

Module 3: Genes and Sequences (ZFIN)

iii - How Can I Find cDNA Clones for My Gene?

Aims

- Describe curation of clones and probes at ZFIN
- Suggest starting points for finding cDNA clones and probes
- Describe how to find a source for the reagent.

Introduction

ZFIN incorporates information about full length cDNA clones from the Zebrafish Gene Collection (ZGC, <http://zgc.nci.nih.gov/>), cDNAs used in large scale in situ screens conducted by the Dawid, Talbot and Thisse laboratories as well as from cDNAs cited in the literature. These cDNA sequences are curated and associated with their encoding genes. In some cases, it is not possible to associate the cDNA with a published gene. In these cases, we create novel gene records. In addition, BAC clones used by the Sanger Institute genome sequencing project are captured in ZFIN.

Finding cDNA clones

Links to cDNA clones and probe data can be found on ZFIN gene pages. Locate this information using our Genes/Markers/Clones query form, <http://zfin.org/cgi-bin/webdriver?Mival=aa-newmrkrselect.apg>. Search by specifying your gene of interest or accession number.

The screenshot shows the ZFIN search page. At the top is the ZFIN logo and navigation links: Home, Mutants / Transgenics, Wild-Types, Anatomy Publications People Labs Companies Acc#, Genes / Markers / Clones, and Expression. Below this is a search bar with the text "Search for Genes / Markers / Clones" and a "Your Input Welc" label. The search bar contains "Name / Symbol:" followed by a dropdown menu set to "contains" and an empty text input field. To the right of the input field is an "Accession Number:" label and another empty text input field. Below the search bar is a "Types:" section with the instruction "(Choose one or more)". A dropdown menu is open, showing options: All, Gene, Pseudogene, Morpholino, EST, cDNA, BAC, PAC, BAC_END, PAC_END, RAPD, SSLP, and STS. To the right of the types menu is an "LG:" dropdown menu set to "any" and a "Display results in groups of 20" label. At the bottom of the search bar are buttons for "SEARCH", "BEST MATCH", and "RI". Below the search bar is a footer with navigation links: Home, Email ZFIN, About ZFIN, Helpful Hints, and Citing ZFIN. Copyright information is provided: "Copyright © University of Oregon, 1994-2005, Eugene, Oregon. ZFIN logo design by Kari Pape, University of Oregon".

Enter gene symbol

Click on the search button or hit the "enter" key

Scroll to the **Segment (Clone and Probe) Relationship** section of the gene page.

SEGMENT (CLONE AND PROBE) RELATIONSHIPS:

bmp2b Contained in	[BAC] CH211-213I16 (order this) (1)
bmp2b Encodes	[EST] cb670 (order this) (1)
	[cDNA] MGC:92556 (order this) (1)

Click here for clone details



Click here to order clone



Click on the cb670 link to view details about this clone.

PCR primers

ZFIN
 Home Mutants / Transgenics Wild-Types Genes / Markers / Clones Expression
 Anatomy Publications People Labs Companies Acc#

ZFIN ID: ZDB-EST-030328-24

EST Name: cb670 Your Input We

CLONE DATA:
 Species: Danio rerio
 Library: oligo-dT primed shield stage
 Cloning Site: Sall-EcoRI Digest: PCR amplification Insert Size: 2000
 Vector: pSPORT Vector Type: Plasmid Polymerase: T3 RNA polymerase

PCR Amplification:
 (substitution of SP6 promotor for a T3 promotor)
 T3p : 5' GGA TCC ATT AAC CCT CAC TAA AGG GAA GAG CTA TGA CGT CGC AT 3'
 T7p : 5' TAA TAC GAC TCA CTA TAG GG 3'

Source: [Zebrafish International Resource Center \(ZIRC\)](#) (order this)

GENE EXPRESSION: [\(current status\)](#)
 Directly submitted expression data: [6 figure\(s\) \(47 images\)](#) from Thisse *et al.*, 2001 [cb670]

MARKER RELATIONSHIPS
 cb670 is encoded by [Gene] [bmp2b \(1\)](#)

SEQUENCE INFORMATION:

Type	Accession #	Length	Analysis
cDNA:	GenBank:CA588097	710 bp	- Select Tool -

[All Sequence Information \(2\)](#)

MAPPING INFORMATION:
 None submitted.

[CITATIONS](#) (1)

Sequence Link

Link to Gene expression patterns

Exercises

- Locate probes or clones that could be useful for studies of *fgf8*.
- Can you find a way to order these reagents?