

Resource Summary Report

Generated by [SPARC SAWG](#) on Jul 28, 2026

SeedGenes

RRID:SCR_013323

Type: Tool

Proper Citation

SeedGenes (RRID:SCR_013323)

Resource Information

URL: <http://www.seedgenes.org/>

Proper Citation: SeedGenes (RRID:SCR_013323)

Description: A database of genes that give a seed phenotype when disrupted by mutation. The long-term goal of this project is to establish a comprehensive dataset of essential genes. The updated project database (December, 2007) presents information on 358 genes and 605 mutants. More than 60% of these mutants have been analyzed in the Meinke laboratory (Stillwater, OK).

Synonyms: SeedGenes

Resource Type: database, data or information resource

Resource Name: SeedGenes

Resource ID: SCR_013323

Alternate IDs: nif-0000-03450

Record Creation Time: 20220129T080315+0000

Record Last Update: 20260725T191206+0000

Ratings and Alerts

No rating or validation information has been found for SeedGenes.

No alerts have been found for SeedGenes.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 27 mentions in open access literature.

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

Xu JJ, et al. (2021) A unique flavoenzyme operates in ubiquinone biosynthesis in photosynthesis-related eukaryotes. *Science advances*, 7(50), eabl3594.

Su PH, et al. (2019) Two Arabidopsis Chloroplast GrpE Homologues Exhibit Distinct Biological Activities and Can Form Homo- and Hetero-Oligomers. *Frontiers in plant science*, 10, 1719.

Andriotis VME, et al. (2019) The plastidial pentose phosphate pathway is essential for postglobular embryo development in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, 116(30), 15297.

Ke X, et al. (2017) Functional divergence of chloroplast Cpn60? subunits during Arabidopsis embryo development. *PLoS genetics*, 13(9), e1007036.

Muñoz-Nortes T, et al. (2017) Suitability of two distinct approaches for the high-throughput study of the post-embryonic effects of embryo-lethal mutations in Arabidopsis. *Scientific reports*, 7(1), 17010.

Colombo M, et al. (2016) GUN1, a Jack-Of-All-Trades in Chloroplast Protein Homeostasis and Signaling. *Frontiers in plant science*, 7, 1427.

Oellrich A, et al. (2015) An ontology approach to comparative phenomics in plants. *Plant methods*, 11, 10.

Drost HG, et al. (2015) Evidence for active maintenance of phylotranscriptomic hourglass patterns in animal and plant embryogenesis. *Molecular biology and evolution*, 32(5), 1221.

Wickramasuriya AM, et al. (2015) Global scale transcriptome analysis of Arabidopsis embryogenesis in vitro. *BMC genomics*, 16(1), 301.

Iglesias FM, et al. (2015) The arabidopsis DNA polymerase ϵ has a role in the deposition of transcriptionally active epigenetic marks, development and flowering. *PLoS genetics*, 11(2), e1004975.

Gupta Y, et al. (2015) De novo assembly and characterization of transcriptomes of early-stage fruit from two genotypes of *Annona squamosa* L. with contrast in seed number. *BMC genomics*, 16(1), 86.

López-Bucio JS, et al. (2014) Arabidopsis thaliana mitogen-activated protein kinase 6 is involved in seed formation and modulation of primary and lateral root development. *Journal of experimental botany*, 65(1), 169.

Jeon Y, et al. (2014) DER containing two consecutive GTP-binding domains plays an essential role in chloroplast ribosomal RNA processing and ribosome biogenesis in higher plants. *Journal of experimental botany*, 65(1), 117.

Tiller N, et al. (2014) The translational apparatus of plastids and its role in plant development. *Molecular plant*, 7(7), 1105.

Li M, et al. (2014) Morphological and proteomic analysis reveal the role of pistil under pollination in *Liriodendron chinense* (Hemsl.) Sarg. *PloS one*, 9(6), e99970.

Savage LJ, et al. (2013) Analysis of essential *Arabidopsis* nuclear genes encoding plastid-targeted proteins. *PloS one*, 8(9), e73291.

Lloyd J, et al. (2012) A comprehensive dataset of genes with a loss-of-function mutant phenotype in *Arabidopsis*. *Plant physiology*, 158(3), 1115.

Tang X, et al. (2012) Synergistic repression of the embryonic programme by SET DOMAIN GROUP 8 and EMBRYONIC FLOWER 2 in *Arabidopsis* seedlings. *Journal of experimental botany*, 63(3), 1391.

Olinares PD, et al. (2011) The Clp protease system; a central component of the chloroplast protease network. *Biochimica et biophysica acta*, 1807(8), 999.

Muralla R, et al. (2011) Molecular foundations of reproductive lethality in *Arabidopsis thaliana*. *PloS one*, 6(12), e28398.