

Module 2: Maps and Genome Sequence

iii. ZFIN Map Viewer

Aims

- Introduce ZFIN Map Viewer
- Suggest starting points for various queries

Introduction

ZFIN's map viewer provides an integrated view of the zebrafish mapping panels (HS, MGH, T51, LN54, GAT, MOP) to assist with identification of candidate loci and conserved chromosome segments. An integrated map, designed by John Postlethwait et al. is also available. <http://zfin.org/cgi-bin/webdriver?Mlval=aa-crossview.apg&OID=ZDB-REFCROSS-010114-1>.

Framework markers are used to link panels. Genes, ESTs, anonymous markers and SNPs are displayed. Detailed information for a gene or marker may be found by clicking on the symbols displayed on the map.

Maps may be generated by specifying a gene or marker name or by specifying a location on a linkage group.

To generate an integrated view of mapping panel data, click on the '**Genetic Maps**' link present on ZFIN's home page.

Generate a map for a specific Gene or Marker

-----OR-----

Generate a map for a specific location by specifying a position, LG and panel

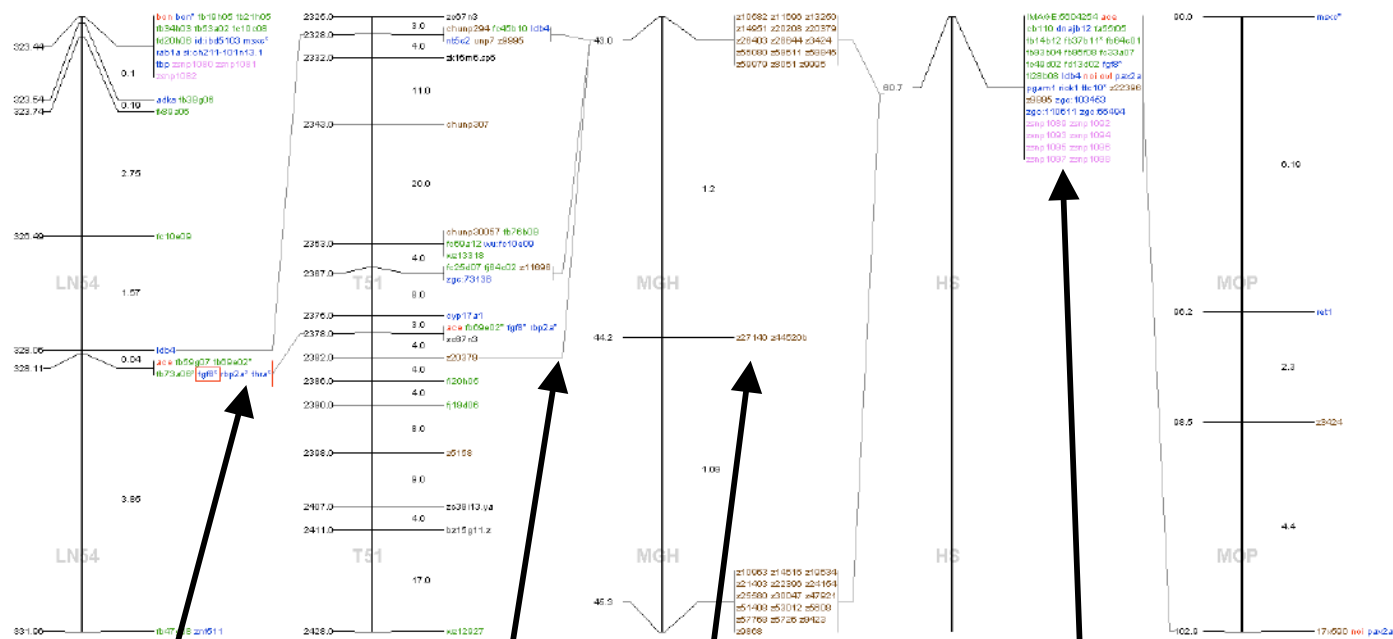
The screenshot shows the ZFIN website interface. At the top is the ZFIN logo and a navigation bar with links: Home, Mutants / Transgenics, Wild-Types, Genes / Markers / Clones, Expression, and Maps. A 'Site Search' box is on the right. Below the navigation bar is a section titled 'View a map region, choose either a marker or location'. It contains two input fields: 'Marker Symbol:' and 'Position:'. To the right of 'Position:' is a dropdown for 'LG:' with 'Any' selected. Below 'Position:' is a dropdown for 'Panel:' with '???' selected. There is an 'OR' label between the two input sections. Below these is a 'Panels to view:' section with checkboxes for LN54, T51, HS, MGH, MOP, and GAT. Below this are two buttons: 'VIEW INDIVIDUAL MAPS' and 'VIEW MERGED MAP', with a 'Reset' button to the right. A note at the bottom left says 'NOTE: Large maps may take a few moments to load.' and a note at the bottom right says '* Indicates markers that map to different linkage groups on different panels.' The footer contains links: Home, Email ZFIN, About ZFIN, Helpful Hints, and Citing ZFIN, along with copyright information for the University of Oregon (1994-2006) and the ZFIN logo design credit to Karl Pape.

Specify panels to be included

Request a map

- individual panels
- merged map

Comparison of LN54, HS and T51 panels for marker fgf8



Red lines link requested markers

Dark lines link Framework markers

Click on symbol for details

Different colors represent different marker types

View of Merged (Consolidated) Map for fgf8



Exercises

1. Use the ZFIN Map Viewer to generate a map for a specified position on a linkage group.
2. Use the ZFIN Map Viewer to generate a merged (consolidated) map for a gene of your choice.