

Differentiation of Two Species of Mullerian Inhibitory Substance (MIS)



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Abstract

Muellerian inhibiting substance (MIS), also known as Anti-Muellerian hormone, is a testicular protein responsible for the regression of the Mullerian duct. In vivo and in vitro experiments using MIS have shown it to inhibit the growth of various tumors, including certain ovarian cancers. Two approaches to purifying the product have been used, immunoaffinity purification and chromatography. The purified products were tested for affinity to binding sites using the enzyme linked immunoabsorbent assay (ELISA). The goal of this study was to test the theory that the two MIS proteins identified, termed IAP and Q, were different on structural and molecular levels. The results of these investigations reveal the existence of two distinct types of MIS differentiated by ELISA which based on future study may have different impacts as cancer treatment agents.