

# Senena Corbalan

## List of Publications by Year in descending order

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91  
papers

3,443  
citations

126907

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93  
docs citations

93  
times ranked

3244  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ca <sup>2+</sup> bridges the C2 membrane-binding domain of protein kinase C $\beta$ directly to phosphatidylserine. EMBO Journal, 1999, 18, 6329-6338.	7.8	323
2	Signaling through C2 domains: More than one lipid target. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 1536-1547.	2.6	189
3	Identification of the Mitogen-Activated Protein Kinase Phosphorylation Sites on Human Sos1 That Regulate Interaction with Grb2. Molecular and Cellular Biology, 1996, 16, 5674-5682.	2.3	158
4	The role of the PH domain in the signal-dependent membrane targeting of Sos. EMBO Journal, 1997, 16, 1351-1359.	7.8	118
5	Protein kinase C regulatory domains: The art of decoding many different signals in membranes. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2006, 1761, 633-654.	2.4	108
6	C2 Domains of Protein Kinase C Isoforms C $\beta$ , C $\delta$ , and C $\epsilon$ : Activation Parameters and Calcium Stoichiometries of the Membrane-Bound State. Biochemistry, 2002, 41, 11411-11424.	2.5	102
7	Structural and mechanistic insights into the association of PKC $\beta$ -C2 domain to PtdIns(4,5)P <sub>2</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6603-6607.	7.1	99
8	Structure of the C2 domain from novel protein kinase C $\mu$ . A membrane binding model for Ca <sup>2+</sup> -independent C2 domains. Journal of Molecular Biology, 2001, 311, 837-849.	4.2	97
9	A New Phosphatidylinositol 4,5-Bisphosphate-binding Site Located in the C2 Domain of Protein Kinase C $\beta$ . Journal of Biological Chemistry, 2003, 278, 4972-4980.	3.4	92
10	C2 Domain of Protein Kinase C $\beta$ : Elucidation of the Membrane Docking Surface by Site-Directed Fluorescence and Spin Labeling. Biochemistry, 2003, 42, 1254-1265.	2.5	91
11	Regulation of Sos Activity by Intramolecular Interactions. Molecular and Cellular Biology, 1998, 18, 880-886.	2.3	90
12	The Simultaneous Production of Phosphatidic Acid and Diacylglycerol Is Essential for the Translocation of Protein Kinase C $\mu$ to the Plasma Membrane in RBL-2H3 Cells. Molecular Biology of the Cell, 2003, 14, 4885-4895.	2.1	81
13	Retinoic Acid Binds to the C2-Domain of Protein Kinase C $\beta$ . Biochemistry, 2003, 42, 8774-8779.	2.5	76
14	Additional Binding Sites for Anionic Phospholipids and Calcium Ions in the Crystal Structures of Complexes of the C2 Domain of Protein Kinase C $\beta$ . Journal of Molecular Biology, 2002, 320, 277-291.	4.2	74
15	Diacylglycerols, multivalent membrane modulators. Chemistry and Physics of Lipids, 2007, 148, 1-25.	3.2	72
16	Edelfosine Is Incorporated into Rafts and Alters Their Organization. Journal of Physical Chemistry B, 2008, 112, 11643-11654.	2.6	70
17	Structural insights into the Ca <sup>2+</sup> and PI(4,5)P <sub>2</sub> binding modes of the C2 domains of rabphilin 3A and synaptotagmin 1. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20503-20508.	7.1	64
18	Characterization of the Membrane Binding Mode of the C2 Domain of PKC $\mu$ . Biochemistry, 2003, 42, 11661-11668.	2.5	60

