

Resource Summary Report

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Dictyostelium discoideum genome database

RRID:SCR_006643

Type: Tool

Proper Citation

Dictyostelium discoideum genome database (RRID:SCR_006643)

Resource Information

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

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Description: Model organism database for the social amoeba *Dictyostelium discoideum* that provides the biomedical research community with integrated, high quality data and tools for *Dictyostelium discoideum* and related species. dictyBase houses the complete genome sequence, ESTs, and the entire body of literature relevant to *Dictyostelium*. This information is curated to provide accurate gene models and functional annotations, with the goal of fully annotating the genome to provide a "reference genome" in the Amoebozoa clade. They highlight several new features in the present update: (i) new annotations; (ii) improved interface with web 2.0 functionality; (iii) the initial steps towards a genome portal for the Amoebozoa; (iv) ortholog display; and (v) the complete integration of the Dicty Stock Center with dictyBase. The Dicty Stock Center currently holds over 1500 strains targeting over 930 different genes. There are over 100 different distinct amoebozoan species. In addition, the collection contains nearly 600 plasmids and other materials such as antibodies and cDNA libraries. The strain collection includes: * strain catalog * natural isolates * MNNG chemical mutants * tester strains for parasexual genetics * auxotroph strains * null mutants * GFP-labeled strains for cell biology * plasmid catalog The Dicty Stock Center can accept *Dictyostelium* strains, plasmids, and other materials relevant for research using *Dictyostelium* such as antibodies and cDNA or genomic libraries.

Abbreviations: dictyBase, dictyBase gene name, dictyBase REF, DictyBase

Synonyms: dictyBase gene name, dictyBase REF, Dicty, dictyBase, Dictyostelium discoideum

Resource Type: biomaterial supply resource, material resource, organism supplier

Defining Citation: [PMID:23172289](#), [PMID:21087999](#), [PMID:18974179](#), [PMID:14681427](#), [PMID:16381903](#)

Keywords: genome, sequence, est, literature, gene model, functional annotation, reference genome, gene, antibody, cdna, bacteria, dictyostelium discoideum, dictyostelium purpureum, dictyostelium fasciculatum, polysphondylium pallidum, bio.tools

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Resource Name: Dictyostelium discoideum genome database

Resource ID: SCR_006643

Alternate IDs: biotools:dictybase, nif-0000-20974, SCR_008149, nif-0000-02751, OMICS_03158

Alternate URLs: <https://bio.tools/dictybase>

Old URLs: <http://genome.imb-jena.de/dictyostelium/>

Record Creation Time: 20220129T080237+0000

Record Last Update: 20260905T132558+0000

Ratings and Alerts

No rating or validation information has been found for Dictyostelium discoideum genome database.

No alerts have been found for Dictyostelium discoideum genome database.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 315 mentions in open access literature.

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

Broekema NM, et al. (2026) The Use of Free-Living Amoeba in Treating Bacterial Infections: Thermotolerant Dictyostelids Are Avirulent and Do Not Cause Keratitis in Mice. Investigative ophthalmology & visual science, 67(2), 7.

Valdivia DI, et al. (2026) Regulation of tRNA expression during the social cycle of the amoeba Dictyostelium discoideum. BMC molecular and cell biology, 27(1).

Vines JH, et al. (2026) PIKfyve is required for efficient phagosomal Rab7 acquisition and the delivery and fusion of early macropinosomes to phagosomes. Journal of cell science,

139(8).

Fierro Morales JC, et al. (2025) Reduced cell-substrate adhesion formation promotes cell migration in Dictyostelium. *Molecular biology of the cell*, 36(8), ar98.

Fierro Morales JC, et al. (2025) Differential PaxillinB dynamics at Dictyostelium cell-substrate adhesions. *bioRxiv : the preprint server for biology*.

Fierro Morales JC, et al. (2025) Differential PaxillinB dynamics at Dictyostelium cell-substrate adhesions. *Biology open*, 14(10).

Hathi P, et al. (2025) Extracellular adenosine deamination primes tip organizer development in Dictyostelium. *eLife*, 14.

Banu S, et al. (2025) Simulated Heat Waves Affect Cell Fate and Fitness in the Social Amoeba Dictyostelium discoideum. *Microbial ecology*, 88(1), 21.

Kim GD, et al. (2025) Pools of Independently Cycling Inositol Phosphates Revealed by Pulse Labeling with ^{18}O -Water. *Journal of the American Chemical Society*, 147(21), 17626.

Thomason PA, et al. (2024) Biogenesis of lysosome-related organelles complex-2 is an evolutionarily ancient proto-coatomer complex. *Current biology : CB*, 34(15), 3564.

Fierro Morales JC, et al. (2024) Reduced PaxillinB localization to cell-substrate adhesions promotes cell migration in Dictyostelium. *bioRxiv : the preprint server for biology*.

Kappelt F, et al. (2024) LPIN2 is the phosphatase dominating the penultimate step of neutral lipid biosynthesis in Dictyostelium. *microPublication biology*, 2024.

Aoki MM, et al. (2024) Biochemical characterization of a unique cytokinin and nucleotide phosphoribohydrolase Lonely Guy protein from Dictyostelium discoideum. *Biochemistry and biophysics reports*, 39, 101756.

Sheikh S, et al. (2024) The Acrasis kona genome and developmental transcriptomes reveal deep origins of eukaryotic multicellular pathways. *Nature communications*, 15(1), 10197.

Allan CY, et al. (2024) Polycystin-2 Mediated Calcium Signalling in the Dictyostelium Model for Autosomal Dominant Polycystic Kidney Disease. *Cells*, 13(7).

Listian SA, et al. (2024) Complex sphingolipid profiling and identification of an inositol-phosphorylceramide synthase in Dictyostelium discoideum. *iScience*, 27(9), 110609.

Medina J, et al. (2024) In the social amoeba Dictyostelium discoideum, shortened stalks may limit obligate cheater success even when exploitable partners are available. *PeerJ*, 12, e17118.

Edelbroek B, et al. (2024) Multi-omics analysis of aggregative multicellularity. *iScience*, 27(9), 110659.

Edelbroek B, et al. (2024) Chromosome-level genome assembly and annotation of the social amoeba Dictyostelium firmibasis. *Scientific data*, 11(1), 678.

Vines JH, et al. (2023) A PI(3,5)P₂ reporter reveals PIKfyve activity and dynamics on macropinosomes and phagosomes. *The Journal of cell biology*, 222(9).