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**Cloning of the cDNA encoding Cholesterol Side Chain
Cleavage Enzyme in *Rana dybowskii***

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Oocyte growth and maturation are regulated by gonadotropins through the follicular steroidogenesis in amphibians. Cholesterol is a main precursor for steroids and metabolized to pregnenolone by cholesterol side chain cleavage enzyme(P450scc) and enter the steroidogenic pathway. Thus P450scc has a crucial role in the steroid metabolism in ovarian follicles. We designed the primers which match to the P450scc conserved amino acid sequence. Partial sequence of P450scc was amplified by RT-PCR in ovary and then PCR product was cloned into pBluescript SK(+). The insert size was 201bp. Deduced amino acid sequence of PCR clone was identical with the conserved region of P450scc of other animals. The deduced amino acid sequence identity compared with other animal was 60, 59, 58% in rainbow trout, human and pig, respectively. This is the first report demonstrating the partial cloning of cDNA encoding P450scc in amphibians. (HRC-96-0402)

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**Effects of K-252a on Tyrosine Phosphorylation of 120~130-kDa
Protein and Myogenesis in C2C12 Cells**

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In a variety of cell types, tyrosine phosphorylation acts as a key regulation step in signaling for cell differentiation, but the role of tyrosine phosphorylation in muscle differentiation remains to be resolved. In this study, we examined the changes in protein tyrosine phosphorylation during myogenesis in C2C12 murine skeletal muscle cells. Upon protein tyrosine phosphorylation analysis, the tyrosine phosphorylation of 120~130-kDa protein increased at the early stage of differentiation. Furthermore, treatment of K-252a, a modulator of tyrosine kinase, markedly enhanced the tyrosine phosphorylation of this protein in a dose-dependent manner. At the same concentration, K-252a stimulated myoblast fusion dramatically and increased muscle-specific gene expression. These results suggest that tyrosine phosphorylation of 120~130-kDa protein might play an important role for skeletal muscle differentiation.