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19	Role of the Ca <sup>2+</sup> /Phosphatidylserine Binding Region of the C2 Domain in the Translocation of Protein Kinase C $\beta$ to the Plasma Membrane. <i>Journal of Biological Chemistry</i> , 2003, 278, 10282-10290.	3.4	60
20	Identification of the Phosphatidylserine Binding Site in the C2 Domain that Is Important for PKC $\beta$ Activation and in Vivo Cell Localization. <i>Biochemistry</i> , 2001, 40, 13898-13905.	2.5	59
21	The Solution Structure of the Pleckstrin Homology Domain of Human SOS1. <i>Journal of Biological Chemistry</i> , 1997, 272, 30340-30344.	3.4	58
22	Determination of the calcium-binding sites of the C2 domain of protein kinase C $\beta$ that are critical for its translocation to the plasma membrane. <i>Biochemical Journal</i> , 1999, 337, 513-521.	3.7	58
23	The C2 Domain of PKC $\beta$ Is a Ca <sup>2+</sup> -dependent PtdIns(4,5)P <sub>2</sub> Sensing Domain: A New Insight into an Old Pathway. <i>Journal of Molecular Biology</i> , 2006, 362, 901-914.	4.2	57
24	The C2 Domains of Classical PKCs are Specific PtdIns(4,5)P <sub>2</sub> -sensing Domains with Different Affinities for Membrane Binding. <i>Journal of Molecular Biology</i> , 2007, 371, 608-621.	4.2	51
25	Curcumin Disrupts 1,2-Dipalmitoyl-sn-glycero-3-phosphocholine Membranes and Favors the Formation of Nonlamellar Structures by 1,2-Dielaidoyl-sn-glycero-3-phosphoethanolamine. <i>Journal of Physical Chemistry B</i> , 2010, 114, 9778-9786.	2.6	45
26	The ATP-dependent Membrane Localization of Protein Kinase C $\beta$ Is Regulated by Ca <sup>2+</sup> Influx and Phosphatidylinositol 4,5-Bisphosphate in Differentiated PC12 Cells. <i>Molecular Biology of the Cell</i> , 2005, 16, 2848-2861.	2.1	43
27	A comparative study of the activation of protein kinase C $\beta$ by different diacylglycerol isomers. <i>Biochemical Journal</i> , 1999, 337, 387-395.	3.7	41
28	Calorimetric Study of the Interaction of the C2 Domains of Classical Protein Kinase C Isoenzymes with Ca <sup>2+</sup> and Phospholipids. <i>Biochemistry</i> , 2004, 43, 11727-11739.	2.5	41
29	Effect of Calcium and Phosphatidic Acid Binding on the C2 Domain of PKC $\beta$ As Studied by Fourier Transform Infrared Spectroscopy. <i>Biochemistry</i> , 1999, 38, 9667-9675.	2.5	39
30	Role of the Lysine-rich Cluster of the C2 Domain in the Phosphatidylserine-dependent Activation of PKC $\beta$ . <i>Journal of Molecular Biology</i> , 2004, 335, 1117-1129.	4.2	38
31	Structural characterization of the Rabphilin-3A-SNAP25 interaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E5343-E5351.	7.1	37
32	Conformation of the C-Terminal Domain of the Pro-Apoptotic Protein Bax and Mutants and Its Interaction with Membranes. <i>Biochemistry</i> , 2001, 40, 9983-9992.	2.5	36
33	The PtdIns(4,5)P <sub>2</sub> Ligand Itself Influences the Localization of PKC $\beta$ in the Plasma Membrane of Intact Living Cells. <i>Journal of Molecular Biology</i> , 2008, 377, 1038-1052.	4.2	34
34	Structural Study of the C2 Domains of the Classical PKC Isoenzymes Using Infrared Spectroscopy and Two-Dimensional Infrared Correlation Spectroscopy. <i>Biochemistry</i> , 2003, 42, 11669-11681.	2.5	33
35	Molecular Mechanisms of PKC $\beta$ localization and Activation by Arachidonic Acid. The C2 Domain also Plays a Role. <i>Journal of Molecular Biology</i> , 2006, 357, 1105-1120.	4.2	33
36	Extensive Proteolytic Digestion of the (Ca <sup>2+</sup> +Mg <sup>2+</sup> )-ATPase from Sarcoplasmic Reticulum Leads to a Highly Hydrophobic Proteinaceous Residue with a Mainly $\alpha$ -Helical Structure. <i>Biochemistry</i> , 1994, 33, 8247-8254.	2.5	30

