Two-way communication between SecY and SecA sugger for protein translocation

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Citation Report

#	Article	IF	CITATIONS
1	Composition and Activity of the Non-canonical Gram-positive SecY2 Complex. Journal of Biological Chemistry, 2016, 291, 21474-21484.	1.6	10
2	Membrane protein insertion and assembly by the bacterial holo-translocon SecYEG–SecDF–YajC–YidC. Biochemical Journal, 2016, 473, 3341-3354.	1.7	61
3	Protein Translocation: SecA–SecY Conformational Crosstalk Opens Channel. Current Biology, 2016, 26, R811-R813.	1.8	1
4	Allosteric Signaling Is Bidirectional in an Outer-Membrane Transport Protein. Biophysical Journal, 2016, 111, 1908-1918.	0.2	16
5	Biphasic actions of SecA inhibitors on Prl/Sec suppressors: Possible physiological roles of SecA-only channels. Biochemical and Biophysical Research Communications, 2017, 482, 296-300.	1.0	2
6	<scp>S</scp> ec <scp>A</scp> functions <i>in vivo</i> as a discrete antiâ€parallel dimer to promote protein transport. Molecular Microbiology, 2017, 103, 439-451.	1.2	18
7	Targeting and Insertion of Membrane Proteins. EcoSal Plus, 2017, 7, .	2.1	63
8	Structural and Mechanistic Insights into Protein Translocation. Annual Review of Cell and Developmental Biology, 2017, 33, 369-390.	4.0	258
9	Substrate translocation involves specific lysine residues of the central channel of the conjugative coupling protein TrwB. Molecular Genetics and Genomics, 2017, 292, 1037-1049.	1.0	6
10	The SecA protein deeply penetrates into the SecYEG channel during insertion, contacting most channel transmembrane helices and periplasmic regions. Journal of Biological Chemistry, 2017, 292, 19693-19707.	1.6	16
11	Transmembrane β-barrels: Evolution, folding and energetics. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 2467-2482.	1.4	49
12	Bacterial Translocation Ratchets: Shared Physical Principles with Different Molecular Implementations. BioEssays, 2017, 39, 1700099.	1.2	6
13	Alignment of the protein substrate hairpin along the SecA two-helix finger primes protein transport in <i>Escherichia coli</i> . Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9343-9348.	3.3	9
14	SecA—a New Twist in the Tale. Journal of Bacteriology, 2017, 199, .	1.0	8
15	Protein export through the bacterial Sec pathway. Nature Reviews Microbiology, 2017, 15, 21-36.	13.6	332
16	Dissecting structures and functions of SecA-only protein-conducting channels: ATPase, pore structure, ion channel activity, protein translocation, and interaction with SecYEG/SecDF•YajC. PLoS ONE, 2017, 12, e0178307.	1.1	3
17	Structurally detailed coarse-grained model for Sec-facilitated co-translational protein translocation and membrane integration. PLoS Computational Biology, 2017, 13, e1005427.	1.5	22
18	Mass spectrometry-enabled structural biology of membrane proteins. Methods, 2018, 147, 187-205.	1.9	69

