

Resource Summary Report

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Hmmer

RRID:SCR_005305

Type: Tool

Proper Citation

Hmmer (RRID:SCR_005305)

Resource Information

URL: <http://hmmer.janelia.org/>

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Description: Tool for searching sequence databases for homologs of protein sequences, and for making protein sequence alignments. It implements methods using probabilistic models called profile hidden Markov models (profile HMMs). Compared to BLAST, FASTA, and other sequence alignment and database search tools based on older scoring methodology, HMMER aims to be significantly more accurate and more able to detect remote homologs because of the strength of its underlying mathematical models. In the past, this strength came at significant computational expense, but in the new HMMER3 project, HMMER is now essentially as fast as BLAST.

Abbreviations: HMMER

Synonyms: HMMER - biosequence analysis using profile hidden Markov models

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

Defining Citation: [PMID:21593126](#), [DOI:10.1093/bioinformatics/14.9.755](#)

Keywords: homolog, protein sequence, source code, FASEB list

Funding: Howard Hughes Medical Institute

Resource Name: Hmmer

Resource ID: SCR_005305

Alternate IDs: OMICS_00996, nlx_144358

Alternate URLs: <https://sources.debian.org/src/hmmer/>

Record Creation Time: 20220129T080229+0000

Record Last Update: 20260912T195624+0000

Ratings and Alerts

No rating or validation information has been found for Hmmer.

No alerts have been found for Hmmer.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 9520 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Mao C, et al. (2026) Chromosome-level genome assembly and transcriptomes of the leaf insect *Cryptophyllum westwoodii* provide insights into the evolution of leaf-like masquerade. *GigaScience*, 15.

Francette AM, et al. (2026) Evolutionary analysis of transcription elongation factors reveals conserved and lineage-specific regulatory domains. *PLoS biology*, 24(6), e3003855.

Sharma M, et al. (2026) Improved reference assembly and core collection resequencing to facilitate exploration of important agronomical traits for the improvement of oilseed crop, *Carthamus tinctorius* L. *GigaScience*, 15.

Nickles GR, et al. (2026) Tracing the origins of crmA megasynthase through lichen genomes. *Current biology : CB*, 36(13), 3354.

Ghasemi F, et al. (2026) Expansion, functional diversification, and gene fusion events in the Ato protein family. *iScience*, 29(7), 116467.

Yan L, et al. (2026) A NACHT domain-containing protein Ncp is required for appendage-associated unconventional protein secretion in the fungus *Penicillium herquei*. *iScience*, 29(7), 116464.

Cho A, et al. (2026) Aerobic sister lineage of breviate has gene-rich mitochondrial genomes. *Current biology : CB*, 36(6), 1481.

Yu L, et al. (2026) Systematic characterization of PBP2 as the primary siderophore recognizer in Actinomycetes and other Gram-positive bacteria. *Microbial genomics*, 12(4).

Black JJ, et al. (2026) The *Legionella pneumophila* effector SidL is an adenylyltransferase that modifies the glycolytic intermediate 3-phosphoglycerate. *Molecular cell*.

Kannan S, et al. (2026) Evolution-guided protein design of IscB for persistent epigenome editing in vivo. *Nature biotechnology*, 44(5), 759.

Chasapi MN, et al. (2026) metagRoot: a comprehensive database of protein families associated with plant root microbiomes. *Nucleic acids research*, 54(D1), D1733.

Luo Y, et al. (2026) A chromosome-level genome assembly and multi-omics analyses provide insights into the biosynthesis of piperlongumine in *Piper sarmentosum*. *Communications biology*, 9(1), 170.

Wutkowska M, et al. (2026) Uncovering hidden phylo- and ecogenomic diversity of the widespread methanotrophic genus *Methylobacter*. *FEMS microbiology ecology*, 102(2).

Zhao G, et al. (2026) Improved Longan Genome Assembly Reveals Insights Into Flowering Mechanisms. *Plant biotechnology journal*, 24(3), 1678.

Lai Y, et al. (2026) Comparative genomics reveals the molecular basis for divergent algicidal strategies in two *Alteromonas macleodii* strains. *Applied and environmental microbiology*, 92(1), e0196525.

Xue Y, et al. (2026) The PbrMADS1-PbrMYB169 complex has uniquely emerged to regulate lignification of stone cells in pear. *Journal of integrative plant biology*, 68(1), 239.

Szablińska-Piernik J, et al. (2026) Giant chromosomes of a tiny plant-the complete telomere-to-telomere genome assembly of the simple thalloid liverwort *Apopellia endiviifolia* (Jungermanniopsida, Marchantiophyta). *GigaScience*, 15.

Kay CJ, et al. (2026) Dated gene duplications elucidate the evolutionary assembly of eukaryotes. *Nature*, 650(8100), 129.

Boey JS, et al. (2026) Genetic mechanisms for estuarine carbohydrate degradation and linked transcriptional activity. *Applied and environmental microbiology*, 92(2), e0185225.

Frederick A, et al. (2026) Altering chemotaxis as a strategy to enhance the foraging range of motility-restricted bacteria. *Communications biology*, 9(1), 197.