Resource Summary Report

Generated by RRID on Aug 5, 2026

MoonProt

RRID:SCR_008803
Type: Tool

Proper Citation

MoonProt (RRID:SCR_008803)

Resource Information

URL: http://tigger.uic.edu/~cjeffery/

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Description: The moonlighting protein database is not yet available publicly. Stay tuned. Moonlighting proteins have multiple, seemingly unrelated functions not due to gene fusions or alternative splicing. Like PGI, which is a cytosolic enzyme and an extracellular cytokine, dozens of other proteins have been found to moonlight. Connie coined the term moonlighting proteins and has written several review articles that develop the idea of moonlighting proteins and describe additional moonlighting proteins from the literature, how they switch between functions, how they might have evolved, and how they might benefit the cell. She is currently writing two additional invited articles and planning computational studies of the sequences and structures of known moonlighting proteins.

Synonyms: Moonlighting proteins database

Resource Type: portal, organization portal, laboratory portal, data or information resource

Defining Citation: PMID:12902157

Keywords: protein, multifunctional protein, double functional protein, protein database

Resource Name: MoonProt

Resource ID: SCR_008803

Alternate IDs: nlx_144357

Record Creation Time: 20220129T080249+0000

Record Last Update: 20260805T044213+0000

Ratings and Alerts

No rating or validation information has been found for MoonProt.

No alerts have been found for MoonProt.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 27 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID .

Sarma A, et al. (2025) Exoproteome Profiling Reveals Increased Secretion of Adhesins and Proteases by to Facilitate Host Colonization and Immune Modulation. ACS omega, 10(30), 32728.

Abrusán G, et al. (2025) Structural variability of multifunctional proteins indicates frequent stochastic evolution of protein oligomers. Communications biology, 8(1), 1820.

Monteiro R, et al. (2025) Temporal and Spatial Profiling of Escherichia coli O157:H7 Surface Proteome: Insights into Intestinal Colonisation Dynamics In Vivo. Proteomes, 13(4).

Seixas AMM, et al. (2024) Surface-Exposed Protein Moieties of Burkholderia cenocepacia J2315 in Microaerophilic and Aerobic Conditions. Vaccines, 12(4).

Bhardwaj RG, et al. (2024) Secretome analysis and virulence assessment in Abiotrophia defectiva. Journal of oral microbiology, 16(1), 2307067.

Oba GM, et al. (2024) Clover: An unbiased method for prioritizing differentially expressed genes using a data-driven approach. Genes to cells : devoted to molecular & cellular mechanisms, 29(6), 456.

Jurado-Martín I, et al. (2024) Proteomic approach to identify host cell attachment proteins provides protective Pseudomonas aeruginosa vaccine antigen FtsZ. NPJ vaccines, 9(1), 204.

Quiroz-Castañeda RE, et al. (2024) Molecular Identification and Bioinformatics Analysis of Anaplasma marginale Moonlighting Proteins as Possible Antigenic Targets. Pathogens (Basel, Switzerland), 13(10).

Thomas KE, et al. (2023) Moonlighting genes harbor antisense ORFs that encode potential membrane proteins. Scientific reports, 13(1), 12591.

Ye Q, et al. (2022) Low expression of moonlight gene ALAD is correlated with poor prognosis in hepatocellular carcinoma. Gene, 825, 146437.

Monteiro R, et al. (2021) The Secretome landscape of Escherichia coli O157:H7: Deciphering the cell-surface, outer membrane vesicle and extracellular subproteomes. Journal of proteomics, 232, 104025.

Chen C, et al. (2021) MoonProt 3.0: an update of the moonlighting proteins database. Nucleic acids research, 49(D1), D368.

Liu X, et al. (2021) IdentPMP: identification of moonlighting proteins in plants using sequence-based learning models. PeerJ, 9, e11900.

Shirafkan F, et al. (2021) Moonlighting protein prediction using physico-chemical and evolutional properties via machine learning methods. BMC bioinformatics, 22(1), 261.

Wolden R, et al. (2020) Identification of surface proteins in a clinical Staphylococcus haemolyticus isolate by bacterial surface shaving. BMC microbiology, 20(1), 80.

Tartaglia NR, et al. (2020) Extracellular vesicles produced by human and animal Staphylococcus aureus strains share a highly conserved core proteome. Scientific reports, 10(1), 8467.

Stincone P, et al. (2020) Nisin influence on the expression of Listeria monocytogenes surface proteins. Journal of proteomics, 226, 103906.

Alkandari SA, et al. (2020) Proteomics of extracellular vesicles produced by Granulicatella adiacens, which causes infective endocarditis. PloS one, 15(11), e0227657.

Su B, et al. (2019) PlantMP: a database for moonlighting plant proteins. Database : the journal of biological databases and curation, 2019.

Pagani TD, et al. (2019) Exploring the Potential Role of Moonlighting Function of the Surface-Associated Proteins From Mycobacterium bovis BCG Moreau and Pasteur by Comparative Proteomic. Frontiers in immunology, 10, 716.