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37	A Comparison of the Membrane Binding Properties of C1B Domains of PKC $\beta$ , PKC $\gamma$ , and PKC $\epsilon$ . Biophysical Journal, 2009, 96, 3638-3647.	0.5	28
38	Redox State of Coenzyme Q <sub>10</sub> Determines Its Membrane Localization. Journal of Physical Chemistry B, 2008, 112, 12696-12702.	2.6	27
39	Characterization of ruthenium red-binding sites of the Ca <sup>2+</sup> -ATPase from sarcoplasmic reticulum and their interaction with Ca <sup>2+</sup> -binding sites. Biochemical Journal, 1992, 287, 767-774.	3.7	25
40	The C2 domain of protein kinase C $\delta$ is directly involved in the diacylglycerol-dependent binding of the C1 domain to the membrane. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2000, 1487, 246-254.	2.4	25
41	The C2 domains of classical and novel PKCs as versatile decoders of membrane signals. BioFactors, 2010, 36, 1-7.	5.4	25
42	Determination of the calcium-binding sites of the C2 domain of protein kinase C $\delta$ that are critical for its translocation to the plasma membrane. Biochemical Journal, 1999, 337, 513.	3.7	23
43	An Infrared Spectroscopic Study of the Secondary Structure of Protein Kinase C $\delta$ and Its Thermal Denaturation. Biochemistry, 2004, 43, 2332-2344.	2.5	23
44	The Structure of the C-Terminal Domain of the Pro-Apoptotic Protein Bak and Its Interaction with Model Membranes. Biophysical Journal, 2002, 82, 233-243.	0.5	22
45	The vertical location of $\alpha$ -tocopherol in phosphatidylcholine membranes is not altered as a function of the degree of unsaturation of the fatty acyl chains. Physical Chemistry Chemical Physics, 2017, 19, 6731-6742.	2.8	22
46	Structural characterization of the C2 domain of novel protein kinase C $\mu$ . FEBS Journal, 2001, 268, 1107-1117.	0.2	21
47	A comparative study of the activation of protein kinase C $\delta$ by different diacylglycerol isomers. Biochemical Journal, 1999, 337, 387.	3.7	20
48	Study of the Secondary Structure of the C-Terminal Domain of the Antiapoptotic Protein Bcl-2 and Its Interaction with Model Membranes. Biochemistry, 2000, 39, 7744-7752.	2.5	20
49	The C2 domains of classical/conventional PKCs are specific PtdIns(4,5)P <sub>2</sub> -sensing domains. Biochemical Society Transactions, 2007, 35, 1046-1048.	3.4	20
50	Capsaicin Fluidifies the Membrane and Localizes Itself near the Lipid-Water Interface. ACS Chemical Neuroscience, 2015, 6, 1741-1750.	3.5	20
51	Membrane docking of the C2 domain from protein kinase C $\delta$ as seen by polarized ATR-IR. The role of PIP <sub>2</sub> . Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 684-695.	2.6	19
52	Intramolecular distances within the Ca <sup>2+</sup> -ATPase from sarcoplasmic reticulum as estimated through fluorescence energy transfer between probes. FEBS Journal, 1993, 217, 737-744.	0.2	18
53	Diacylglycerols as activators of protein kinase C (Review). Molecular Membrane Biology, 2004, 21, 339-349.	2.0	18
54	The interaction of the Bax C-terminal domain with negatively charged lipids modifies the secondary structure and changes its way of insertion into membranes. Journal of Structural Biology, 2008, 164, 146-152.	2.8	18

