

Leptin Receptor Active Protein | LEPR active protein

Leptin Receptor Protein, Human, Recombinant (His & hFc Tag)

CATALOG #
AAA257869

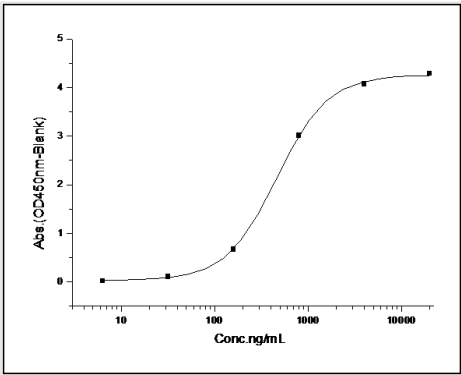
HOST
HEK293 Cells

PRODUCT SYNONYMS

Leptin Receptor; Leptin Receptor Protein; Human; Recombinant (His & hFc Tag); Human Leptin Receptor/LEPR/CD295 Protein (His & Fc Tag); CD295 Protein; LEP-R Protein; LEPRD Protein; OB-R Protein; OBR Protein; leptin receptor; LEPR active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>90% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Asp83 9
Species	Human
Activity	Measured by its binding ability in a functional ELISA. Immobilized human Leptin at 1.25ug/ml (100uL/well) can bind human Leptin receptor with a linear range of 0.032-4.0ug/ml.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Phe 22
Tag	C-human IgG1-Fc & His
Protein Construction	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.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized human Leptin at 1.25 ug/ml (100 ul/well) can bind human Leptin receptor with a linear range of 0.032-4 ug/ml.

ADDITIONAL INFORMATION

Related Product Information for LEPR active protein

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 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 the 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 the Leptin Receptor/CD295 have been associated with obesity and pituitary dysfunction.

References

Heshka JT, et al. (2001) A role for dietary fat in leptin receptor, OB-Rb, function. Life Sci. 69 (9): 987-1003. Chen H, et al (1996) Evidence that the diabetes gene encodes the leptin receptor: identification of a mutation in the leptin receptor gene in db/db mice. Cell. 84 (3): 491-5. Bjrbæk C, et al. (1998) Divergent signaling capacities of the long and short isoforms of the leptin receptor. J Biol Chem. 272 (51): 32686-95.

NCBI AND UNIPROT INFORMATION

NCBI GI #	40254464
NCBI GeneID	3953
NCBI Accession #	NP_002294.2
NCBI GenBank Nucleotide #	NM_002303.5
UniProt Accession #	P48357; Q13592; Q13593; Q13594; Q92919; Q92920; Q92921
Molecular Weight	96,042 Da
NCBI Official Full Name	leptin receptor isoform 1
NCBI Official Synonym Full Names	leptin receptor
NCBI Official Symbol	LEPR
NCBI Official Synonym Symbols	OBR; OB-R; CD295; LEP-R; LEPRD
NCBI Protein Information	leptin receptor; huB219; OB receptor

UniProt Protein Name	Leptin receptor
UniProt Gene Name	LEPR
UniProt Synonym Gene Names	DB; OBR; LEP-R; OB-R
UniProt Entry Name	LEPR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-lepr-active-protein/leptin-receptor/257869>