

John E Sondek

List of Publications by Year in descending order

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103
papers

11,017
citations

41258

49
h-index

35952

97
g-index

109
all docs

109
docs citations

109
times ranked

10063
citing authors

#	ARTICLE	IF	CITATIONS
1	GEF means go: turning on RHO GTPases with guanine nucleotide-exchange factors. <i>Nature Reviews Molecular Cell Biology</i> , 2005, 6, 167-180.	16.1	1,483
2	The 2.0 Å... crystal structure of a heterotrimeric G protein. <i>Nature</i> , 1996, 379, 311-319.	13.7	1,159
3	Crystal structure of a GA protein $\hat{1}^2\hat{1}^3$ dimer at 2.1 Å... resolution. <i>Nature</i> , 1996, 379, 369-374.	13.7	770
4	GTPase mechanism of Gproteins from the 1.7-Å... crystal structure of transducin $\hat{1}^{\pm}$ - GDP AlF $\hat{a}^{\sim}4$. <i>Nature</i> , 1994, 372, 276-279.	13.7	594
5	Crystal structure of Rac1 in complex with the guanine nucleotide exchange region of Tiam1. <i>Nature</i> , 2000, 408, 682-688.	13.7	332
6	Tiam1 mediates Ras activation of Rac by a PI(3)K-independent mechanism. <i>Nature Cell Biology</i> , 2002, 4, 621-625.	4.6	288
7	The experimental power of FR900359 to study Gq-regulated biological processes. <i>Nature Communications</i> , 2015, 6, 10156.	5.8	282
8	Structural determinants for GoLoco-induced inhibition of nucleotide release by G $\hat{1}^{\pm}$ subunits. <i>Nature</i> , 2002, 416, 878-881.	13.7	252
9	The <i>Pseudomonas syringae</i> effector AvrRpt2 cleaves its C-terminally acylated target, RIN4, from <i>Arabidopsis</i> membranes to block RPM1 activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 6496-6501.	3.3	250
10	Kinetic Scaffolding Mediated by a Phospholipase C $\hat{a}^{\sim}1^2$ and G $\langle \text{sub} \rangle \text{q} \langle \text{sub} \rangle$ Signaling Complex. <i>Science</i> , 2010, 330, 974-980.	6.0	209
11	A crystallographic view of interactions between Dbs and Cdc42: PH domain-assisted guanine nucleotide exchange. <i>EMBO Journal</i> , 2002, 21, 1315-1326.	3.5	198
12	Structural basis for the selective activation of Rho GTPases by Dbl exchange factors. <i>Nature Structural Biology</i> , 2002, 9, 468-475.	9.7	190
13	Phagocytosis of Apoptotic Cells Is Regulated by a UNC-73/TRIO-MIG-2/RhoG Signaling Module and Armadillo Repeats of CED-12/ELMO. <i>Current Biology</i> , 2004, 14, 2208-2216.	1.8	185
14	Tuba, a Novel Protein Containing Bin/Amphiphysin/Rvs and Dbl Homology Domains, Links Dynamin to Regulation of the Actin Cytoskeleton. <i>Journal of Biological Chemistry</i> , 2003, 278, 49031-49043.	1.6	161
15	Rac1b, a tumor associated, constitutively active Rac1 splice variant, promotes cellular transformation. <i>Oncogene</i> , 2004, 23, 9369-9380.	2.6	157
16	The Phospholipase C Isozymes and Their Regulation. <i>Sub-Cellular Biochemistry</i> , 2012, 58, 61-94.	1.0	149
17	TIR-only protein RBA1 recognizes a pathogen effector to regulate cell death in <i>Arabidopsis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E2053-E2062.	3.3	146
18	General and Versatile Autoinhibition of PLC Isozymes. <i>Molecular Cell</i> , 2008, 31, 383-394.	4.5	144

