

Expression of the human SRY protein during development in normal male gonadal and sex-reversed tissues

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Sex determination in mammals is controlled by the SRY gene located on the Y chromosome. It encodes a protein containing a DNA-binding and DNA-bending domain. In spite of recent advances in the identification of the mechanisms that regulate male sex determination in mammals, the expression profile of the SRY protein in normal and sex-reversed human tissues is not well established. In order to localize the SRY protein and determine its cellular distribution and expression at different stages of development, we prepared monoclonal antibodies (mAb) against the recombinant SRY protein. One of these antibodies, LSRY1.1, recognizes a protein of 27 kDa in total lysates of HeLa SRYB3, a human cell line transfected with the SRY gene under the control of the SV40 promoter. Immunocytochemical analysis in the cell lines shows nuclear localization of the SRY protein. We have studied SRY protein expression in human tissues at different stage of fetal development until adult life and have demonstrated