

论文

抑制素β<sub>a</sub>亚基片段的合成及活性的初步测定

刘爱民;鲁桂琛

中国医学科学院药物研究所,北京100050

摘要:

以固相多肽合成方法合成了抑制素β<sub>a</sub>亚基的六个片段: I b-β<sub>A</sub>(37~39)-NH<sub>2</sub>(I), I b-β<sub>A</sub>(34~39)-NH<sub>2</sub>(II), I b-β<sub>A</sub>(30~39)-NH<sub>2</sub>(III), I b-β<sub>A</sub>(23~39)-NH<sub>2</sub>(IV), I b-β<sub>A</sub>(16~39)-NH<sub>2</sub>(V)和 I b-β<sub>A</sub>(14-39)-NH<sub>2</sub>(VI),对产物进行了分离纯化。用垂体细胞培养方法对其中 I, II 和III进行生物活性测定,表明它们不能抑制由LHRH诱导的FSH分泌,IV, V 和VI三个太肽片段由于难溶于中性介质,需要寻求其它方法对其进行生物活性测定。

关键词: 抑制素β<sub>a</sub>亚基片段 HPLC 固相多肽合成

SYNTHESES AND PRELIMINARY BIOASSAYS OF INHIBIN SEGMENTS

AM Liu and GC Lu

Abstract:

Six segments within the subunit beta-A of the follicular inhibin have been synthesized by an improved solid phase procedure on p-methyl-benzhydrylamine (1% divinylbenzene) resin. The courses of the syntheses were monitored by quantitative ninhydrin assays and amino acid analyses. Following the cleavage by HF-pcresol (9:1 V/V), the peptides were extracted with anhydrous trifluoroacetic acid containing 1% dithiothreitol and precipitated with dry ethyl ether. The purification was achieved uniquely by reverse phase HPLC and final products were craracserized by several TLC systems, analytical HPLC and amino acid analyses. Pituitary cell culture bioassays were performed to ascertain their biological activities. However, among these synthetic peptides, the small peptides Ib-β<sub>a</sub>(37~39)NH<sub>2</sub>(I), Ib-β<sub>A</sub>(34~39)NH<sub>2</sub>(II), and ib-β<sub>A</sub>(30~39)NH<sub>2</sub>(III)showed no significant supression on the LHRH-induced FSH secretion; the large peptides Ib-β<sub>A</sub>(23~39)NH<sub>2</sub>(IV), Ib-β<sub>A</sub>(16~39)NH<sub>2</sub>(V), and Ib-β<sub>A</sub>(14~39)NH<sub>2</sub>(VI) lack adequate solubility in neutral media, and other methods are to be sought to test their bioactivities.

Keywords: HPLC Solid phase peptide synthsis Inhibin

收稿日期 1989-10-06 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者:

作者简介:

参考文献:

本刊中的类似文章

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

反 馈 人	<input type="text"/>	邮箱地址	<input type="text"/>
反			

扩展功能

本文信息

Supporting info

PDF(413KB)

[HTML全文]

参考文献

服务与反馈

把本文推荐给朋友

加入我的书架

加入引用管理器

引用本文

Email Alert

文章反馈

浏览反馈信息

本文关键词相关文章

抑制素β<sub>a</sub>亚基片段

HPLC

固相多肽合成

本文作者相关文章

刘爱民

鲁桂琛

PubMed

Article by

Article by

反馈  
标题

验证码

4140