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Induced Expression of *c-jun* in the Bile Acid-Induced Apoptosis in Mouse F9 Teratocarcinoma Stem Cells

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Ursodeoxycholic acid (UDCA) and lithocholic acid (LCA), secondary bile acids, have been shown to have a cell differentiation activity in the mouse F9 teratocarcinoma stem cells. Treatment with the bile acids induced morphological changes, including cytoplasmic and nuclear membrane blebbing, aggregation of organelles, and chromatin condensation, corresponding to apoptosis. Moreover, the bile acids induced internucleosomal DNA fragmentation, a hallmark of apoptosis, assessed by gel electrophoresis. In addition, the bile acids increased the expression of *c-jun*, but decreased the expression of *c-myc* and laminin in F9 cells. These results suggest that the bile acids can induce apoptosis in F9 cells. Furthermore, the *c-jun* activation may be necessary for the apoptosis induced by LCA or UDCA in F9 cells.

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hobo enhancer trapping mutagenesis to find genes involved in dpp signal transduction pathway

전상학

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decapentaplegic (*dpp*) is a zygotically expressed gene encoding a member of transforming growth factor-beta (TGF-beta) superfamily, which is most similar to the bone morphogenetic proteins (BMPs). *dpp* is required for several events including embryonic dorsal-ventral pattern formation, embryonic midgut development and proliferation of imaginal disk cells. We have used hobo enhancer trapping to identify other genes involved in this process. Genetic characterization of this enhancer trapping lines will be presented.