

Resource Summary Report

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GRASSIUS

RRID:SCR_012999

Type: Tool

Proper Citation

GRASSIUS (RRID:SCR_012999)

Resource Information

URL: <http://grassius.org/>

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Description: A public resource composed of a collection of databases, computational and experimental resources that relate to the control of gene expression in the grasses, and their relationship with agronomic traits. As knowledge on the interactions of transcription factors (TFs) and cis-regulatory elements in the promoters of the genes that they regulate continues to accumulate, the information is acquired by GRASSIUS, either through contributions by the community, or by literature analysis. The overarching objective of GRASSIUS is to provide a one-stop resource that will facilitate research and communication within the plant community with regards to genome-wide regulation of gene expression processes.

Abbreviations: GRASSIUS

Synonyms: Grass Regulatory Information Server

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

Defining Citation: [PMID:18987217](#)

Keywords: transcription factor, coregulator, promoter sequence, transcription factor orf clone, blast, genome browser

Funding: NSF

Availability: Free

Resource Name: GRASSIUS

Resource ID: SCR_012999

Alternate IDs: OMICS_00555

Record Creation Time: 20220129T080313+0000

Record Last Update: 20260808T190006+0000

Ratings and Alerts

No rating or validation information has been found for GRASSIUS.

No alerts have been found for GRASSIUS.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 32 mentions in open access literature.

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

Aragón-Raygoza A, et al. (2025) Diverse roles of ethylene in maize growth and development, and its importance in shaping plant architecture. *Journal of experimental botany*, 76(7), 1854.

Bertolini E, et al. (2025) Regulatory variation controlling architectural pleiotropy in maize. *Nature communications*, 16(1), 2140.

Mas-Ud MA, et al. (2025) Comprehensive genome-wide identification and analysis of MYB transcription factors related to abiotic and biotic stress regulation in rice. *Scientific reports*, 15(1), 44024.

Zhou S, et al. (2024) OsbHLH5 Synergically Regulates Phenolamide and Diterpenoid Phytoalexins Involved in the Defense of Rice Against Pathogens. *International journal of molecular sciences*, 25(22).

Chu YH, et al. (2024) Molecular mechanisms underlying gene regulatory variation of maize metabolic traits. *The Plant cell*, 36(9), 3709.

Xu H, et al. (2024) Identification of key genes for triacylglycerol biosynthesis and storage in herbaceous peony (*Paeonia lactiflora* Pall.) seeds based on full-length transcriptome. *BMC genomics*, 25(1), 601.

Borba AR, et al. (2023) Compartmentation of photosynthesis gene expression in C4 maize depends on time of day. *Plant physiology*, 193(4), 2306.

Xuhui L, et al. (2022) Full-length transcriptome analysis of maize root tips reveals the molecular mechanism of cold stress during the seedling stage. *BMC plant biology*, 22(1), 398.

López-González C, et al. (2022) Analysis of Global Gene Expression in Maize (*Zea mays*) Vegetative and Reproductive Tissues That Differ in Accumulation of Starch and Sucrose. *Plants* (Basel, Switzerland), 11(3).

de Souza Moraes T, et al. (2022) The TCP transcription factor HvTB2 heterodimerizes with VRS5 and controls spike architecture in barley. *Plant reproduction*, 35(3), 205.

Han Y, et al. (2021) Identification and evolution analysis of the JAZ gene family in maize. *BMC genomics*, 22(1), 256.

Nie Z, et al. (2021) Combined Transcriptome and Proteome Analysis of Maize (*Zea mays* L.) Reveals A Complementary Profile in Response to Phosphate Deficiency. *Current issues in molecular biology*, 43(2), 1142.

Ge M, et al. (2020) The NIN-like protein 5 (ZmNLP5) transcription factor is involved in modulating the nitrogen response in maize. *The Plant journal : for cell and molecular biology*, 102(2), 353.

Simões MS, et al. (2020) Differentiation of Tracheary Elements in Sugarcane Suspension Cells Involves Changes in Secondary Wall Deposition and Extensive Transcriptional Reprogramming. *Frontiers in plant science*, 11, 617020.

Gomez-Cano F, et al. (2020) CamRegBase: a gene regulation database for the biofuel crop, *Camelina sativa*. *Database : the journal of biological databases and curation*, 2020.

Martin RC, et al. (2020) Transcriptome analysis of responses in *Brachypodium distachyon* overexpressing the BdbZIP26 transcription factor. *BMC plant biology*, 20(1), 174.

Souza GM, et al. (2019) Assembly of the 373k gene space of the polyploid sugarcane genome reveals reservoirs of functional diversity in the world's leading biomass crop. *GigaScience*, 8(12).

Li W, et al. (2019) Effect of water-deficit on tassel development in maize. *Gene*, 681, 86.

Knauer S, et al. (2019) A high-resolution gene expression atlas links dedicated meristem genes to key architectural traits. *Genome research*, 29(12), 1962.

Kandel R, et al. (2018) Potentials, Challenges, and Genetic and Genomic Resources for Sugarcane Biomass Improvement. *Frontiers in plant science*, 9, 151.