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19	G12q Directly Activates p63RhoGEF and Trio via a Conserved Extension of the Dbl Homology-associated Pleckstrin Homology Domain. <i>Journal of Biological Chemistry</i> , 2007, 282, 29201-29210.	1.6	132
20	REGULATION OF PHOSPHOLIPASE C ISOZYMES BY RAS SUPERFAMILY GTPASES. <i>Annual Review of Pharmacology and Toxicology</i> , 2006, 46, 355-379.	4.2	124
21	Crystal structure of Rac1 bound to its effector phospholipase C-β2. <i>Nature Structural and Molecular Biology</i> , 2006, 13, 1135-1140.	3.6	122
22	PH domain of ELMO functions in trans to regulate Rac activation via Dock180. <i>Nature Structural and Molecular Biology</i> , 2004, 11, 756-762.	3.6	121
23	GP-like (gg) domains: new frontiers in g-protein signaling and P-propeller scaffolding? Abbreviations: DEP, dishevelled/EGL-10/pleckstrin-related domain; DH, dbl-homology domain; GAP, guanosine triphosphatase-activating protein; GEF, guanine nucleotide exchange factor; GGL, G-gamma-like; GIRK, G-protein-gated inwardly rectifying potassium channel; GPCR, G-protein-coupled receptor; G protein, guanine nucleotide binding protein; GTPase, guanosine triphosphatase; mAChR, muscarinic acetylcholine receptor; MADK, Biochemical Biophysical Journal, 2001, 61, 1330-1337.	2.0	117
24	Leukemia-associated Rho Guanine Nucleotide Exchange Factor, a Dbl Family Protein Found Mutated in Leukemia, Causes Transformation by Activation of RhoA. <i>Journal of Biological Chemistry</i> , 2001, 276, 27145-27151.	1.6	112
25	Direct Activation of Phospholipase C-β by Rho. <i>Journal of Biological Chemistry</i> , 2003, 278, 41253-41258.	1.6	100
26	Crystal structure of the multifunctional G125-RGS9 complex. <i>Nature Structural and Molecular Biology</i> , 2008, 15, 155-162.	3.6	97
27	A Steric-Inhibition Model for Regulation of Nucleotide Exchange via the Dock180 Family of GEFs. <i>Current Biology</i> , 2005, 15, 371-377.	1.8	96
28	Mechanism of Phosphorylation-induced Activation of Phospholipase C-β Isozymes. <i>Journal of Biological Chemistry</i> , 2010, 285, 35836-35847.	1.6	96
29	The Pleckstrin Homology Domain of Phospholipase C-β2 as an Effector Site for Rac. <i>Journal of Biological Chemistry</i> , 2003, 278, 21099-21104.	1.6	95
30	Structural and Biochemical Characterization of CIB1 Delineates a New Family of EF-hand-containing Proteins. <i>Journal of Biological Chemistry</i> , 2005, 280, 8407-8415.	1.6	95
31	A unique fold of phospholipase C-β mediates dimerization and interaction with G12q. <i>Nature Structural Biology</i> , 2002, 9, 32-36.	9.7	93
32	Type III Effector Activation via Nucleotide Binding, Phosphorylation, and Host Target Interaction. <i>PLoS Pathogens</i> , 2007, 3, e48.	2.1	89
33	Molecular basis for Rac1 recognition by guanine nucleotide exchange factors. <i>Nature Structural Biology</i> , 2001, 8, 1037-1041.	9.7	84
34	Molecular cloning and characterization of PLC-β2. <i>Biochemical Journal</i> , 2005, 391, 667-676.	1.7	84
35	Accommodation of single amino acid insertions by the native state of staphylococcal nuclease. <i>Proteins: Structure, Function and Bioinformatics</i> , 1990, 7, 299-305.	1.5	83
36	Quantitative Analysis of the Effect of Phosphoinositide Interactions on the Function of Dbl Family Proteins. <i>Journal of Biological Chemistry</i> , 2001, 276, 45868-45875.	1.6	83

