

Resource Summary Report

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Plant Metabolic Network

RRID:SCR_002888

Type: Tool

Proper Citation

Plant Metabolic Network (RRID:SCR_002888)

Resource Information

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

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Description: Collaborative project to bring together biochemical pathway databases and research communities focused on plant metabolism. Used to build broad network of plant metabolic pathway databases. Central feature of PMN is PlantCyc, comprehensive plant biochemical pathway database, containing curated information from literature and computational analyses about genes, enzymes, compounds, reactions, and pathways involved in primary and secondary metabolism.

Synonyms: Plant Biochemical Pathway Databases

Resource Type: data or information resource, portal, project portal

Keywords: e. coli, gene, arabidopsis, barley, coffee, database, genome, grass, homolog, maize, medicago, oats, pathway, pepper, plant, potato, rice, rye, sorghum, species, taxonomy, tomato, wheat, ontology

Resource Name: Plant Metabolic Network

Resource ID: SCR_002888

Alternate IDs: nif-0000-25602, SCR_003778, nlx_15806

Record Creation Time: 20220129T080215+0000

Record Last Update: 20260804T043153+0000

Ratings and Alerts

No rating or validation information has been found for Plant Metabolic Network.

No alerts have been found for Plant Metabolic Network.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 149 mentions in open access literature.

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

Kreuzer I, et al. (2025) Venus flytraps' metabolome analysis discloses the metabolic fate of prey animal foodstock. *The Plant journal : for cell and molecular biology*, 123(3), e70391.

Bruno L, et al. (2025) Metabolomic Insights into the Allelopathic Effects of *Ailanthus altissima* (Mill.) Swingle Volatile Organic Compounds on the Germination Process of *Bidens pilosa* (L.). *Metabolites*, 15(1).

Van K, et al. (2025) Network analysis combined with genome-wide association study helps identification of genes related to amino acid contents in soybean. *BMC genomics*, 26(1), 21.

Secomandi E, et al. (2025) Biochemical, photosynthetic and metabolomics insights of single and combined effects of salinity, heat, cold and drought in *Arabidopsis*. *Physiologia plantarum*, 177(1), e70062.

Uy ALT, et al. (2023) The Carbon Flow Shifts from Primary to Secondary Metabolism during Xylem Vessel Cell Differentiation in *Arabidopsis thaliana*. *Plant & cell physiology*, 64(12), 1563.

Singh DP, et al. (2023) Untargeted Metabolomics of *Alternaria solani*-Challenged Wild Tomato Species *Solanum cheesmaniae* Revealed Key Metabolite Biomarkers and Insight into Altered Metabolic Pathways. *Metabolites*, 13(5).

Rouphael Y, et al. (2023) Copper boosts the biostimulant activity of a vegetal-derived protein hydrolysate in basil: morpho-physiological and metabolomics insights. *Frontiers in plant science*, 14, 1235686.

Perez-Matas E, et al. (2023) Exploring the Interplay between Metabolic Pathways and Taxane Production in Elicited *Taxus baccata* Cell Suspensions. *Plants (Basel, Switzerland)*, 12(14).

Singh DP, et al. (2023) Metabolomics of early blight (*Alternaria solani*) susceptible tomato (*Solanum lycopersicum*) unfolds key biomarker metabolites and involved metabolic pathways. *Scientific reports*, 13(1), 21023.

Naika MBN, et al. (2022) Exploring the medicinally important secondary metabolites landscape through the lens of transcriptome data in fenugreek (*Trigonella foenum graecum* L.). *Scientific reports*, 12(1), 13534.

Tan YC, et al. (2022) Bioinformatics approaches and applications in plant biotechnology. Journal, genetic engineering & biotechnology, 20(1), 106.

Foerster H, et al. (2021) Metabolic networks of the Nicotiana genus in the spotlight: content, progress and outlook. Briefings in bioinformatics, 22(3).

Squeri C, et al. (2021) Gas exchange, vine performance and modulation of secondary metabolism in *Vitis vinifera* L. cv Barbera following long-term nitrogen deficit. Planta, 253(3), 73.

Zhao K, et al. (2021) A novel bivalent chromatin associates with rapid induction of camalexin biosynthesis genes in response to a pathogen signal in *Arabidopsis*. eLife, 10.

Vo KTX, et al. (2021) Proteomics and Metabolomics Studies on the Biotic Stress Responses of Rice: an Update. Rice (New York, N.Y.), 14(1), 30.

Fei X, et al. (2021) Transcriptome and Metabolome Dynamics Explain Aroma Differences between Green and Red Prickly Ash Fruit. Foods (Basel, Switzerland), 10(2).

Ceccarelli AV, et al. (2021) Foliar Application of Different Vegetal-Derived Protein Hydrolysates Distinctively Modulates Tomato Root Development and Metabolism. Plants (Basel, Switzerland), 10(2).

Sorrentino M, et al. (2021) Seed Priming With Protein Hydrolysates Improves *Arabidopsis* Growth and Stress Tolerance to Abiotic Stresses. Frontiers in plant science, 12, 626301.

Allwood JW, et al. (2021) Assessing the impact of nitrogen supplementation in oats across multiple growth locations and years with targeted phenotyping and high-resolution metabolite profiling approaches. Food chemistry, 355, 129585.

Qin G, et al. (2020) Diversity of metabolite accumulation patterns in inner and outer seed coats of pomegranate: exploring their relationship with genetic mechanisms of seed coat development. Horticulture research, 7, 10.