Human LEP Antibody Pair SetSet

Catalog No. E-KAB-0050 **Applications** ELISA
Synonyms LEPD, OBS, Obesity Homolog

Kit components & Storage

Title	Specifications	Storage
Human LEP Capture Antibody	1 vial, 100 μ g	Store at -20℃. Avoid freeze/thaw cycles.
Human LEP Detection Antibody (Biotin)	1 vial, 50 μL	Store at -20℃. Avoid freeze/thaw cycles.

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

Product Information

Items		Characteristic (E-KAB-0050)	
		Human LEP Capture Antibody	Human LEP Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Human LEP protein	Recombinant Human LEP protein
	Swissprot	P41159	
Product details	Reactivity	Human	Human
	Host	Mouse	Mouse
	Conjugation	Unconjugated	Biotin
	Concentration	0.5 mg/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	Protein A or G	Protein A or G
	Specificity	Detects Human LEP in ELISAs.	

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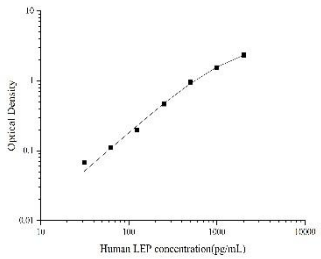
Applications

Human LEP Sandwich ELISA Assay

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

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

Background

Key player in the regulation of energy balance and body weight control. Once released into the circulation,has central and peripheral effects by binding LEPR,found in many tissues,which results in the activation of several major signaling pathways.In the hypothalamus,acts as an appetite-regulating factor that induces a decrease in food intake and an increase in energy consumption by inducing anorexinogenic factors and suppressing orexigenic neuropeptides,also regulates bone mass and secretion of hypothalamo-pituitary-adrenal hormones. In the periphery,increases basal metabolism,influences reproductive function,regulates pancreatic beta-cell function and insulin secretion,is pro-angiogenic for endothelial cell and affects innate and adaptive immunity.In the arcuate nucleus of the hypothalamus,activates by depolarization POMC neurons inducing FOS and SOCS3 expression to release anorexigenic peptides and inhibits by hyperpolarization NPY neurons inducing SOCS3 with a consequent reduction on release of orexigenic peptides.In addition to its known satiety inducing effect,has a modulatory role in nutrient absorption. In the intestine,reduces glucose absorption by enterocytes by activating PKC and leading to a sequential activation of p38,PI3K and ERK signaling pathways which exerts an inhibitory effect on glucose absorption.Acts as a growth factor on certain tissues,through the activation of different signaling pathways increases expression of genes involved in cell cycle regulation such as CCND1,via JAK2-STAT3 pathway,or VEGFA,via MAPK1/3 and PI3K-AKT1 pathways.

May also play an apoptotic role via JAK2-STAT3 pathway and up-regulation of BIRC5 expression.Pro-angiogenic,has mitogenic activity on vascular endothelial cells and plays a role in matrix remodeling by regulating the expression of matrix metalloproteinases (MMPs) and tissue inhibitors of metalloproteinases (TIMPs).In innate immunity,modulates the activity and function of neutrophils by increasing chemotaxis and the secretion of oxygen radicals. Increases phagocytosis by macrophages and enhances secretion of pro-inflammatory mediators. Increases cytotoxic ability of NK cells.

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