Resource Summary Report

Generated by NIF on Aug 31, 2026

PPDB: Plant Proteomics Database

RRID:SCR_007872
Type: Tool

Proper Citation

PPDB: Plant Proteomics Database (RRID:SCR_007872)

Resource Information

URL: http://ppdb.tc.cornell.edu/

Proper Citation: PPDB: Plant Proteomics Database (RRID:SCR_007872)

Description: A Plant Proteome DataBase for Arabidopsis thaliana and maize (Zea mays). The PPDB stores experimental data from in-house proteome and mass spectrometry analysis, curated information about protein function, protein properties and subcellular localization. Importantly, proteins are particularly curated for possible (intra) plastid location and their plastid function. Protein accessions identified in published Arabidopsis (and other Brassicacea) proteomics papers are cross-referenced to rapidly determine previous experimental identification by mass spectrometry. All protein-encoding gene models in the Arabidopsis nuclear and organellar genomes, as assembled by TAIR, as well as all maize EST assemblies (ZmGI) as assembled by DFCI Maize Gene Index project. These are all uploaded in PPDB and are linked to each other via a BLAST alignment. Thus every predicted protein in both species can be searched for experimental and other information (even if not experimentally identified).

Abbreviations: PPDB

Synonyms: Plant Proteomics Database

Resource Type: data or information resource, database

Keywords: FASEB list

Resource Name: PPDB: Plant Proteomics Database

Resource ID: SCR_007872

Record Creation Time: 20220129T080244+0000

Record Last Update: 20260829T183010+0000

Ratings and Alerts

No rating or validation information has been found for PPDB: Plant Proteomics Database.

No alerts have been found for PPDB: Plant Proteomics Database.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 73 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF .

Scholz P, et al. (2026) Arabidopsis root lipid droplets are hubs for membrane homeostasis under heat stress, and triterpenoid synthesis and storage. The New phytologist, 249(2), 892.

Wang P, et al. (2026) Carotenoid aggregates negatively impact chlorophyll levels and disrupt chloroplast development in peaches. Molecular horticulture, 6(1).

Yamashita S, et al. (2025) Costs of photosynthesis and cellular remodeling in trophic transitions of the unicellular red alga Galdieria partita. Communications biology, 8(1), 891.

Tan T, et al. (2025) A PPR Protein RFCD1 Affects Chloroplast Gene Expression and Chloroplast Development in Arabidopsis. Plants (Basel, Switzerland), 14(6).

Ying S, et al. (2025) Get the ball rolling: update and perspective on the role of chloroplast plastoglobule-associated proteins under abiotic stress. Journal of experimental botany, 76(17), 4735.

Fasani E, et al. (2025) ABC1K2 is involved in stress response and secondary metabolism during seed development in Arabidopsis thaliana. Plant cell reports, 44(11), 249.

Collombat J, et al. (2025) Arabidopsis conditional photosynthesis mutants abc1k1 and var2 accumulate partially processed thylakoid preproteins and are defective in chloroplast biogenesis. Communications biology, 8(1), 111.

Scholz P, et al. (2025) Plasticity of the Arabidopsis leaf lipidome and proteome in response to pathogen infection and heat stress. Plant physiology, 197(2).

Liu H, et al. (2025) Maize big embryo 6 reveals roles of plastidial and cytosolic prephenate aminotransferases in seed and plant development. The Plant cell, 37(6).

Rolo D, et al. (2024) CO-EXPRESSED WITH PSI ASSEMBLY1 (CEPA1) is a photosystem I assembly factor in Arabidopsis. The Plant cell, 36(10), 4179.

Chao H, et al. (2023) Integrating omics databases for enhanced crop breeding. Journal of integrative bioinformatics, 20(4).

Yang L, et al. (2023) From single- to multi-omics: future research trends in medicinal plants. Briefings in bioinformatics, 24(1).

Deng CH, et al. (2023) Genotype and phenotype data standardization, utilization and integration in the big data era for agricultural sciences. Database : the journal of biological databases and curation, 2023.

Bhattacharya O, et al. (2023) The tomato chloroplast stromal proteome compendium elucidated by leveraging a plastid protein-localization prediction Atlas. Frontiers in plant science, 14, 1020275.

Gao LL, et al. (2023) Chloroplast proteostasis: A story of birth, life, and death. Plant communications, 4(1), 100424.

Rashid M, et al. (2023) FungiProteomeDB: a database for the molecular weight and isoelectric points of the fungal proteomes. Database : the journal of biological databases and curation, 2023.

Rei Liao JY, et al. (2022) Proteomics, phylogenetics, and coexpression analyses indicate novel interactions in the plastid CLP chaperone-protease system. The Journal of biological chemistry, 298(3), 101609.

Chen W, et al. (2022) Stromal Protein Chloroplast Development and Biogenesis1 Is Essential for Chloroplast Development and Biogenesis in Arabidopsis thaliana. Frontiers in plant science, 13, 815859.

Rakkammal K, et al. (2022) Conventional and Omics Approaches for Understanding the Abiotic Stress Response in Cereal Crops-An Updated Overview. Plants (Basel, Switzerland), 11(21).

Smythers AL, et al. (2021) Mapping the plant proteome: tools for surveying coordinating pathways. Emerging topics in life sciences, 5(2), 203.