cellsciences.com

LEPR
Recombinant Human Leptin Receptor / CD295 (His & Fc Tag)

Catalog No.	CRH449A-HisFc	**Quantity:**	100 µg
	CRH449B-HisFc		200 µg
Alternate Names:	Leptin receptor, LEP-R, HuB219, OB receptor, OB-R, CD295		
Description:	Leptin Receptor or CD295 belongs to the gp13 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.		
UniProt ID:	P48357		
Accession Number:	NP_002294.2		
Protein Construction:	A DNA sequence encoding the extracellular domain (Met 1-Asp 839) of human leptin receptor precursor was expressed with the C-terminal fused polyhistidine-tagged Fc region of human IgG1.		
Source:	HEK293 Cells		
Formulation:	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.		
Molecular Weight:	The recombinant human LEPR/Fc is a disulfide-linked homodimeric protein.The reduced monomer consists of 1065 amino acids and has a predicted molecular mass of 121.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh LEPR/Fc monomer is approximately 155-165 kDa due to glycosylation.		
Purity:	> 95 % as determined by SDS-PAGE.		
Endotoxin Level:	< 1.0 EU per µg protein as determined by the LAL method.		

Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com

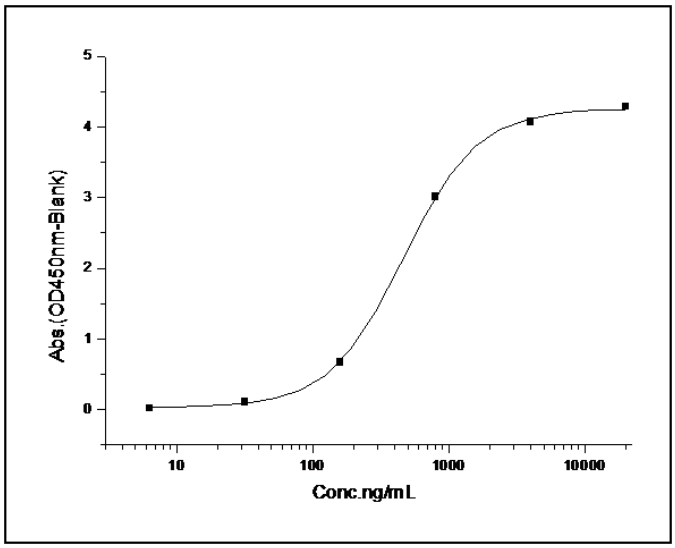
Biological Activity: Measured by its binding ability in a functional ELISA . Immobilized human Leptin at 1.25 µg/ml (100 µl/well) can bind human Leptin receptor with a linear range of 0.032-4.0 µg/ml .

Predicted N-terminal: Phe 22

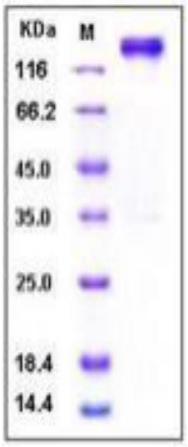
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

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 µg/ml.



SDS-PAGE



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

Cell Sciences ®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com