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55	Anticancer Agent Edelfosine Exhibits a High Affinity for Cholesterol and Disorganizes Liquid-Ordered Membrane Structures. <i>Langmuir</i> , 2018, 34, 8333-8346.	3.5	18
56	Retinoic Acid as a Modulator of the Activity of Protein Kinase C $\delta$ . <i>Biochemistry</i> , 2005, 44, 11353-11360.	2.5	17
57	Interaction of the C-terminal domain of Bcl-2 family proteins with model membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007, 1768, 2931-2939.	2.6	16
58	Classical protein kinases C are regulated by concerted interaction with lipids: the importance of phosphatidylinositol-4,5-bisphosphate. <i>Biophysical Reviews</i> , 2014, 6, 3-14.	3.2	16
59	Phenolic Group of $\alpha$ -Tocopherol Anchors at the Lipid-Water Interface of Fully Saturated Membranes. <i>Langmuir</i> , 2018, 34, 3336-3348.	3.5	14
60	Modulation of the Membrane Orientation and Secondary Structure of the C-Terminal Domains of Bak and Bcl-2 by Lipids. <i>Biochemistry</i> , 2005, 44, 10796-10809.	2.5	13
61	Interaction of the C2 Domain from Protein Kinase C $\mu$ with Model Membranes. <i>Biochemistry</i> , 2007, 46, 3183-3192.	2.5	13
62	Effects of the anti-neoplastic agent ET-18-OCH3 and some analogs on the biophysical properties of model membranes. <i>International Journal of Pharmaceutics</i> , 2006, 318, 28-40.	5.2	12
63	Phosphatidylinositol 4,5-Bisphosphate Decreases the Concentration of Ca <sup>2+</sup> , Phosphatidylserine and Diacylglycerol Required for Protein Kinase C $\delta$ to Reach Maximum Activity. <i>PLoS ONE</i> , 2013, 8, e69041.	2.5	12
64	Both idebenone and idebenol are localized near the lipid-water interface of the membrane and increase its fluidity. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 1071-1081.	2.6	12
65	Correlation between the effect of the anti-neoplastic ether lipid 1-O-octadecyl-2-O-methyl-glycero-3-phosphocholine on the membrane and the activity of protein kinase C $\delta$ . <i>FEBS Journal</i> , 2001, 268, 6369-6378.	0.2	11
66	ATP Enhances Neuronal Differentiation of PC12 Cells by Activating PKC $\delta$ Interactions with Cytoskeletal Proteins. <i>Journal of Proteome Research</i> , 2011, 10, 529-540.	3.7	11
67	Curcumin modulates PKC $\delta$ activity by a membrane-dependent effect. <i>Archives of Biochemistry and Biophysics</i> , 2011, 513, 36-41.	3.0	11
68	The membrane binding kinetics of full-length PKC $\delta$ is determined by membrane lipid composition. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2012, 1821, 1434-1442.	2.4	11
69	Structural study of the catalytic domain of PKCzeta using infrared spectroscopy and two-dimensional infrared correlation spectroscopy. <i>FEBS Journal</i> , 2006, 273, 3273-3286.	4.7	10
70	The interaction of the Bax C-terminal domain with membranes is influenced by the presence of negatively charged phospholipids. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2009, 1788, 1924-1932.	2.6	10
71	Activation of Protein Kinase C $\delta$ by Lipid Mixtures Containing Different Proportions of Diacylglycerols. <i>Biochemistry</i> , 2001, 40, 15038-15046.	2.5	9
72	KIR+ CD8+ T Lymphocytes in Cancer Immunosurveillance and Patient Survival: Gene Expression Profiling. <i>Cancers</i> , 2020, 12, 2991.	3.7	9

