

Datasheet for ABIN7196767

Leptin Receptor Protein (LEPR) (His tag,Fc Tag)



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Overview

Quantity:	100 µg
Target:	Leptin Receptor (LEPR)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Leptin Receptor protein is labelled with His tag,Fc Tag.

Product Details

Purpose:	Recombinant Human LEPR/CD295 Protein (His & Fc Tag)(Active)
Sequence:	Met 1-Asp 839
Characteristics:	A DNA sequence encoding the extracellular domain (Met 1-Asp 839) of human leptin receptor precursor (NP_002294.2) was expressed with the C-terminal fused polyhistidine-tagged Fc region of human IgG1.
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its binding ability in a functional ELISA. Immobilized human Leptin at 1.25 µg/ml (100 µl/well) can bind human Leptin receptor with a linear range of 0.032-4.0 µg/ml.

Target Details

Target:	Leptin Receptor (LEPR)
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Target Details

Alternative Name: LEPR/CD295 ([LEPR Products](#))

Background: Background: Leptin Receptor or CD295 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. Leptin Receptor/CD295 is a transmembrane catalytic receptors found on NPY/AgRP and alpha-MSH/CART neurons in hypothalamic nuclei. Leptin receptors (Ob-Rs) are coded for by one human gene that produces six different isoforms, Ob-Ra - Ob-Rf. Ob-Rs exist as constitutive dimers at physiological expression levels. Only the Ob-Rb isoform can transduce intracellular signals and does so through activation of the JAK2/STAT3, PI 3-K and MAPK signaling cascades. Activation of Ob-Rs mediates transcriptional regulation of the hypothalamic melanocortin pathway and downregulates endocannabinoid expression. Leptin acts via leptin receptors. Leptin resistance has been proposed as a pathophysiological mechanism of obesity. In obese individuals, Ob-Ra (which is involved in active transport of leptin across the blood-brain barrier) expression is downregulated and the individual may be unresponsive to leptin signals. Ob-R antagonists are of great interest in the development of pharmacological treatments for obesity. Mutations in Leptin Receptor/CD295 have been associated with obesity and pituitary dysfunction.

Synonym: Leptin receptor, LEP-R, HuB219, OB receptor, OB-R, CD295, LEPR, DB, OBR

Molecular Weight: 121.4 kDa

NCBI Accession: [NP_002294](#)

Pathways: [JAK-STAT Signaling](#), [AMPK Signaling](#), [Feeding Behaviour](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile PBS, pH 7.4

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.