

# Recombinant Human Lutropin beta chain/LHB Protein RPCB1269



## Product Information

<b>Product SKU:</b>	RPCB1269	<b>Gene ID:</b>	3972	<b>Size:</b>	10µg
<b>Tag:</b>	C-His	<b>Reactivity:</b>	Human		

## Additional Information

<b>Expression Host:</b>	-	<b>Swissprot:</b>	P01229
<b>Purity:</b>	> 95% by SDS-PAGE.		

## Protein Information

**Background:** LHB, Promotes spermatogenesis and ovulation by stimulating the testes and ovaries to synthesize steroids. Luteinizing Hormone (LH) is a 42 kDa heterodimer belonging to the glycoprotein hormone family. It is composed of noncovalently linked glycosylated alpha and beta chains. The alpha subunit (CG alpha) is also a component of Follicle-Stimulating Hormone (FSH), Thyroid-Stimulating Hormone, and Chorionic Gonadotropin. The unique beta subunit confers the protein's specific biological action and is responsible for the interaction with its receptor. The approximately 20 kDa human CG alpha subunit shares 73% and 72% amino acid (aa) sequence identity with the mouse and rat orthologs, respectively. The approximately 18 kDa human LH beta subunit shares 71% and 72% aa sequence identity with the mouse and rat orthologs, respectively. Multiple isoforms of LH exist due to differences in the post-translational glycosylation, sialylation, and sulphation modifications of its subunits. The composition, longevity, and activity of the different LH isoforms vary throughout a woman's menstrual cycle and reproductive life cycle. LH is produced and secreted by the anterior pituitary gland. Its secretion is controlled by Gonadotropin-Releasing Hormone from the hypothalamus; however, LH secretion can also be stimulated by estradiol. LH works in concert with FSH to regulate female reproduction; FSH stimulates follicular growth and LH induces ovulation. LH also drives formation of the corpus luteum by promoting progesterone production.

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Additionally, LH has been suggested to stimulate the adrenal gland in postmenopausal women to induce secretion of sulfated DHEA, a precursor to androgens . In the testis, LH induces Leydig cell production of testosterone. Hypersecretion of LH has been shown to occur in women with polycystic ovary syndrome and is associated with an increased risk of infertility and miscarriage. Additionally, increased serum LH levels are associated with decreased cognition and have been implicated in the development and progression of Alzheimer's disease .

**Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Human Lutropin beta chain/LHB Protein , tested reactivity in HEK293 cells and has been validated in SDS-PAGE.100% guaranteed.

**Endotoxin:** < 0.1EU/μg of the protein by LAL method

**Formulation:** Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

**Storage:** Store at -20°C.Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.