Rat PRL Antibody Pair Set

Catalog No. E-KAB-0110 **Applications** ELISA
Synonyms Lactotrope, LTH, Luteotropic Hormone

Kit components & Storage

Title	Specifications	Storage
Rat PRL Capture Antibody	1 vial, 100 μg	Store at -20℃ for one year. Avoid freeze / thaw cycles.
Rat PRL Detection Antibody (Biotin)	1 vial, 50 μL	Store at -20℃ for one year. Avoid freeze / thaw cycles.

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

Items		Characteristic (E-KAB-0110)	
		Rat PRL Capture Antibody	Rat PRL Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Rat PRL protein	Recombinant Rat PRL protein
	Swissprot	P01237	
Product details	Reactivity	Rat	Rat
	Host	Rabbit	Rabbit
	Conjugation	Unconjugated	Biotin
	Concentration	0.5mg/mL	/
	Buffer	PBS with 0.04% Proclin 300, 50% glycerol, pH 7.4	PBS with 0.04% Proclin 300, 1% protective protein, 50% glycerol, pH 7.4
	Purify	Antigen Affinity	Antigen Affinity
	Specificity	Detects Rat PRL in ELISAs.	

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017
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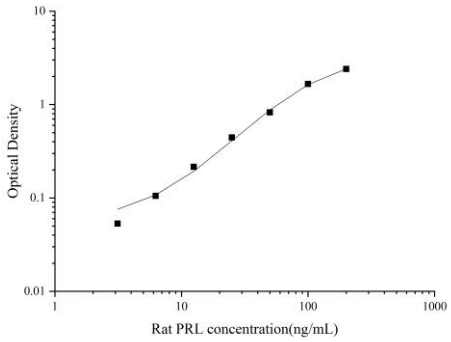
Applications

Rat PRL Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images
ELISA Capture	0.5-4μg/mL	Rat PRL Capture Antibody	
ELISA Detection	1:1000-1:10000	Rat PRL Detection Antibody (Biotin)	

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

Background

Prolactin (PRL) is a neuroendocrine pituitary hormone. Prolactin is synthesized by the anterior pituitary,placenta,brain,uterus,dermal fibroblasts,decidua,B cells,T cells,NK cells and breast cancer cells. Originally characterized as a lactogenic hormone, further studies have demonstrated broader roles in breast cancer development,regulation of reproductive function,and immunoregulation. In the immune system,Prolactin has been shown to be secreted by human PBMC and to act as a proliferative growth factor. Additionally,Prolactin treatment of human PBMC has been shown to enhance IFN-gamma production. In the breast,Prolactin-induced morphogenesis of the mammary cells is mediated through IGF-2,which in turn upregulates cyclin D1. Prolactin has several molecular forms. The predominant form is a monomer,the non-glycosylated form is 23 kDa and the glycosylated form is 25 kDa. Glycosylated Prolactin is removed from the circulation faster and has been reported to have lower biological potency. Mouse Prolactin cDNA encodes a 228 amino acid (aa) residue protein with a putative 31 aa residue signal peptide. The Prolactin receptor is a transmembrane type I glycoprotein that belongs to the cytokine hematopoietic receptor family. B cells,T cells,macrophages,NK cells,monocytes,CD34+ progenitor cells,neutrophils,mammary gland,liver,kidney,adrenals,ovaries,testis,prostrate,seminal vesicles,and hypothalamus have all been shown to express the Prolactin receptor. Three forms of the receptor,generated by differential splicing,have been identified. These isoforms differ in the length of their cytoplasmic domains. It is believed that the short cytoplasmic form is non-functional. Prolactin signal transduction involves the JAK/STAT families and Src kinase family

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