

Resource Summary Report

Generated by NIF on Apr 27, 2025

Morpholino Database

RRID:SCR_001378

Type: Tool

Proper Citation

Morpholino Database (RRID:SCR_001378)

Resource Information

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

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Description: Central database to house data on morpholino screens currently containing over 700 morpholinos including control and multiple morpholinos against the same target. A publicly accessible sequence-based search opens this database for morpholinos against a particular target for the zebrafish community. Morpholino Screens: They set out to identify all cotranslationally translocated genes in the zebrafish genome (Secretome/CTT-ome). Morpholinos were designed against putative secreted/CTT targets and injected into 1-4 cell stage zebrafish embryos. The embryos were observed over a 5 day period for defects in several different systems. The first screen examined 184 gene targets of which 26 demonstrated defects of interest (Pickart et al. 2006). A collaboration with the Verfaillie laboratory examined the knockdown of targets identified in a comparative microarray analysis of hematopoietic stem cells demonstrating how microarray and morpholino technologies can be used in conjunction to enrich for defects in specific developmental processes. Currently, many collaborations are underway to identify genes involved in morphological, kidney, skin, eye, pigment, vascular and hematopoietic development, lipid metabolism and more. The screen types referred to in the search functions are the specific areas of development that were examined during the various screens, which include behavior, general morphology, pigmentation, toxicity, Pax2 expression, and development of the craniofacial structures, eyes, kidneys, pituitary, and skin. Only data pertaining to specific tests performed are presented. Due to the complexity of this international collaboration and time constraints, not all morpholinos were subjected to all screen types. They are currently expanding public access to the database. In the future we will provide: * Mortality curves and dose range for each morpholino * Preliminary data regarding the effectiveness of each morpholino * Expanded annotation for each morpholino * External linkage of our morpholino sequences to ZFIN and Ensembl. To submit morpholino-knockdown results to MODB please contact the administrator for a user name and password.

Abbreviations: MODB

Synonyms: MODB (MOprholino DataBase)

Resource Type: service resource, storage service resource, data or information resource, data repository, database

Defining Citation: [PMID:18179718](#)

Keywords: morpholino, target mrna, embryonic zebrafish, sequence, target, blast, phenotype, anatomy, development, behavior, morphology, pigmentation, toxicity, pax2 expression, craniofacial structure, eye, kidney, pituitary, skin, name, target name, target sequence, gene target, genetic, mortality, toxicity, defect, function, gene annotation, genome, data analysis service

Funding: NIGMS GM63904;
NIA CA65493

Availability: Public, See terms of use, [Http://mayoresearch.mayo.edu/mayo/research/legal/index.cfm](http://mayoresearch.mayo.edu/mayo/research/legal/index.cfm), The community can contribute to this resource

Resource Name: Morpholino Database

Resource ID: SCR_001378

Alternate IDs: nlx_152566

Record Creation Time: 20220129T080207+0000

Record Last Update: 20250426T055439+0000

Ratings and Alerts

No rating or validation information has been found for Morpholino Database.

No alerts have been found for Morpholino Database.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1 mentions in open access literature.

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

Bedell VM, et al. (2011) Lessons from morpholino-based screening in zebrafish. Briefings in functional genomics, 10(4), 181.