

Resource Summary Report

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ProtParam Tool

RRID:SCR_018087

Type: Tool

Proper Citation

ProtParam Tool (RRID:SCR_018087)

Resource Information

URL: <https://web.expasy.org/protparam/>

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Description: Software tool to calculate various physicochemical parameters for given protein stored in Swiss-Prot or TrEMBL or for user entered protein sequence. Protein can either be specified as Swiss-Prot/TrEMBL accession number or ID, or in form of raw sequence. Computed parameters include molecular weight, theoretical pI, amino acid composition, atomic composition, extinction coefficient, estimated half-life, instability index, aliphatic index and grand average of hydropathicity.

Synonyms: ProtParam

Resource Type: analysis service resource, software application, service resource, production service resource, sequence analysis software, data processing software, data analysis software, software resource

Defining Citation: [PMID:10027275](https://pubmed.ncbi.nlm.nih.gov/10027275/)

Keywords: Calculate physicochemical parameter, protein, Swiss-Prot, TrEMBL, protein sequence, molecular weight, theoretical pI, amino acid composition, atomic composition, extinction coefficient, bio.tools

Funding: NHGRI U01 HG02712;
Swiss Federal Government through Federal Office of Education and Science

Availability: Free, Freely available

Resource Name: ProtParam Tool

Resource ID: SCR_018087

Alternate IDs: biotools:protparam

Alternate URLs: <https://bio.tools/protparam>

Record Creation Time: 20220129T080338+0000

Record Last Update: 20250402T061535+0000

Ratings and Alerts

No rating or validation information has been found for ProtParam Tool.

No alerts have been found for ProtParam Tool.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 4802 mentions in open access literature.

Listed below are recent publications. The full list is available at [FDI Lab - SciCrunch.org](#).

Walvekar AS, et al. (2025) Failure to repair damaged NAD(P)H blocks de novo serine synthesis in human cells. *Cellular & molecular biology letters*, 30(1), 3.

Wang J, et al. (2025) LC-AMP-I1, a novel venom-derived antimicrobial peptide from the wolf spider *Lycosa coelestis*. *Antimicrobial agents and chemotherapy*, 69(1), e0042424.

Knechtel JW, et al. (2025) KMT5C leverages disorder to optimize cooperation with HP1 for heterochromatin retention. *EMBO reports*, 26(1), 153.

Espinheira RP, et al. (2025) Discovery and Characterization of Mannan-Specialized GH5 Endo-1,4- α -mannanases: a Strategy for Açai (*Euterpe oleracea* Mart.) Seeds Upgrading. *Journal of agricultural and food chemistry*, 73(1), 625.

Guillou MC, et al. (2025) Phytocytokine genes newly discovered in *Malus domestica* and their regulation in response to *Erwinia amylovora* and acibenzolar-S-methyl. *The plant genome*, 18(1), e20540.

Wang Y, et al. (2025) Identification of the CaCRT gene family and function of CaCRT1 under low-temperature stress in pepper (*Capsicum annuum* L.). *Scientific reports*, 15(1), 90.

Wang P, et al. (2025) The StbHLH47 transcription factor negatively regulates drought tolerance in potato (*Solanum tuberosum* L.). *BMC plant biology*, 25(1), 14.

Wang HW, et al. (2025) Identification, characterization, and expression of *Oryza sativa* tryptophan decarboxylase genes associated with fluroxypyr-meptyl metabolism. *The plant genome*, 18(1), e20547.

Zubair S, et al. (2025) Computational design of multi-epitope vaccine against Hepatitis C Virus infection using immunoinformatics techniques. *PloS one*, 20(1), e0317520.

Islam MSU, et al. (2025) Genome-wide identification and characterization of cation-proton antiporter (CPA) gene family in rice (*Oryza sativa* L.) and their expression profiles in response to phytohormones. *PloS one*, 20(1), e0317008.

Uddin ME, et al. (2025) Identification and Characterization of a Protease Producing *Bacillus cereus* Strain From Tannery Waste for Efficient Dehairing of Goat Skin. *BioMed research international*, 2025, 7639181.

Guo Y, et al. (2025) TaWI12 may be involved in pistillody and leaf cracking in wheat. *BMC plant biology*, 25(1), 123.

Yang X, et al. (2025) The *Pyrus sinkiangensis* Yu PsLEA4 Gene Enhances the Cold Resistance of *Solanum lycopersicum*. *Plants (Basel, Switzerland)*, 14(2).

Sarwar S, et al. (2025) Genome-Wide Identification and In Silico Expression Analysis of CCO Gene Family in *Citrus clementina* (Citrus) in Response to Abiotic Stress. *Plants (Basel, Switzerland)*, 14(2).

Wu X, et al. (2025) Genome-Wide Identification, Phylogenetic Evolution, and Abiotic Stress Response Analyses of the Late Embryogenesis Abundant Gene Family in the Alpine Cold-Tolerant Medicinal *Notopterygium* Species. *International journal of molecular sciences*, 26(2).

Bian X, et al. (2025) Genome-Wide Identification and Expression Profile of Farnesyl Pyrophosphate Synthase (FPS) Gene Family in *Euphorbia hirta* L. *International journal of molecular sciences*, 26(2).

Feng X, et al. (2025) Genome-Wide Analysis of bZIP Transcription Factors and Expression Patterns in Response to Salt and Drought Stress in *Vaccinium corymbosum*. *International journal of molecular sciences*, 26(2).

Naveed M, et al. (2025) Scrutinizing the evidence of anthracene toxicity on adrenergic receptor beta-2 and its bioremediation by fungal manganese peroxidase via in silico approaches. *Scientific reports*, 15(1), 3795.

López CM, et al. (2025) CRISPR/Cas9 editing of two adenine phosphoribosyl transferase coding genes reveals the functional specialization of adenine salvage proteins in common bean. *Journal of experimental botany*, 76(2), 346.

O'Brien JH, et al. (2025) Cryo-EM Structure of Recombinantly Expressed hUGDH Unveils a Hidden, Alternative Allosteric Inhibitor. *Biochemistry*, 64(1), 92.