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19	Driving Forces of Translocation Through Bacterial Translocon SecYEG. Journal of Membrane Biology, 2018, 251, 329-343.	1.0	27
20	Structure-based working model of SecDF, a proton-driven bacterial protein translocation factor. FEMS Microbiology Letters, 2018, 365, .	0.7	41
21	Single-molecule observation of nucleotide induced conformational changes in basal SecA-ATP hydrolysis. Science Advances, 2018, 4, eaat8797.	4.7	23
22	Large conformational changes of a highly dynamic pre-protein binding domain in SecA. Communications Biology, 2018, 1, 130.	2.0	14
23	The way is the goal: how SecA transports proteins across the cytoplasmic membrane in bacteria. FEMS Microbiology Letters, 2018, 365, .	0.7	64
24	Specific cardiolipin–SecY interactions are required for proton-motive force stimulation of protein secretion. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7967-7972.	3.3	65
25	Dynamic action of the Sec machinery during initiation, protein translocation and termination. ELife, 2018, 7, .	2.8	52
26	Dynamic hydrogen-bond networks in bacterial protein secretion. FEMS Microbiology Letters, 2018, 365,	0.7	8
27	Molecular Mimicry of SecA and Signal Recognition Particle Binding to the Bacterial Ribosome. MBio, 2019, 10, .	1.8	20
28	SecA-Mediated Protein Translocation through the SecYEG Channel. Microbiology Spectrum, 2019, 7, .	1.2	11
29	Structural dynamics of membrane-protein folding from single-molecule FRET. Current Opinion in Structural Biology, 2019, 58, 124-137.	2.6	23
30	Structure of the substrate-engaged SecA-SecY protein translocation machine. Nature Communications, 2019, 10, 2872.	5.8	55
31	Protein Translocation Activity in Surface-Supported Lipid Bilayers. Langmuir, 2019, 35, 12246-12256.	1.6	10
32	Energy coupling in ABC exporters. Research in Microbiology, 2019, 170, 392-398.	1.0	5
33	The Dynamic ATP-Driven Mechanism of Bacterial Protein Translocation and the Critical Role of Phospholipids. Frontiers in Microbiology, 2019, 10, 1217.	1.5	24
34	Protein Transport Across the Bacterial Plasma Membrane by the Sec Pathway. Protein Journal, 2019, 38, 262-273.	0.7	30
35	Crosslinking and Reconstitution Approaches to Study Protein Transport. Protein Journal, 2019, 38, 229-235.	0.7	1
36	The Principles of Protein Targeting and Transport Across Cell Membranes. Protein Journal, 2019, 38, 236-248.	0.7	8

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37	Direct visualization of the <i>E. coli</i> Sec translocase engaging precursor proteins in lipid bilayers. Science Advances, 2019, 5, eaav9404.	4.7	19
38	Single-Molecule Studies on the Protein Translocon. Annual Review of Biophysics, 2019, 48, 185-207.	4.5	13
39	Using Graphs of Dynamic Hydrogen-Bond Networks To Dissect Conformational Coupling in a Protein Motor. Journal of Chemical Information and Modeling, 2019, 59, 1882-1896.	2.5	20
40	Protein translocation by the SecA ATPase occurs by a powerâ€stroke mechanism. EMBO Journal, 2019, 38,	3.5	47
41	Structural Basis of the Sec Translocon and YidC Revealed Through X-ray Crystallography. Protein Journal, 2019, 38, 249-261.	0.7	13
42	Post-Translational Protein Transport by the Sec Complex. Trends in Biochemical Sciences, 2019, 44, 481-483.	3.7	8
43	SecA-Mediated Protein Translocation through the SecYEG Channel. , 0, , 13-28.		0
44	Substrate Proteins Take Shape at an Improved Bacterial Translocon. Journal of Bacteriology, 2019, 201,	1.0	2
45	Investigating the stability of the SecA–SecYEG complex during protein translocation across the bacterial membrane. Journal of Biological Chemistry, 2019, 294, 3577-3587.	1.6	11
46	The Preprotein Binding Domain of SecA Displays Intrinsic Rotational Dynamics. Structure, 2019, 27, 90-101.e6.	1.6	12
47	Refined measurement of SecA-driven protein secretion reveals that translocation is indirectly coupled to ATP turnover. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31808-31816.	3.3	27
48	SecY-mediated quality control prevents the translocation of non-gated porins. Scientific Reports, 2020, 10, 16347.	1.6	2
49	The Structure of Clostridioides difficile SecA2 ATPase Exposes Regions Responsible for Differential Target Recognition of the SecA1 and SecA2-Dependent Systems. International Journal of Molecular Sciences, 2020, 21, 6153.	1.8	0
50	The SecA motor generates mechanical force during protein translocation. Nature Communications, 2020, 11, 3802.	5.8	26
51	Omics Analysis Reveals the Mechanism of Enhanced Recombinant Protein Production Under Simulated Microgravity. Frontiers in Bioengineering and Biotechnology, 2020, 8, 30.	2.0	8
52	Characterizing the Locus of a Peripheral Membrane Protein–Lipid Bilayer Interaction Underlying Protein Export Activity inE. coli. Langmuir, 2020, 36, 2143-2152.	1.6	5
53	The Dynamic SecYEG Translocon. Frontiers in Molecular Biosciences, 2021, 8, 664241.	1.6	39
54	Lateral gate dynamics of the bacterial translocon during cotranslational membrane protein insertion. Proceedings of the National Academy of Sciences of the United States of <u>America, 2021, 118, .</u>	3.3	14

