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论文

长效LHRH拮抗剂的设计、合成和生物活性

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摘要:

根据抗蛋白酶降解的长效肽设计思想, 合成了一系列新型结构的LHRH拮抗剂类似物. 体内生物活性评价结果表明, 所设计的多肽具有比母体肽和阳性对照更长的体内抑制睾酮作用时间和较低的最低有效剂量, 证实了该设计思想的可行性, 并为开发长效LHRH拮抗剂药物提供了新的候选化合物.

关键词: LHRH拮抗剂 长效肽 睾酮

Design, Synthesis and Bioactivity of Long Acting LHRH Antagonists

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Abstract:

Based on a new concept of protease-resistant long acting peptides design, the functional groups with proton-donors and proton-acceptors were introduced to the N-terminal and position 6 of LHRH antagonist, and a series of novel LHRH antagonist analogues were synthesized. The bioactivity of them was evaluated in rats by a testosterone test model. The designed peptides showed a longer duration of inhibiting testosterone secretion than the parent peptide and control. Peptide 1e inhibited the testosterone secretion for 48 h in intact rats(Cetrorelix: 8 h). The experimental results not only support the proposed concept of the long acting peptide design, but also supply some new candidate compounds for the development of long acting LHRH antagonist drugs.

Keywords: LHRH antagonist Long acting peptide Testosterone

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