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37	Release of autoinhibition of ASEF by APC leads to CDC42 activation and tumor suppression. <i>Nature Structural and Molecular Biology</i> , 2007, 14, 814-823.	3.6	83
38	Multifunctional Roles for the PH Domain of Dbs in Regulating Rho GTPase Activation. <i>Journal of Biological Chemistry</i> , 2003, 278, 18393-18400.	1.6	76
39	Structure of Gî±i1 Bound to a GDP-Selective Peptide Provides Insight into Guanine Nucleotide Exchange. <i>Structure</i> , 2005, 13, 1069-1080.	1.6	74
40	Crystal Structures of the Type III Effector Protein AvrPphF and Its Chaperone Reveal Residues Required for Plant Pathogenesis. <i>Structure</i> , 2004, 12, 1669-1681.	1.6	73
41	The DH and PH Domains of Trio Coordinately Engage Rho GTPases for their Efficient Activation. <i>Journal of Molecular Biology</i> , 2007, 368, 1307-1320.	2.0	73
42	A PLCÎ²/PI3KÎ³-GSK3 Signaling Pathway Regulates Cofilin Phosphatase Slingshot2 and Neutrophil Polarization and Chemotaxis. <i>Developmental Cell</i> , 2011, 21, 1038-1050.	3.1	72
43	Novel mutations in RASGRP2, which encodes CalDAG-GEFI, abrogate Rap1 activation, causing platelet dysfunction. <i>Blood</i> , 2016, 128, 1282-1289.	0.6	68
44	An Effector Site That Stimulates G-protein GTPase in Photoreceptors. <i>Journal of Biological Chemistry</i> , 1995, 270, 14319-14324.	1.6	67
45	Calcium-dependent properties of CIB binding to the integrin Î±IIb cytoplasmic domain and translocation to the platelet cytoskeleton. <i>Biochemical Journal</i> , 1999, 342, 729-735.	1.7	67
46	Loss of Phosphatidylinositol 3-Phosphate Binding by the C-terminal Tiam-1 Pleckstrin Homology Domain Prevents in Vivo Rac1 Activation without Affecting Membrane Targeting. <i>Journal of Biological Chemistry</i> , 2003, 278, 11457-11464.	1.6	59
47	SmgGDS Is a Guanine Nucleotide Exchange Factor That Specifically Activates RhoA and RhoC. <i>Journal of Biological Chemistry</i> , 2011, 286, 12141-12148.	1.6	56
48	RhoA Activates Purified Phospholipase C-Î± by a Guanine Nucleotide-dependent Mechanism. <i>Journal of Biological Chemistry</i> , 2004, 279, 47992-47997.	1.6	54
49	Molecular Basis of CIB Binding to the Integrin Î±IIb Cytoplasmic Domain. <i>Journal of Biological Chemistry</i> , 2002, 277, 28877-28883.	1.6	53
50	Direct Activation of Human Phospholipase C by Its Well Known Inhibitor U73122. <i>Journal of Biological Chemistry</i> , 2011, 286, 12407-12416.	1.6	53
51	Structural basis for the activation of PLC-Î³ isozymes by phosphorylation and cancer-associated mutations. <i>ELife</i> , 2019, 8, .	2.8	52
52	Requirement For C-terminal Sequences in Regulation of Ect2 Guanine Nucleotide Exchange Specificity and Transformation. <i>Journal of Biological Chemistry</i> , 2004, 279, 25226-25233.	1.6	49
53	A Cell-Permeable Inhibitor to Trap Gî±q Proteins in the Empty Pocket Conformation. <i>Chemistry and Biology</i> , 2014, 21, 890-902.	6.2	47
54	The emerging role of insertions and deletions in protein engineering. <i>Current Opinion in Biotechnology</i> , 1995, 6, 387-393.	3.3	46

