

Resource Summary Report

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Plant Organelles Database

RRID:SCR_006520

Type: Tool

Proper Citation

Plant Organelles Database (RRID:SCR_006520)

Resource Information

URL: <http://podb.nibb.ac.jp/Organelhome/>

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Description: Database of images, movies, and protocols to promote a comprehensive understanding of plant organelle dynamics, including organelle function, biogenesis, differentiation, movement, and interactions with other organelles. It consists of 5 individual parts, "Perceptive Organelles Database", "The Organelles Movie Database", "The Organelome Database", "The Functional Analysis Database", and "External Links to other databases and Web pages". All the data and protocols in "The Organelle Movie Database", "The Organelome Database" and "The Functional Analysis Database" are populated by direct submission of experimentally determined data from plant researchers. Your active contributions by submission of data and protocols to our database would also be appreciated. * Perceptive Organelles Database: This database contains images and movies of organelles in various tissues during different developmental stages in response to environmental stimuli. * Organelles Movie Database: This database contains time-lapse images, Z slices and projection images of organelles in various tissues during different developmental stages, visualized using fluorescent and non-fluorescent probes. * Organelome Database: This database contains images for cellular structures that are composed of organelle images in various tissues during different developmental stages, visualized with fluorescent and non-fluorescent probes. * Functional Analysis Database: This database is a collection of protocols for plant organelle research. * External Links: Access to biological databases.

Abbreviations: PODB, PODB2

Synonyms: Plant Organelles Database 2

Resource Type: database, data or information resource, service resource, image collection, narrative resource, storage service resource, experimental protocol, data repository, video resource

Defining Citation: [PMID:21115470](#), [PMID:19755394](#), [PMID:17932059](#)

Keywords: organelle, developmental stage, environmental stimuli, development, environment, stimulus, biochemical assay, nucleic acid, protein, gene expression, genome mapping, histology, tissue isolation, organelle isolation, plant growth, maintenance, visualization, observation, plant organelle, movement, division, subcellular positioning, behavior, external stimuli, green fluorescent protein, biogenesis, differentiation, interaction

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Japan Society for the Promotion of Science 228052

Availability: Free for scientific and educational use provided the contributor and the Organellome Database and the Organelles Movie Database are properly credited. If you wish to use commercially, Please contact the contributors of the corresponding images and movies for permission.

Resource Name: Plant Organelles Database

Resource ID: SCR_006520

Alternate IDs: nlx_151998, r3d100011300

Alternate URLs: <https://doi.org/10.17616/R3933R>

Record Creation Time: 20220129T080236+0000

Record Last Update: 20260810T040424+0000

Ratings and Alerts

No rating or validation information has been found for Plant Organelles Database.

No alerts have been found for Plant Organelles Database.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 7 mentions in open access literature.

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

Perello C, et al. (2016) Differential Subplastidial Localization and Turnover of Enzymes Involved in Isoprenoid Biosynthesis in Chloroplasts. PloS one, 11(2), e0150539.

Higaki T, et al. (2013) LIPS database with LIPService: a microscopic image database of intracellular structures in Arabidopsis guard cells. BMC plant biology, 13, 81.

Araújo WL, et al. (2012) Functional genomics tools applied to plant metabolism: a survey on plant respiration, its connections and the annotation of complex gene functions. *Frontiers in plant science*, 3, 210.

Higaki T, et al. (2012) Statistical organelle dissection of Arabidopsis guard cells using image database LIPS. *Scientific reports*, 2, 405.

Mochida K, et al. (2011) Advances in omics and bioinformatics tools for systems analyses of plant functions. *Plant & cell physiology*, 52(12), 2017.

Mano S, et al. (2011) The Plant Organelles Database 2 (PODB2): an updated resource containing movie data of plant organelle dynamics. *Plant & cell physiology*, 52(2), 244.

Jorrín-Novo JV, et al. (2009) Plant proteomics update (2007-2008): Second-generation proteomic techniques, an appropriate experimental design, and data analysis to fulfill MIAPE standards, increase plant proteome coverage and expand biological knowledge. *Journal of proteomics*, 72(3), 285.