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73	Phosphatidylinositol Monophosphates Regulate Optimal Vav1 Signaling Output. <i>Cells</i> , 2019, 8, 1649.	4.1	8
74	Location of N-cyclohexyl-N'-(4-dimethyl-amino-alpha-naphthyl)carbodiimide-binding site in sarcoplasmic reticulum Ca <sup>2+</sup> -transporting ATPase. <i>FEBS Journal</i> , 1998, 253, 339-344.	0.2	7
75	Interaction of Vitamin K <sub>1</sub> and Vitamin K <sub>2</sub> with Dimyristoylphosphatidylcholine and Their Location in the Membrane. <i>Langmuir</i> , 2020, 36, 1062-1073.	3.5	7
76	A comparative study of the effect of the antineoplastic ether lipid 1-O-octadecyl-2-O-methyl-glycero-3-phosphocholine and some homologous compounds on PKC $\delta$ and PKC $\epsilon$ . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2005, 1687, 110-119.	2.4	6
77	Crystal structure of the C-terminal four-helix bundle of the potassium channel KCa3.1. <i>PLoS ONE</i> , 2018, 13, e0199942.	2.5	6
78	The C1B domains of novel PKC $\mu$ and PKC $\nu$ have a higher membrane binding affinity than those of the also novel PKC $\zeta$ and PKC $\iota$ . <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2014, 1838, 1898-1909.	2.6	5
79	Phosphatidylinositol-4,5-Bisphosphate Enhances Anionic Lipid Demixing by the C2 Domain of PKC $\delta$ . <i>PLoS ONE</i> , 2014, 9, e95973.	2.5	5
80	A kinetic study of an unstable enzyme measured through coupling reactions. Application to the self-inactivation of detergent-solubilized Ca <sup>2+</sup> -ATPase from sarcoplasmic reticulum. <i>BBA - Proteins and Proteomics</i> , 1993, 1203, 45-52.	2.1	4
81	Structural aspects of the Ca <sup>2+</sup> -ATPase from sarcoplasmic reticulum. <i>Biochemical Society Transactions</i> , 1994, 22, 826-829.	3.4	4
82	Chemical modification of Ca <sup>2+</sup> -ATPase from sarcoplasmic reticulum with phenylglyoxal. <i>Biochemical Society Transactions</i> , 1994, 22, 381S-381S.	3.4	3
83	Structural Characterization of the C2 Domains of Classical Isozymes of Protein Kinase C and Novel Protein Kinase C $\mu$ by using Infrared Spectroscopy. <i>Spectroscopy</i> , 2003, 17, 399-416.	0.8	2
84	Membrane Surface Anchoring of Charged Diacylglycerol-Lactones Correlates with Biological Activities. <i>ChemBioChem</i> , 2010, 11, 2003-2009.	2.6	2
85	Membrane docking mode of the C2 domain of PKC $\mu$ : An infrared spectroscopy and FRET study. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2013, 1828, 552-560.	2.6	2
86	The binding of different model membranes with PKC $\mu$ C2 domain is not dependent on membrane curvature but affects the sequence of events during unfolding. <i>Archives of Biochemistry and Biophysics</i> , 2021, 705, 108910.	3.0	2
87	PKC $\mu$ controls the fusion of secretory vesicles in mast cells in a phosphatidic acid-dependent mode. <i>International Journal of Biological Macromolecules</i> , 2021, 185, 377-389.	7.5	2
88	Involvement of an arginyl residue in the nucleotide-binding site of Ca <sup>2+</sup> -ATPase from sarcoplasmic reticulum as seen by reaction with phenylglyoxal. <i>Biochemical Journal</i> , 1996, 318, 179-185.	3.7	1
89	Quartz crystal microbalance with dissipation monitoring and the real-time study of biological systems and macromolecules at interfaces. <i>Biomedical Spectroscopy and Imaging</i> , 2012, 1, 325-338.	1.2	1
90	Inside Cover: Membrane-Surface Anchoring of Charged Diacylglycerol-Lactones Correlates with Biological Activities ( <i>ChemBioChem</i> 14/2010). <i>ChemBioChem</i> , 2010, 11, 1926-1926.	2.6	0

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91	X-ray diffraction and NMR data for the study of the location of idebenone and idebenol in model membranes. Data in Brief, 2016, 7, 981-989.	1.0	0