

论文

人抑制素 $\beta$ A亚基片段的合成及抑制素 $\alpha$ 亚基、 $\beta$ A亚基单克隆抗体的制备

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摘要:

目的 合成人抑制素 $\alpha$ 亚基1个片段和 $\beta$ A亚基两个片段 $\beta$ A(1-28) (GLECDGKVNICCKKQFFVSFK-DIGW-NDW),  $\beta$ A(82-114) (VPTKLRPMSMLYDDGQNIKKDIQNMIIVEECG)并制备了相应的单克隆抗体。方法应用固相多肽合成法人工合成了1个抑制素 $\alpha$ 亚基片段和2个 $\beta$ A亚基片段,以化学合成的片段作为半抗原,经抗原和单抗的制备获得7株杂交瘤细胞株。测定了单抗的滴度、特异性和相对亲和力。结果 单抗的鉴定及特异性分析实验表明这些单克隆抗体具有特异性、敏感性和实用性。结论 在这些实验的基础上建立测定血清抑制素水平的方法是可能的。

关键词: 抑制素 固相多肽合成 单克隆抗体 免疫组化

SYNTHESIS OF HUMAN INHIBIN  $\beta$ A FRAGMENTS, PREPARATION AND GENERATION OF MONOCLONAL ANTIBODIES AGAINST HUMAN INHIBIN  $\alpha$  AND  $\beta$ A SUBUNITS

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Abstract:

AIM To synthesize fragments of inhibin subunits  $\beta$ A(1-28) (GLECDGKVNICCKKQFFVSFKDIGWNDW),  $\beta$ A (82-114) (VPTKLRPMSMLYDDGQNIKKDIQNMIIVEECG) and to obtain their monoclonal antibodies. METHODS The fragments of inhibin subunits  $\alpha$ (37-65),  $\beta$ A(1-28) and  $\beta$ A(82-114) have been synthesized manually by stepwise solid-phase procedure. These peptide products were conjugated with TG as antigens to prepare McAbs against inhibin  $\alpha$  and  $\beta$ A subunit. After immunization, fusion, selection and cloning procedures, seven hybridoma cell lines were obtained. Ascites titer, specificity and relative affinity were identified. RESULTS These McAbs were shown to be highly special, sensitive and useful in detection tests. Initial immunohistochemistry test gave some important information for clinical utility. CONCLUSION The method of detecting serum inhibin level will be established on basis of the present research.

Keywords: solid phase peptide synthesis monoclonal antibody immunohistochemistry inhibin

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