rho-family GTPases. Molecular Biology of the Cell, 2000, 11, 3661-3673.	0.9	40
68	Heterogeneous Glycosylation of Immunoglobulin E Constructs Characterized by Top-Down High-Resolution 2-D Mass Spectrometryâ€. Biochemistry, 2000, 39, 3369-3376.	1.2	62
69	Critical Role for Cholesterol in Lyn-mediated Tyrosine Phosphorylation of FcÎµRI and Their Association with Detergent-resistant Membranes. Journal of Cell Biology, 1999, 145, 877-887.	2.3	306
70	Structural Aspects of the Association of FcÎµRI with Detergent-resistant Membranes. Journal of Biological Chemistry, 1999, 274, 1753-1758.	1.6	96
71	Membrane organization in immunoglobulin E receptor signaling. Current Opinion in Chemical Biology, 1999, 3, 95-99.	2.8	128
72	How does the plasma membrane participate in cellular signaling by receptors for immunoglobulin E?. Biophysical Chemistry, 1999, 82, 109-119.	1.5	76

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73	Electron Spin Resonance Characterization of Liquid Ordered Phase of Detergent-Resistant Membranes from RBL-2H3 Cells. Biophysical Journal, 1999, 77, 925-933.	0.2	118
74	Quantitative Analysis of Phospholipids in Functionally Important Membrane Domains from RBL-2H3 Mast Cells Using Tandem High-Resolution Mass Spectrometryâ€. Biochemistry, 1999, 38, 8056-8063.	1.2	274
75	FcÎµRI Signaling in Specialized Membrane Domains. , 1999, , 102-114.		0
76	Compartmentalized Activation of the High Affinity Immunoglobulin E Receptor within Membrane Domains. Journal of Biological Chemistry, 1997, 272, 4276-4280.	1.6	302
77	Evidence Supporting a Role for Microfilaments in Regulating the Coupling between Poorly Dissociable IgEâˆ'FcÎµRI Aggregates and Downstream Signaling Pathways. Biochemistry, 1997, 36, 7447-7456.	1.2	48
78	Altered Patterns of Tyrosine Phosphorylation and Syk Activation for Sterically Restricted Cyclic Dimers of IgE-FcÎµRIâ€. Biochemistry, 1997, 36, 2237-2242.	1.2	22
79	The Fc Segment of IgE Influences the Kinetics of Dissociation of a Symmetrical Bivalent Ligand from Cyclic Dimeric Complexesâ€. Biochemistry, 1996, 35, 5518-5527.	1.2	26
80	Fluorescence Resonance Energy Transfer Reveals Interleukin (IL)-1-dependent Aggregation of IL-1 Type I Receptors That Correlates with Receptor Activation. Journal of Biological Chemistry, 1995, 270, 27562-27568.	1.6	50
81	Alteration of Lipid Composition Modulates Fc.epsilon.RI Signaling in RBL-2H3 Cells. Biochemistry, 1995, 34, 4376-4384.	1.2	25
82	Effects of Subunit Mutation on the Rotational Dynamics of Fc.epsilon.RI, the High Affinity Receptor for IgE, in Transfected Cells. Biochemistry, 1995, 34, 6093-6099.	1.2	3
83	FcÎµRI and the T cell receptor for antigen activate similar signalling pathways in T cell-RBL cell hybrids. Cellular Signalling, 1993, 5, 155-167.	1.7	4
84	Structural mapping of IgE-Fc.epsilon.RI, an immunoreceptor complex. Accounts of Chemical Research, 1993, 26, 428-434.	7.6	21
85	Dynamic conformations compared for IgE and IgG1 in solution and bound to receptors. Biochemistry, 1992, 31, 7446-7456.	1.2	61
86	Rotational motion of monomeric and dimeric immunoglobulin E-receptor complexes. Biochemistry, 1992, 31, 567-575.	1.2	23
87	Aggregation of IgE-receptor complexes on rat basophilic leukemia cells does not change the intrinsic affinity but can alter the kinetics of the ligand-IgE interaction. Biochemistry, 1992, 31, 5350-5356.	1.2	63
88	Recent evidence for common signalling mechanisms among immunoreceptors that recognize foreign antigens. Cellular Signalling, 1992, 4, 339-349.	1.7	9