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55	Inhibition of NF- κ B Activity by $\hat{I}\hat{\kappa}B\hat{I}^2$ in Association with $\hat{I}\hat{\kappa}B$ -Ras. <i>Molecular and Cellular Biology</i> , 2004, 24, 3048-3056.	1.1	46
56	Mechanism of Activation and Inactivation of Gq/Phospholipase C- \hat{I}^2 Signaling Nodes. <i>Chemical Reviews</i> , 2011, 111, 6120-6129.	23.0	46
57	The Dbs PH domain contributes independently to membrane targeting and regulation of guanine nucleotide-exchange activity. <i>Biochemical Journal</i> , 2006, 400, 563-572.	1.7	42
58	Structural Insights into Fibronectin Type III Domain-mediated Signaling. <i>Journal of Molecular Biology</i> , 2007, 367, 303-309.	2.0	42
59	High-Throughput Screening for Small-Molecule Inhibitors of LARG-Stimulated RhoA Nucleotide Binding via a Novel Fluorescence Polarization Assay. <i>Journal of Biomolecular Screening</i> , 2009, 14, 161-172.	2.6	42
60	Larger than Dbl: new structural insights into RhoA activation. <i>Trends in Biochemical Sciences</i> , 2005, 30, 163-165.	3.7	41
61	Dual Activation of Phospholipase C- $\hat{\mu}$ by Rho and Ras GTPases. <i>Journal of Biological Chemistry</i> , 2008, 283, 29690-29698.	1.6	40
62	Auto-inhibition of the Dbl Family Protein Tim by an N-terminal Helical Motif. <i>Journal of Biological Chemistry</i> , 2007, 282, 13813-13823.	1.6	39
63	Phospholipase C isozymes as effectors of Ras superfamily GTPases. <i>Journal of Lipid Research</i> , 2009, 50, S243-S248.	2.0	39
64	Spatiotemporal dynamics of GEF-H1 activation controlled by microtubule- and Src-mediated pathways. <i>Journal of Cell Biology</i> , 2019, 218, 3077-3097.	2.3	38
65	Calcium-dependent properties of CIB binding to the integrin $\hat{\alpha}IIb$ cytoplasmic domain and translocation to the platelet cytoskeleton. <i>Biochemical Journal</i> , 1999, 342, 729.	1.7	38
66	Role of the C-Terminal SH3 Domain and N-Terminal Tyrosine Phosphorylation in Regulation of Tim and Related Dbl-Family Proteins. <i>Biochemistry</i> , 2008, 47, 6827-6839.	1.2	36
67	Activation of Human Phospholipase C- \hat{I}^2 by $G\hat{I}^2\hat{I}^3$. <i>Biochemistry</i> , 2008, 47, 4410-4417.	1.2	36
68	Established and Emerging Fluorescence-Based Assays for G-Protein Function: Ras-Superfamily GTPases. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2003, 6, 409-418.	0.6	36
69	Autoinhibition and Phosphorylation-Induced Activation of Phospholipase C- \hat{I}^3 Isozymes. <i>Biochemistry</i> , 2013, 52, 4810-4819.	1.2	35
70	Structural and energetic differences between insertions and substitutions in staphylococcal nuclease. <i>Proteins: Structure, Function and Bioinformatics</i> , 1992, 13, 132-140.	1.5	34
71	Membrane-induced Allosteric Control of Phospholipase C- \hat{I}^2 Isozymes. <i>Journal of Biological Chemistry</i> , 2014, 289, 29545-29557.	1.6	33
72	A Fluorogenic, Small Molecule Reporter for Mammalian Phospholipase C Isozymes. <i>ACS Chemical Biology</i> , 2011, 6, 223-228.	1.6	32

