

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: organism supplier, biomaterial supply resource, material resource

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: nif-0000-20974, biotools:dictybase, 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: 20260729T044138+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 306 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

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. Biology open, 14(10).

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

- 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.
- Fierro Morales JC, et al. (2024) Reduced PaxillinB localization to cell-substrate adhesions promotes cell migration in *Dictyostelium*. *bioRxiv : the preprint server for biology*.
- 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.
- 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).
- 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) Chromosome-level genome assembly and annotation of the social amoeba *Dictyostelium firmibasis*. *Scientific data*, 11(1), 678.
- Edelbroek B, et al. (2024) Multi-omics analysis of aggregative multicellularity. *iScience*, 27(9), 110659.
- Listian SA, et al. (2024) Complex sphingolipid profiling and identification of an inositol-phosphorylceramide synthase in *Dictyostelium discoideum*. *iScience*, 27(9), 110609.
- 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).
- Lutton JE, et al. (2023) Formation and closure of macropinocytic cups in *Dictyostelium*. *Current biology : CB*, 33(15), 3083.
- H??sler D, et al. (2023) The large GTPase Sey1/atlastin mediates lipid droplet- and FadL-dependent intracellular fatty acid metabolism of *Legionella pneumophila*. *eLife*, 12.
- Forbes G, et al. (2022) Interactome and evolutionary conservation of Dictyostelid small GTPases and their direct regulators. *Small GTPases*, 13(1), 239.
- Boland AW, et al. (2022) Oxygen-dependent regulation of E3(SCF)ubiquitin ligases and a Skp1-associated JmjD6 homolog in development of the social amoeba *Dictyostelium*. *The Journal of biological chemistry*, 298(9), 102305.

Rijal R, et al. (2022) Dictyostelium discoideum cells retain nutrients when the cells are about to outgrow their food source. Journal of cell science, 135(18).