89	Characterization of new rat anti-mouse IgE monoclonals and their use along with chimeric IgE to further define the site that interacts with FcÎµRII and FcÎµRI. Molecular Immunology, 1991, 28, 1149-1154.	1.0	50
90	Conformations of IgE bound to its receptor Fc.epsilon.RI and in solution. Biochemistry, 1991, 30, 9125-9132.	1.2	81

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91	Dissociation kinetics of bivalent ligand-immunoglobulin E aggregates in solution. Biochemistry, 1991, 30, 2348-2356.	1.2	26
92	Bivalent ligand dissociation kinetics from receptor-bound immunoglobulin E: evidence for a time-dependent increase in ligand rebinding at the cell surface. Biochemistry, 1991, 30, 2357-2363.	1.2	31
93	Analysis of Ligand Binding and Cross-Linking of Receptors in Solution and on Cell Surfaces. , 1991, , 169-195.		0
94	Characterization of Model Antigens Composed of Biotinylated Haptens Bound to Avidin. Immunological Investigations, 1990, 19, 1-25.	1.0	6
95	A nanosecond fluorescence depolarization study on the segmental flexibility of receptor-bound immunoglobulin E. Biochemistry, 1990, 29, 4607-4612.	1.2	29
96	Microfilaments regulate the rate of exocytosis in rat basophilic leukemia cells. Biochemical and Biophysical Research Communications, 1990, 171, 222-229.	1.0	31
97	Structure and Function of the High-Affinity Receptor for Immunoglobulin E. , 1990, , 173-197.		10
98	Proteolytic Digestion of the Î² and Î³ Subunits of the Receptor for Immunoglobulin E at the Cytoplasmic Face of the Plasma Membrane. Journal of Receptors and Signal Transduction, 1989, 9, 235-258.	1.2	1
99	Interaction of IgE with Its High-Affinity Receptor. International Archives of Allergy and Immunology, 1989, 88, 23-28.	0.9	26
100	Cross-Linking of IgE-Receptor complexes at the cell surface: A fluorescence method for studying the binding of monovalent and bivalent haptens to IgE. Molecular Immunology, 1986, 23, 769-781.	1.0	60
101	Cross-Linking of IgE-receptor complexes at the cell surface: Synthesis and characterization of a long bivalent hapten that is capable of triggering mast cells and rat basophilic leukemia cells. Molecular Immunology, 1986, 23, 783-790.	1.0	49
102	Structural mapping of Fc receptor bound immunoglobulin E: proximity to the membrane surface of the antibody combining site and another site in the Fab segments. Biochemistry, 1985, 24, 6252-6259.	1.2	39
103	Structural mapping of membrane-bound immunoglobulin E-receptor complexes: use of monoclonal anti-IgE antibodies to probe the conformation of receptor-bound IgE. Biochemistry, 1985, 24, 6260-6267.	1.2	41
104	Segmental flexibility of receptor-bound immunoglobulin E. Biochemistry, 1985, 24, 7810-7820.	1.2	20
105	Enhancement of the recognition by cytotoxic T lymphocytes (CTL) of target membrane antigens after fusion with whole cells. Cellular Immunology, 1983, 75, 312-327.	1.4	5
106	Structural studies on the membrane-bound immunoglobulin E-receptor complex. 1. Characterization of large plasma membrane vesicles from rat basophilic leukemia cells and insertion of amphipathic fluorescent probes. Biochemistry, 1983, 22, 3466-3474.	1.2	110
107	Structural studies on the membrane-bound immunoglobulin E (IgE)-receptor complex. 2. Mapping of distances between sites on IgE and the membrane surface. Biochemistry, 1983, 22, 3475-3484.	1.2	67
108	A microtiter plate assay using cellulose acetate filters for measuring cellular [3H]serotonin release. Journal of Immunological Methods, 1983, 64, 365-375.	0.6	20