

Resource Summary Report

Generated by [T1D](#) on Sep 20, 2026

[miRDeep](#)

RRID:SCR_010829

Type: Tool

Proper Citation

miRDeep (RRID:SCR_010829)

Resource Information

URL: [https://www.mdc-](https://www.mdc-berlin.de/8551903/en/research/research_teams/systems_biology_of_gene_regulatory_elements/pro)

[berlin.de/8551903/en/research/research_teams/systems_biology_of_gene_regulatory_elements/pro](https://www.mdc-berlin.de/8551903/en/research/research_teams/systems_biology_of_gene_regulatory_elements/pro)

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Description: Software tool to identify known and novel miRNA genes in seven animal clades by analyzing sequenced RNAs. Used for discovering known and novel miRNAs from small RNA sequencing data.

Abbreviations: miRDeep2

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

Defining Citation: [PMID:18392026](#), [PMID:21911355](#)

Keywords: miRNA, gene, animal, clade, analysis, sequence, RNA, data

Funding: China Scholarship Council ;
German Ministry of Education and Research ;
Helmholtz Association ;
Helmholtz-Alliance on Systems Biology ;
Max Delbrück Centrum Systems Biology Network ;
Senate of Berlin

Availability: Free, Available for download, Freely available

Resource Name: miRDeep

Resource ID: SCR_010829

Alternate IDs: OMICS_00373

Alternate URLs: <https://github.com/rajewsky-lab/mirdeep2>

License: GNU GPL v3

Record Creation Time: 20220129T080301+0000

Record Last Update: 20260919T195200+0000

Ratings and Alerts

No rating or validation information has been found for miRDeep.

No alerts have been found for miRDeep.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 182 mentions in open access literature.

Listed below are recent publications. The full list is available at [T1D](#).

Parlatan U, et al. (2026) Analysis of Plasma Extracellular Vesicles in Normal-Weight and Overweight Type 2 Diabetes Mellitus Using Multimodal SERS and RNA-Seq. bioRxiv : the preprint server for biology.

Dan Z, et al. (2026) Integration of phytohormones, miRNAs and transcriptome sequencing in cucumber fruit development under high-temperature stress. Food chemistry. Molecular sciences, 12, 100420.

Lin X, et al. (2025) Integrating gonadal RNA-seq and small RNA-seq to analyze mRNA and miRNA changes in medaka sex differentiation. Scientific data, 12(1), 778.

Zhang Y, et al. (2025) An Insight into Differentially Expressed Genes and MicroRNAs in the Pituitary Glands of the Two Estrous Phases of Sheep with Different FecB Genotypes. Animals : an open access journal from MDPI, 15(3).

Campbell AM, et al. (2025) Profiling miRNA changes in Epstein-Barr virus lytic infection identifies a function for BZLF1 in upregulating miRNAs from the DLK1-DIO3 locus. PLoS pathogens, 21(7), e1013347.

Chen Y, et al. (2025) Overexpression of miR-516a-5p Promotes Erosive Oral Lichen Planus: In Vitro Study Based on Bioinformatics Analyses. Clinical and experimental dental research, 11(6), e70270.

Wei Y, et al. (2025) A panel of six immune-related mRNAs as biomarkers for tuberculosis diagnosis. Frontiers in genetics, 16, 1544007.

Bayrak H, et al. (2025) Comparative Small RNA Sequencing Reveals Candidate Functional miRNAs in Nonketotic Hyperglycinemia. Molecular syndromology.

de la Cruz-Ojeda P, et al. (2025) In silico analysis of lncRNA-miRNA-mRNA signatures related to Sorafenib effectiveness in liver cancer cells. *World journal of gastroenterology*, 31(3), 95207.

Javaid N, et al. (2025) SFTSV NSs interacts with AGO2 to regulate the RNAi pathway for viral replication. *Journal of virology*, 99(4), e0220524.

Wang T, et al. (2025) Multiomics analysis provides insights into musk secretion in muskrat and musk deer. *GigaScience*, 14.

Kolanchi P, et al. (2025) Genomic exploration of *Bemisia tabaci* microRNAs using predictive modeling and confirmation through experimental evidence. *Scientific reports*, 15(1), 34006.

Wang M, et al. (2025) MicroRNA-mediated regulatory mechanisms in cow's ileum and ileum lymph node in response to *Mycobacterium avium* subspecies paratuberculosis infection. *Scientific reports*, 15(1), 43030.

Madrer N, et al. (2025) Conserved small RNA networks link inflammation to pain signaling in mice and men. *Translational psychiatry*, 16(1), 44.

Wang J, et al. (2025) Integrative and comparative analysis of whole-transcriptome sequencing in circCOL1A1-knockdown and circCOL1A1-overexpressing goat hair follicle stem cells. *Animal bioscience*, 38(6), 1116.

Liu Q, et al. (2025) Whole transcriptome analysis in oviduct provides insight into microRNAs and ceRNA regulative networks that targeted reproduction of goat (*Capra hircus*). *BMC genomics*, 26(1), 250.

Zeng L, et al. (2025) miR-32533 Reduces Cognitive Impairment and Amyloid- β Overload by Targeting CREB5-Mediated Signaling Pathways in Alzheimer's Disease. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 12(10), e2409986.

Vattathil SM, et al. (2025) Mapping the microRNA landscape in the older adult brain and its genetic contribution to neuropsychiatric conditions. *Nature aging*, 5(2), 306.

Mai W, et al. (2025) Expression regulation network in papillae of sea cucumbers: Whole-transcriptome and DNA methylation datasets. *Scientific data*, 12(1), 1231.

Yu T, et al. (2025) Evolution of KoRV-A transcriptional silencing in wild koalas. *Cell*, 188(8), 2081.