SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Leptin receptor/PE Conjugated antibody

SL0410R-PE

Product Name	Anti-Leptin receptor/PE
Chinese Name	PE 标记的瘦素受体抗体
Alias	obl; CD 295; CD295; CD295 antigen; Db; Fa; HuB219; LEP R; LEPR; LEPROT; Leptin receptor fatty; Leptin receptor gene related protein; Leptin receptor precursor; OB R; OB-R; OB R gene related protein; OB receptor; OB-RGRP; Obr; Ob-R a/b/c/d/e; LEPRD; Leptin receptor.
Research Area	immunology Neurobiology The cell membrane 受体
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat(predicted:Horse,Sheep,Goat)
Applications	Flow-Cyt=2ug/Test,IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	26kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from sheep Leptin receptor C-terminus
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** The protein encoded by this gene belongs to the gp130 family of cytokine receptors that are known to stimulate gene transcription via activation of

cytosolic STAT proteins. This protein is a receptor for leptin (an adipocyte-specific hormone that regulates body weight), and is involved in the regulation of fat metabolism, as well as in a novel hematopoietic pathway that is required for normal lymphopoiesis. Mutations in this gene have been associated with obesity and pituitary dysfunction. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. It is noteworthy that this gene and LEPROT gene (GeneID:54741) share the same promoter and the first 2 exons, however, encode distinct proteins (PMID:9207021).[provided by RefSeq, Nov 2010]

Function:
Receptor for obesity factor (leptin). On ligand binding, mediates signaling through JAK2/STAT3. Involved in the regulation of fat metabolism and, in a hematopoietic pathway, required for normal lymphopoiesis. May play a role in reproduction. Can also mediate the ERK/FOS signaling pathway.

Subunit:
On leptin stimulation, homodimerizes. The phosphorylated receptor binds a number of SH2 domain-containing proteins such as STAT3, PTPN11, and SOCS3. Interaction with SOCS3 inhibits LRb signaling.

Subcellular Location:
Cell membrane; Single-pass type I membrane protein. Isoform E: Secreted (Probable).

Tissue Specificity:
Isoform A is expressed in fetal liver and in hematopoietic tissues and choroid plexus. In adults highest expression in heart, liver, small intestine, prostate and ovary. Low level in lung and kidney. Isoform B is highly expressed in hypothalamus.

Post-translational modifications:
On ligand binding, phosphorylated on two conserved C-terminal tyrosine residues (isoform B only) by JAK2. Tyr-986 is required for complete binding and activation of PTPN11, ERK/FOS activation and, for interaction with SOCS3. Phosphorylation on Tyr-1141 is required for STAT3 binding/activation.

Similarity:
Belongs to the type I cytokine receptor family. Type 2 subfamily.
Contains 4 fibronectin type-III domains.
Contains 1 Ig-like (immunoglobulin-like) domain.

Database links:

Entrez Gene: 3953 Human

Entrez Gene: 16847 Mouse

Entrez Gene: 24536 Rat

Omim: 601007 Human

SwissProt: P48357 Human

SwissProt: P48356 Mouse

SwissProt: Q62959 Rat

Unigene: 23581 Human

Unigene: 723178 Human

Unigene: 259282 Mouse

Unigene: 9891 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Leptin 是一种分子量为 16kDa 的脂肪组织源激素，由脂肪细胞分泌的，具有强亲水性，以单体形式存在于血浆中。
Leptin 具有广泛的生物学效应，作用于下丘脑，调节食欲、能量代谢及体重。Leptin 还可能作为脂肪-胰岛内分泌轴一部分，参与胰岛素分泌的调节。Leptin receptor (OB-R)是与 gp130 最密切相关的 Signal transduction 的共同成分,属 1 类 cell factor 超家族，下丘脑有丰富的 Leptin receptor，在其它部位也有分布，但水平较低：如胰岛素 B 细胞；脉络丛；肝、肺、心、肾、睾丸、lymphocyte 和脂肪细胞中。
人类存在四个异性体，均为单跨膜受体。其中 OB-Rb 在胞内结构域最长，是唯一能进行信号传导并调节热量摄入和能量消耗的异性体。