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55	Elucidating Protein Translocon Dynamics with Single-Molecule Precision. Trends in Cell Biology, 2021, 31, 569-583.	3.6	2
56	Dynamics ante portas. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2110553118.	3.3	2
57	Methodologies for Measuring Protein Trafficking across Cellular Membranes. ChemPlusChem, 2021, 86, 1397-1415.	1.3	4
59	Skyrmion ratchet in funnel geometries. Physical Review B, 2021, 104, .	1.1	20
60	Open, engage, bind, translocate: The multi-level dynamics of bacterial protein translocation. Structure, 2021, 29, 781-782.	1.6	2
61	A nexus of intrinsic dynamics underlies translocase priming. Structure, 2021, 29, 846-858.e7.	1.6	17
63	Protease protection assays show polypeptide movement into the SecY channel by power strokes of the SecA ATPase. EMBO Reports, 2020, 21, e50905.	2.0	12
64	ATP-induced asymmetric pre-protein folding as a driver of protein translocation through the Sec machinery. ELife, 2019, 8, .	2.8	32
65	HDX-MS reveals nucleotide-dependent, anti-correlated opening and closure of SecA and SecY channels of the bacterial translocon. ELife, 2019, 8, .	2.8	20
73	Dynamics of Membrane Proteins Monitored by Single-Molecule Fluorescence Across Multiple Timescales. Methods in Molecular Biology, 2020, 2168, 273-297.	0.4	1
75	Preproteins couple the intrinsic dynamics of SecA to its ATPase cycle to translocate via a catch and release mechanism. Cell Reports, 2022, 38, 110346.	2.9	5
76	Rate-limiting transport of positively charged arginine residues through the Sec-machinery is integral to the mechanism of protein secretion. ELife, 2022, 11, .	2.8	13
78	Generalized Approach towards Secretion-Based Protein Production via Neutralization of Secretion-Preventing Cationic Substrate Residues. International Journal of Molecular Sciences, 2022, 23, 6700.	1.8	2
79	Ribosome profiling reveals multiple roles of SecA in cotranslational protein export. Nature Communications, 2022, 13, .	5.8	9
80	Bacterial Signal Peptides- Navigating the Journey of Proteins. Frontiers in Physiology, 0, 13, .	1.3	15
81	Molecular dynamics of DNA translocation by FtsK. Nucleic Acids Research, 2022, 50, 8459-8470.	6.5	1
83	Effect of Sec62 on the conformation of the Sec61 channel in yeast. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 184050.	1.4	1
84	Singleâ€molecule approaches reveal outer membrane protein biogenesis dynamics. BioEssays, 2022, 44, .	1.2	4

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85	Single-Molecule Optical Tweezers As a Tool for Delineating the Mechanisms of Protein-Processing Mechanoenzymes. ACS Omega, 2023, 8, 87-97.	1.6	4
86	Atomic Force Microscopy Reveals Complexity Underlying General Secretory System Activity. International Journal of Molecular Sciences, 2023, 24, 55.	1.8	1
87	Structural basis of SecA-mediated protein translocation. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	4
88	Interaction of the periplasmic chaperone SurA with the inner membrane protein secretion (SEC) machinery. Biochemical Journal, 2023, 480, 283-296.	1.7	5