9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

Kisspeptin-10

Kisspeptin-10
HRM0062

Product Overview

Name	Kisspeptin-10

Description

Kisspeptin-10

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized with no additives.

Stability

Lyophilized Kisspeptin-10 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Kisspeptin-10 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by analysis by RP-HPLC.

Amino acid sequence

H-Tyr-Asn-Trp-Asn-Ser-Phe-Gly-Leu-Arg-Phe-NH2.

Solubility

It is recommended to reconstitute the lyophilized Kisspeptin-10 in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Background

Kisspeptin-10, a peptide derived from the Kisspeptin gene (KISS1), has emerged as a key player in the regulation of reproductive physiology. The peptide is known for its potent ability to stimulate the release of gonadotropin-releasing hormone (GnRH), a crucial factor in the control of the hypothalamic-pituitary-gonadal axis. The pivotal role of kisspeptin-10 in orchestrating the onset of puberty and the regulation of the menstrual cycle highlights its significance in reproductive health. This research aims to delve into the multifaceted functions of kisspeptin-10, shedding light on its physiological roles and potential applications in reproductive disorders. The primary objective of this study is to comprehensively explore the effects of kisspeptin-10 on the reproductive system. In vitro and in vivo assays will be conducted to investigate the impact of kisspeptin-10 on GnRH release and subsequent gonadotropin secretion. The interactions between kisspeptin-10 and its receptor, G protein-coupled receptor 54 (GPR54), will be explored using

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binding assays, potentially unraveling novel signaling pathways activated by this interaction. The second objective is to investigate the potential therapeutic applications of kisspeptin-10 in reproductive disorders. Clinical studies and animal models will be utilized to assess the efficacy of kisspeptin-10 in stimulating ovulation, particularly in cases of infertility caused by hypothalamic dysfunction. Furthermore, the potential of kisspeptin-10 in regulating conditions like polycystic ovary syndrome (PCOS) and hypogonadotropic hypogonadism will be explored. The third objective is to elucidate the molecular mechanisms underlying the actions of kisspeptin-10. Transcriptomic and proteomic analyses will be employed to identify genes and proteins regulated by kisspeptin-10 stimulation. This information could reveal novel downstream effectors of kisspeptin-10 signaling, contributing to a more comprehensive understanding of its role in reproductive physiology. By delving into the complexities of kisspeptin-10, this research aims to provide insights into its multifunctional roles in reproductive health and expand its potential therapeutic applications. The findings from this study may pave the way for the development of targeted interventions for reproductive disorders, potentially improving the quality of life for individuals affected by these conditions.

Precautions

Kisspeptin-10 is for research use only and not for use in diagnostic or therapeutic procedures.

Background

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