###Title###

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Abstract:

####abstract###

Introduction:

Ascidians, such as *Ciona sauvignyi*, the organism studied here, are basal chordates. Although adult ascidians are very different from higher chordates in that they are sessile, have radically different body plans as a result of metamorphosis, and lack a central nervous system, the larval stage of the ascidian life cycle is not different from vertebrates in these respects. Since ascidian larvae have nervous systems similar to vertebrates in structure and development, but with far fewer neurons, they have proven useful as a model organism for studying neural development (Corbo et al. 2001).

In this study, we have identified a gene expressed in *Ciona sauvignyi* embryos that is homologous to HrETR-1, a gene in the ascidian *Halocynthia roretzi* expressed in many types of developing neural cells (Yagi and Makabe 2001). This identification was accomplished by isolating *Ciona* embryo mRNA, reverse transcribing into cDNA, amplifying by polymerase chain reaction (PCR), cloning into the pBluescript SK(+) plasmid, sequencing the gene of interest, and finally running a BLASTX search to identify genes with similar amino acid sequences.

Materials and Methods:

**Isolating the RNA**

###mat&meth###

Results:

###results##

Discussion:

###disc###

References:

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