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73	Functional Analysis of Cdc42 Residues Required for Guanine Nucleotide Exchange. <i>Journal of Biological Chemistry</i> , 2002, 277, 50893-50898.	1.6	30
74	Crystal Structure of the DH/PH Fragment of Dbs without Bound GTPase. <i>Structure</i> , 2004, 12, 1079-1086.	1.6	30
75	Structure and Function of Vps15 in the Endosomal G Protein Signaling Pathway. <i>Biochemistry</i> , 2009, 48, 6390-6401.	1.2	30
76	Small Molecule Inhibitors of Phospholipase C from a Novel High-throughput Screen*. <i>Journal of Biological Chemistry</i> , 2013, 288, 5840-5848.	1.6	29
77	RhoGEF Specificity Mutants Implicate RhoA as a Target for Dbs Transforming Activity. <i>Molecular and Cellular Biology</i> , 2002, 22, 6895-6905.	1.1	27
78	Potent and Selective Peptide-based Inhibition of the G Protein G12q. <i>Journal of Biological Chemistry</i> , 2016, 291, 25608-25616.	1.6	26
79	Quantification of Isozyme-specific Activation of Phospholipase C β 2 by Rac GTPases and Phospholipase C β 1 by Rho GTPases in an Intact Cell Assay System. <i>Methods in Enzymology</i> , 2006, 406, 489-499.	0.4	25
80	AvrRpm1 Missense Mutations Weakly Activate RPS2-Mediated Immune Response in <i>Arabidopsis thaliana</i> . <i>PLoS ONE</i> , 2012, 7, e42633.	1.1	25
81	Multiplexed GTPase and GEF biosensor imaging enables network connectivity analysis. <i>Nature Chemical Biology</i> , 2020, 16, 826-833.	3.9	25
82	Prediction of Protein-Protein Interfaces on G-Protein β 2 Subunits Reveals a Novel Phospholipase C β 2 Binding Domain. <i>Journal of Molecular Biology</i> , 2009, 392, 1044-1054.	2.0	19
83	Accommodation of insertion mutations on the surface and in the interior of staphylococcal nuclease. <i>Protein Science</i> , 1994, 3, 391-401.	3.1	18
84	Role of the pleckstrin homology domain in intersectin-L Dbl homology domain activation of Cdc42 and signaling. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2003, 1640, 61-68.	1.9	18
85	A membrane-associated, fluorogenic reporter for mammalian phospholipase C isozymes. <i>Journal of Biological Chemistry</i> , 2018, 293, 1728-1735.	1.6	17
86	Calcium-induced structural rearrangements release autoinhibition in the Rap-GEF CalDAG-GEFI. <i>Journal of Biological Chemistry</i> , 2018, 293, 8521-8529.	1.6	16
87	The <i>Salmonella</i> Typhimurium effector SteC inhibits Cdc42-mediated signaling through binding to the exchange factor Cdc24 in <i>Saccharomyces cerevisiae</i> . <i>Molecular Biology of the Cell</i> , 2012, 23, 4430-4443.	0.9	14
88	High-Throughput Fluorescence Polarization Assay for the Enzymatic Activity of GTPase-Activating Protein of ADP-Ribosylation Factor (ARFGAP). <i>Journal of Biomolecular Screening</i> , 2011, 16, 717-723.	2.6	11
89	A negative-feedback loop regulating ERK1/2 activation and mediated by RasGPR2 phosphorylation. <i>Biochemical and Biophysical Research Communications</i> , 2016, 474, 193-198.	1.0	11
90	A Cdc42 Mutant Specifically Activated by Intersectin. <i>Biochemistry</i> , 2005, 44, 13282-13290.	1.2	8

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91	Fluorescent Phosphatidylinositol 4,5-Bisphosphate Derivatives with Modified 6-Hydroxy Group as Novel Substrates for Phospholipase C. <i>Biochemistry</i> , 2012, 51, 5300-5306.	1.2	8
92	Assays of Complex Formation between RGS Protein G β 3 Subunit-like Domains and G β 2 Subunits. <i>Methods in Enzymology</i> , 2002, 344, 702-723.	0.4	7
93	Designer proteins that competitively inhibit G β q by targeting its effector site. <i>Journal of Biological Chemistry</i> , 2021, 297, 101348.	1.6	7
94	Direct Activation of Purified Phospholipase C Epsilon by RhoA Studied in Reconstituted Phospholipid Vesicles. <i>Methods in Enzymology</i> , 2006, 406, 260-271.	0.4	5
95	A High-Throughput Assay to Identify Allosteric Inhibitors of the PLC- β 3 Isozymes Operating at Membranes. <i>Biochemistry</i> , 2020, 59, 4029-4038.	1.2	5
96	Dynamics of allosteric regulation of the phospholipase C- β 3 isozymes upon recruitment to membranes. <i>ELife</i> , 0, 11, .	2.8	4
97	Regulation of PLC β 2 Isoforms by Rac. <i>Methods in Enzymology</i> , 2006, 406, 272-280.	0.4	2
98	Fluorogenic XY-69 in Lipid Vesicles for Measuring Activity of Phospholipase C Isozymes. <i>Methods in Molecular Biology</i> , 2021, 2251, 225-236.	0.4	2
99	Structural Features of RhoGEFs. , 2003, , 751-755.		0
100	Molecular cloning and characterization of PLC β 2. <i>FASEB Journal</i> , 2006, 20, A693.	0.2	0
101	Activation of Human PLC β 2 by Gbetagamma. <i>FASEB Journal</i> , 2008, 22, 728.3.	0.2	0
102	Structural studies of RGS9/G β 5. <i>FASEB Journal</i> , 2008, 22, 539.2.	0.2	0
103	Structural Features of RhoGEFs. , 2010, , 1843-1847.		0