

Resource Summary Report

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RNAhybrid

RRID:SCR_003252

Type: Tool

Proper Citation

RNAhybrid (RRID:SCR_003252)

Resource Information

URL: <http://bibiserv.techfak.uni-bielefeld.de/rnahybrid/>

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Description: Software tool for finding the minimum free energy hybridization of a long and a short RNA. The hybridization is performed in a kind of domain mode, i.e., the short sequence is hybridized to the best fitting part of the long one. The tool is primarily meant as a means for microRNA target prediction.

Abbreviations: RNAhybrid

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

Defining Citation: [PMID:15383676](https://pubmed.ncbi.nlm.nih.gov/15383676/), [DOI:10.1261/rna.5248604](https://doi.org/10.1261/rna.5248604)

Keywords: microrna, target prediction, free energy, rna, bio.tools

Funding:

Resource Name: RNAhybrid

Resource ID: SCR_003252

Alternate IDs: OMICS_00416, biotools:rnahybrid, nif-0000-31412

Alternate URLs: <https://bio.tools/rnahybrid>, <https://sources.debian.org/src/rnahybrid/>

Record Creation Time: 20220129T080218+0000

Record Last Update: 20250412T054814+0000

Ratings and Alerts

No rating or validation information has been found for RNAhybrid.

No alerts have been found for RNAhybrid.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 444 mentions in open access literature.

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

Tiwari H, et al. (2025) In Silico Hybridization and Molecular Dynamics Simulations for the Identification of Candidate Human MicroRNAs for Inhibition of Virulent Proteins' Expression in Staphylococcus aureus. Journal of cellular biochemistry, 126(1), e30684.

Xie MQ, et al. (2025) Regulatory networks of mRNAs and miRNAs involved in the immune response of diamondback moth, Plutella xylostella to fungal infection. BMC genomics, 26(1), 15.

Yuan C, et al. (2025) Haemaphysalis longicornis subolesin controls the infection and transmission of severe fever with thrombocytopenia syndrome virus. NPJ vaccines, 10(1), 17.

Srivastava A, et al. (2024) In silico identification of papaya genome-encoded microRNAs to target begomovirus genes in papaya leaf curl disease. Frontiers in microbiology, 15, 1340275.

Jia Q, et al. (2024) miR-19b-3p regulated by estrogen controls lipid synthesis through targeting MSMO1 and ELOVL5 in LMH cells. Poultry science, 103(1), 103200.

Ashraf S, et al. (2024) Uncovering chikungunya virus-encoded miRNAs and host-specific targeted genes associated with antiviral immune responses: an integrated bioinformatics approach. Scientific reports, 14(1), 18614.

Gao X, et al. (2024) MiR-320 inhibits PRRSV replication by targeting PRRSV ORF6 and porcine CEBPB. Veterinary research, 55(1), 61.

Leonetti P, et al. (2024) Exploring the putative microRNAs cross-kingdom transfer in Solanum lycopersicum-Meloidogyne incognita interactions. Frontiers in plant science, 15,

1383986.

Chen W, et al. (2024) Integrated analysis of muscle transcriptome, miRNA, and proteome of Chinese indigenous breed Ningxiang pig in three developmental stages. *Frontiers in genetics*, 15, 1393834.

Pandey V, et al. (2024) In silico identification of chilli genome encoded MicroRNAs targeting the 16S rRNA and secA genes of "Candidatus phytoplasma trifolii". *Frontiers in bioinformatics*, 4, 1493712.

Estrada K, et al. (2024) Unraveling the plasticity of translation initiation in prokaryotes: Beyond the invariant Shine-Dalgarno sequence. *PloS one*, 19(1), e0289914.

Paniri A, et al. (2024) Genetic variations in IKZF3, LET7-a2, and CDKN2B-AS1: Exploring associations with metabolic syndrome susceptibility and clinical manifestations. *Journal of clinical laboratory analysis*, 38(1-2), e24999.

Zhang Y, et al. (2024) Virus-Induced Histone Lactylation Promotes Virus Infection in Crustacean. *Advanced science (Weinheim, Baden-Wuerttemberg, Germany)*, 11(30), e2401017.

Xiang C, et al. (2024) Fibroblast expression of neurotransmitter receptor HTR2A associates with inflammation in rheumatoid arthritis joint. *Clinical and experimental medicine*, 24(1), 84.

Liu M, et al. (2024) Analysis of microRNA Expression Profiles in Broiler Muscle Tissues by Feeding Different Levels of Guanidinoacetic Acid. *Current issues in molecular biology*, 46(4), 3713.

Rong X, et al. (2024) CircMEF2C(2, 3) modulates proliferation and adipogenesis of porcine intramuscular preadipocytes by miR-383/671-3p/MEF2C axis. *iScience*, 27(5), 109710.

Luo M, et al. (2024) High Stretch Modulates cAMP/ATP Level in Association with Purine Metabolism via miRNA-mRNA Interactions in Cultured Human Airway Smooth Muscle Cells. *Cells*, 13(2).

Li X, et al. (2024) Screening biomarkers for spinal cord injury using weighted gene co-expression network analysis and machine learning. *Neural regeneration research*, 19(12), 2723.

Zhan J, et al. (2024) Subcellular mass spectrometric detection unveils hyperglycemic memory in the diabetic heart. *Journal of diabetes*, 16(11), e70033.

Stachowiak M, et al. (2024) A massive alteration of gene expression in undescended testicles of dogs and the association of KAT6A variants with cryptorchidism. *Proceedings of the National Academy of Sciences of the United States of America*, 121(7), e2312724121.