Competitive Enzyme Immunoassay Kit

Gonadorelin (LH-RH)

Catalog No: CEK 0100-00

Background

Gonadorelin, Gonadotropin-releasing hormone (GnRH), also known as Luteinizing-hormone releasing hormone (LH-RH), is a tropic peptide hormone responsible for the release of FSH and LH from the anterior pituitary. GnRH is synthesized and released from neurons within the hypothalamus. Its brand name is Factrel, Lutrepulse, and Relisorm. It is indicated for the diagnostic aid-hypothalamic-pituitary-gonadal axis function and infertility therapy agent.

GnRH is considered a neurohormone, a hormone produced in a specific neural cell and released at its neural terminal. A key area for production of GNRH is the preoptic area of the hypothalamus, that contains most of the GNRH-secreting neurons. GnRH neurons originate in the nose and migrate into the brain where they are scattered throughout the medial septum and hypothalamus and connected by very long (>1 mm) dendrites. These bundle together so they receive shared synaptic input, a process that allows them to synchronize their GnRH release.

GnRH is secreted in the hypophysial portal bloodstream at the median eminence. The portal blood carries the GnRH to the pituitary gland, which contains the gonadotrope cells, where GnRH activates its own receptor, gonadotropin-releasing hormone receptor (GNRHR), a seven transmembrane G-protein coupled receptor that stimulates the beta isoform of Phosphoinositide phospholipase C, which goes on to mobilize calcium and protein kinase C. This results in the activation of proteins involved in the synthesis and secretion of the gonadotropins, LH and FSH. GnRH is degraded by proteolysis within a few minutes.

Kit application: CEK Gonadorelin (LH-RH) is a 96 wells competitive immunoassay Kit. It can be applied for the analysis of gonadorelin(LH-RH) in serum, plasma, or tissue extracts in pharcokinetcis, peptide delivery studies and other purposes.

This kit is for research use only.
Application Note: Room Temperature, 3 hours assay, 50ul sample size

Storage: 2 – 5°C

Detection Method: Colorimetric
Range: 0.01 – 100 ng / ml
ED₂₀ 0.15 ng / ml
ED₈₀ 1.14 ng / ml

Specificity:
Gonadorelin (LH-RH) 100%
Goserelin 4.3%
Leuprolide 0%

Typical Data

This standard curve is provided for demonstration only. A standard curve should be generated for each set of samples assayed.