

Resource Summary Report

Generated by [PRECISE-TBI](#) on Aug 2, 2026

[mirEX](#)

RRID:SCR_006060

Type: Tool

Proper Citation

mirEX (RRID:SCR_006060)

Resource Information

URL: <http://comgen.pl/mirex/>

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Description: mirEX is a comprehensive platform for comparative analysis of primary microRNA expression data. quantitative real-time PCR-based gene expression profiles are stored in a universal and expandable database scheme and wrapped by an intuitive user-friendly interface. A new way of accessing gene expression data in mirEX includes a simple mouse operated querying system and dynamic graphs for data mining analyses. In contrast to other publicly available databases, the mirEX interface allows a simultaneous comparison of expression levels between various microRNA genes in diverse organs and developmental stages. Currently, mirEX integrates information about the expression profile of 190 Arabidopsis thaliana pri-miRNAs in seven different developmental stages: seeds, seedlings and various organs of mature plants. Additionally, by providing RNA structural models, publicly available deep sequencing results, experimental procedure details and careful selection of auxiliary data in the form of web links, mirEX can function as a one-stop solution for Arabidopsis microRNA information. This database aims to be useful to anyone investigating the role of microRNAs in shaping plant development, organ formation and response to different biotic and abiotic stresses. To start exploring the database just press the "Browse Atlas" button or search for a particular microRNA record by typing at least two numbers from its ID in the window.

Abbreviations: mirEX

Resource Type: atlas, production service resource, data or information resource, database, service resource, data analysis service, analysis service resource

Defining Citation: [PMID:22013167](#)

Keywords: microrna gene expression, microrna, gene expression, gene, organ, developmental stage, plant, seed, seedling, mature plant, pri-mirna, biotic stress, abiotic stress, organ formation, primer, cdna

Funding: Foundation for Polish Science ;
European Union ;
Regional Development Fund MPD 2010/3;
Polish Ministry of Science and Higher Education 3011/B/P01/2009/37

Resource Name: mirEX

Resource ID: SCR_006060

Alternate IDs: nlx_151462

Alternate URLs: <http://bioinfo.amu.edu.pl/mirex>

Record Creation Time: 20220129T080234+0000

Record Last Update: 20260803T040428+0000

Ratings and Alerts

No rating or validation information has been found for mirEX.

No alerts have been found for mirEX.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 10 mentions in open access literature.

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

Bielewicz D, et al. (2023) Hyponastic Leaves 1 Interacts with RNA Pol II to Ensure Proper Transcription of MicroRNA Genes. *Plant & cell physiology*, 64(6), 571.

Pianfetti E, et al. (2023) MiREx: mRNA levels prediction from gene sequence and miRNA target knowledge. *BMC bioinformatics*, 24(1), 443.

Niarchou M, et al. (2022) Genome-wide association study of musical beat synchronization demonstrates high polygenicity. *Nature human behaviour*, 6(9), 1292.

De?e?ko K, et al. (2022) MicroRNA biogenesis and activity in plant cell dedifferentiation stimulated by cell wall removal. *BMC plant biology*, 22(1), 9.

Byambatsogt G, et al. (2020) Guitar Chord Sensing and Recognition Using Multi-Task Learning and Physical Data Augmentation with Robotics. *Sensors (Basel, Switzerland)*, 20(21).

Pack E, et al. (2020) Quantification of zearalenone and ?-zearalenol in swine liver and reproductive tissues using GC-MS. *Toxicon*: X, 8, 100058.

Sarmiento A, et al. (2019) Centroid-Based Clustering with α -Divergences. Entropy (Basel, Switzerland), 21(2).

Szyrajew K, et al. (2017) MicroRNAs Are Intensively Regulated during Induction of Somatic Embryogenesis in Arabidopsis. Frontiers in plant science, 8, 18.

Wu C, et al. (2014) ToppMiR: ranking microRNAs and their mRNA targets based on biological functions and context. Nucleic acids research, 42(Web Server issue), W107.

Meng Y, et al. (2012) Expression-based functional investigation of the organ-specific microRNAs in Arabidopsis. PloS one, 7(11), e50870.