

# Resource Summary Report

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## InParanoid: Eukaryotic Ortholog Groups

RRID:SCR\_006801

Type: Tool

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### Proper Citation

InParanoid: Eukaryotic Ortholog Groups (RRID:SCR\_006801)

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### Resource Information

**URL:** <http://inparanoid.sbc.su.se/cgi-bin/index.cgi>

**Proper Citation:** InParanoid: Eukaryotic Ortholog Groups (RRID:SCR\_006801)

**Description:** Collection of pairwise comparisons between 100 whole genomes generated by a fully automatic method for finding orthologs and in-paralogs between TWO species. Ortholog clusters in the InParanoid are seeded with a two-way best pairwise match, after which an algorithm for adding in-paralogs is applied. The method bypasses multiple alignments and phylogenetic trees, which can be slow and error-prone steps in classical ortholog detection. Still, it robustly detects complex orthologous relationships and assigns confidence values for in-paralogs. The original data sets can be downloaded.

**Abbreviations:** InParanoid

**Synonyms:** Inparanoid eukaryotic ortholog database

**Resource Type:** service resource, data analysis service, data or information resource, database, production service resource, analysis service resource

**Defining Citation:** [PMID:19892828](#), [PMID:18055500](#), [PMID:15608241](#), [PMID:11743721](#)

**Keywords:** protein, ortholog, genome, drosophila pseudoobscura, duplication, entamoeba histolytica, escherichia coli, eukaryotic, gasterosteus aculeatus, gene, aedes aegypti, apis mellifera, bos taurus, caenorhabditis remanei, candida glabrata, canis familiaris, ciona intestinalis, cryptococcus neoformans, debaromyces hansenii, dictyostelium discoideum, genomic, homolog, inparalog, kluyveromyces lactis, macaca mulatta, monodelphis domestica, orthology, oryza sativa, outparalog, proteome, tetraodon nigroviridis, xenopus tropicalis, blast, proteome, ortholog cluster, cluster, in-paralog, paralog, automatic clustering, genome comparison, FASEB list

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Karolinska Institutet; Stockholm; Sweden ;  
Pfizer Corporation

**Availability:** Acknowledgement requested

**Resource Name:** InParanoid: Eukaryotic Ortholog Groups

**Resource ID:** SCR\_006801

**Alternate IDs:** nif-0000-03024

**Old URLs:** <http://www.cgb.ki.se/inparanoid/>

**Record Creation Time:** 20220129T080238+0000

**Record Last Update:** 20260731T042727+0000

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## Ratings and Alerts

No rating or validation information has been found for InParanoid: Eukaryotic Ortholog Groups.

No alerts have been found for InParanoid: Eukaryotic Ortholog Groups.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 186 mentions in open access literature.

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

Feng B, et al. (2025) Unique trajectory of gene family evolution from genomic analysis of nearly all known species in an ancient yeast lineage. *Molecular systems biology*, 21(8), 1066.

Swapna LS, et al. (2024) ToxoNet: A high confidence map of protein-protein interactions in *Toxoplasma gondii*. *PLoS computational biology*, 20(6), e1012208.

Feng B, et al. (2024) Unique trajectory of gene family evolution from genomic analysis of nearly all known species in an ancient yeast lineage. *bioRxiv : the preprint server for biology*.

Yang J, et al. (2023) GelFAP v2.0: an improved platform for Gene functional analysis in *Gastrodia elata*. *BMC genomics*, 24(1), 164.

Liu Q, et al. (2023) PhcX Is a LqsR-family response regulator that contributes to *Ralstonia solanacearum* virulence and regulates multiple virulence factors. *mBio*, 14(5), e0202823.

Meyer A, et al. (2023) New hypotheses of cell type diversity and novelty from orthology-driven comparative single cell and nuclei transcriptomics in echinoderms. *eLife*, 12.

Duan G, et al. (2023) HGD: an integrated homologous gene database across multiple species. *Nucleic acids research*, 51(D1), D994.

Naizabekov S, et al. (2023) Comparative genomic analysis of *Methylocystis* sp. MJC1 as a platform strain for polyhydroxybutyrate biosynthesis. *PloS one*, 18(5), e0284846.

Shigenobu S, et al. (2022) Genomic and transcriptomic analyses of the subterranean termite *Reticulitermes speratus*: Gene duplication facilitates social evolution. *Proceedings of the National Academy of Sciences of the United States of America*, 119(3).

Foley S, et al. (2022) Evolutionary analyses of genes in Echinodermata offer insights towards the origin of metazoan phyla. *Genomics*, 114(4), 110431.

Wang J, et al. (2022) Computational methods, databases and tools for synthetic lethality prediction. *Briefings in bioinformatics*, 23(3).

Huang Z, et al. (2022) Comparative Genomic Analysis Reveals Potential Pathogenicity and Slow-Growth Characteristics of Genus *Brevundimonas* and Description of *Brevundimonas pishanensis* sp. nov. *Microbiology spectrum*, 10(2), e0246821.

Sahu S, et al. (2021) Ongoing repair of migration-coupled DNA damage allows planarian adult stem cells to reach wound sites. *eLife*, 10.

Li MY, et al. (2021) Effects of Huangqin Decoction on ulcerative colitis by targeting estrogen receptor alpha and ameliorating endothelial dysfunction based on system pharmacology. *Journal of ethnopharmacology*, 271, 113886.

Huan Y, et al. (2021) Label-Free Liquid Chromatography-Mass Spectrometry Proteomic Analysis of the Urinary Proteome for Measuring the Escitalopram Treatment Response From Major Depressive Disorder. *Frontiers in psychiatry*, 12, 700149.

De Kegel B, et al. (2021) Comprehensive prediction of robust synthetic lethality between paralog pairs in cancer cell lines. *Cell systems*, 12(12), 1144.

Beatman TR, et al. (2021) A nomenclature for echinoderm genes. *Database : the journal of biological databases and curation*, 2021.

Gai Z, et al. (2021) Whole Genome Level Analysis of the Wnt and DIX Gene Families in Mice and Their Coordination Relationship in Regulating Cardiac Hypertrophy. *Frontiers in genetics*, 12, 608936.

Toren D, et al. (2021) Systems biology analysis of lung fibrosis-related genes in the bleomycin mouse model. *Scientific reports*, 11(1), 19269.

Schartl M, et al. (2021) The Developmental and Genetic Architecture of the Sexually Selected Male Ornament of Swordtails. *Current biology : CB*, 31(5), 911.