

Resource Summary Report

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EchinoBase

RRID:SCR_013732

Type: Tool

Proper Citation

EchinoBase (RRID:SCR_013732)

Resource Information

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

Proper Citation: EchinoBase (RRID:SCR_013732)

Description: Database that provide a genomic information and comparative genomics platform on sea urchins and related echinoderms. It provide collection of information to directly support experimental work on these useful research models in cell and developmental biology.

Synonyms: SpBase, Echinoderm genomic database, Gene Library Resource for the Sea Urchin Strongylocentrotus purpuratus, Sea Urchin Genome Database, Echino Base

Resource Type: data or information resource, database

Defining Citation: [PMID:19010966](#)

Keywords: sea urchins, echinoderms, genome, FASEB list

Funding: NIH Office of the Director P40 OD010959

Availability: Free, Public

Resource Name: EchinoBase

Resource ID: SCR_013732

Alternate URLs: <https://orip.nih.gov/comparative-medicine/programs/genetic-biological-and-information-resources>

Record Creation Time: 20220129T080317+0000

Record Last Update: 20260729T044337+0000

Ratings and Alerts

No rating or validation information has been found for EchinoBase.

No alerts have been found for EchinoBase.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 104 mentions in open access literature.

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

Reyes G, et al. (2025) A collagenous extracellular matrix regulates germline gene expression in the sea star embryo. *Scientific reports*, 15(1), 36693.

Nesbit KT, et al. (2025) Characterization of cellular and molecular immune components of the painted white sea urchin *Lytechinus pictus* in response to bacterial infection. *Immunology and cell biology*, 103(1), 45.

Chess MM, et al. (2025) Horizontal Transfer of msp130 Genes and the Evolution of Metazoan Biocalcification. *Genome biology and evolution*, 17(2).

Escamilla-Vega E, et al. (2025) Evolution of the essential gene MN1 during the macroevolutionary transition toward patterning the vertebrate hindbrain. *Proceedings of the National Academy of Sciences of the United States of America*, 122(22), e2416061122.

Lhomond G, et al. (2024) Spatiotemporal requirements of nuclear β -catenin define early sea urchin embryogenesis. *PLoS biology*, 22(11), e3002880.

Liu Y, et al. (2024) A chromosome-level genome assembly of tropical purple sea urchin *Heliocidaris crassispina*. *Scientific data*, 11(1), 1382.

Arnott M, et al. (2024) Transcription of microRNAs is regulated by developmental signaling pathways and transcription factors. *Frontiers in cell and developmental biology*, 12, 1356589.

Telmer CA, et al. (2024) Echinobase: a resource to support the echinoderm research community. *Genetics*, 227(1).

Devens HR, et al. (2023) Hybrid epigenomes reveal extensive local genetic changes to chromatin accessibility contribute to divergence in embryonic gene expression between species. *bioRxiv : the preprint server for biology*.

Crespi-Abril AC, et al. (2023) Ethical Considerations for Echinoderms: New Initiatives in Welfare. *Animals : an open access journal from MDPI*, 13(21).

Chessel A, et al. (2023) RAS-independent ERK activation by constitutively active KSR3 in non-chordate metazoa. *Nature communications*, 14(1), 3970.

Mongiardino Koch N, et al. (2023) Confusion will be my epitaph: genome-scale discordance stifles phylogenetic resolution of Holothuroidea. *Proceedings. Biological sciences*, 290(2002), 20230988.

Chess MM, et al. (2023) Genome-wide identification and spatiotemporal expression analysis of cadherin superfamily members in echinoderms. *EvoDevo*, 14(1), 15.

Ayers TN, et al. (2023) Parallels and contrasts between the cnidarian and bilaterian maternal-to-zygotic transition are revealed in *Hydractinia* embryos. *PLoS genetics*, 19(7), e1010845.

Ayers TN, et al. (2023) Parallels and contrasts between the cnidarian and bilaterian maternal-to-zygotic transition are revealed in *Hydractinia* embryos. *bioRxiv : the preprint server for biology*.

Devens HR, et al. (2023) Hybrid Epigenomes Reveal Extensive Local Genetic Changes to Chromatin Accessibility Contribute to Divergence in Embryonic Gene Expression Between Species. *Molecular biology and evolution*, 40(11).

Zito F, et al. (2023) Carbonic anhydrases in development: morphological observations and gene expression profiling in sea urchin embryos exposed to acetazolamide. *Open biology*, 13(1), 220254.

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

Rigden DJ, et al. (2022) The 2022 Nucleic Acids Research database issue and the online molecular biology database collection. *Nucleic acids research*, 50(D1), D1.

Matt AS, et al. (2022) Extracellular carbonic anhydrase activity promotes a carbon concentration mechanism in metazoan calcifying cells. *Proceedings of the National Academy of Sciences of the United States of America*, 119(40), e2203904119.