Resource Summary Report

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SpBase - Strongylocentrotus purpuratus: the Sea Urchin Genome Database

RRID:SCR_007441
Type: Tool

Proper Citation

SpBase - Strongylocentrotus purpuratus: the Sea Urchin Genome Database (RRID:SCR_007441)

Resource Information

URL: http://www.sugp.caltech.edu/SpBase/

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Description: SpBase is designed to present the results of the genome sequencing project for the purple sea urchin. The sequences and annotations emerging from this effort are organized in a database that provides the research community access to those data not normally presented through National Center for Biotechnology Information and other large databases. Additionally, the unique information on that links gene identities and sequences to the plate and well location to the library filters from the Sea Urchin genome Resource will also be presented. The software used to organize and present the sea urchin genome comes from GMOD, a collection of open source software tools for creating and managing genome-scale biological databases. That sea urchins eggs and embryos have long remained a popular research subject for cell and developmental biologists is one rationale for sequencing the genome. In addition, studies of embryonic development in the California Purple Sea Urchin, Strongylocentrotus purpuratus , have paralleled the emergence of molecular techniques ranging from the characterization of genomic repeat sequences in the 1970"s to the elucidation of gene regulatory networks in recent times. The parent of this site, SUGP, was meant to provide a focal point for the exchange of genomic information as the genome of the Purple sea urchin was being sequenced. Over these past years it has served as a repository for small sequencing projects and a source of sequence information useful for gene discovery projects. Here one could find information on macro-array libraries of cDNAs from the purple sea urchin and genomic DNA from several species. In addition, a Sequence Tag Connector (STC) collection has been assembled from 5% of the genome sequence and a very extensive repeat sequence catalog prepared. All of the sequence data

that we maintained at SUGP was incorporated into the new SPBase. Of course, it is all in public sequence databases such as the National Center for Biological Information as well. Some additional sequence information is available at the Resource Center of the German Human Genome Project. With the publication of The Genome of the Sea Urchin Strongylocentrotus purpuratus by The Sea Urchin Genome Sequencing Consortium a link to the first 9941 gene annotations are now publicly available. The effort to sequence the whole purple sea urchin genome was a cooperative one that included contributions from the Sea Urchin Genome Facility here at the Center for Computational Regulatory Genomics, Beckman Institute, Caltech, and support from the Human Genome Research Institute of the National Institutes of Health. The sequencing was done at the Baylor College of Medicine, Human Genome Sequencing Center, Houston, Texas. Funding was approved based on an initiative submitted by the Sea Urchin Genome Advisory Committee.

Abbreviations: SpBase

Synonyms: SpBase - Strongylocentrotus purpuratus, Sea Urchin Genome Database

Resource Type: database, image, data or information resource

Keywords: embryonic, genome, annotation, bac, cdna, clones, development, dna, genomic, genomic library, images, macro-array libraries, sequence tag connector, sequencing, stc, strongylocentrotus purpuratus

Funding:

Resource Name: SpBase - Strongylocentrotus purpuratus: the Sea Urchin Genome Database

Resource ID: SCR_007441

Alternate IDs: nif-0000-01282

Old URLs: http://sugp.caltech.edu

Record Creation Time: 20220129T080241+0000

Record Last Update: 20250416T063505+0000

Ratings and Alerts

No rating or validation information has been found for SpBase - Strongylocentrotus purpuratus: the Sea Urchin Genome Database.

No alerts have been found for SpBase - Strongylocentrotus purpuratus: the Sea Urchin Genome Database.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 4 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Konrad KD, et al. (2023) microRNA-124 regulates Notch and NeuroD1 to mediate transition states of neuronal development. Developmental neurobiology, 83(1-2), 3.

Hultqvist G, et al. (2017) Emergence and evolution of an interaction between intrinsically disordered proteins. eLife, 6.

Katow H, et al. (2016) Immunohistochemical and ultrastructural properties of the larval ciliary band-associated strand in the sea urchin Hemicentrotus pulcherrimus. Frontiers in zoology, 13, 27.

Beeble A, et al. (2012) Expression pattern of polyketide synthase-2 during sea urchin development. Gene expression patterns : GEP, 12(1-2), 7.