

**D117 Interaction between the HLH genes, c-myc and max in early development of *Xenopus laevis***

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Comparative studies on two helix-loop-helix genes, myc and max were done by whole mount *in situ* hybridization in *Xenopus laevis*. A number of *in vitro* experiments have showed these two HLH proteins to form heterodimer with one another. Like the expression of *Xenopus* c-myc, maternal Xmax mRNA was localized in animal hemisphere during early stages(oocyte to midblastular stage) and zygotic expression was detected specifically in neuroectoderm, several developing tissue and organ such as placodes, CNS, somites etc. These identical expression patterns strongly suggest that Xmax and Xmyc gene products interact in *in vivo* as well to activate target genes involving inductive process during early embryogenesis.

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Isolation of AP2 cDNA Using RT-PCR and Its Expression in the Embryo of *Xenopus laevis*

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XAP2(Xenopus Activator Protein 2) cDNA were isolated from *Xenopus laevis* using RT-PCR method. We got two major cDNA species with some minor ones from the mRNAs which were isolated from stage 10 to 40 embryos. The longest one was 1.3kb long and another major one has a shorter base sequence.

The expression pattern of *Xenopus* AP2 were studied with whole mount *in situ* hybridization technique in stage 30 to 40 embryos. XAP2 was expressed specifically in notochord from its anterior margin to posterior one. This expression pattern strongly suggests that XAP2 does crucial role in the induction of floor plate which is located in just upper region of the notochord. Including the role in the floor plate induction, studies on the differential functions between the different transcripts and the biological functions of the XAP2 are on going.