Recombinant Mouse Leptin R Protein (Fc Tag)

RPES8463

Product Information

Product SKU:	RPES8463	**Expression Host**:	Mammalian	**Size**:	20µg
Tag:	C-Fc	**Reactivity**:	Mouse	**Accession**:	P48356

Additional Information

Calculated MW:	114.8 kDa	**Observed MW:**	115-125 kDa
Sequence:	Leu22-Gly839		

Protein Information

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.

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Synonyms:	HuB, CD295, HuB219, LEP-R, LEPRD, LR, OB receptor, Lepr, Db, Obr, OB-R, leptin receptor, OB-R
Endotoxin:	< 1.0 EU/mg of the protein as determined by the LAL method
Formulation:	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Purity:	> 90% as determined by reducing SDS-PAGE.
Bio-Activity:	Not validated for activity
Storage:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

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