

RPES8443

Product Information

Product SKU:	RPES8443	Expression Host:	Mammalian	Size:	20µg
Tag:	C-His	Reactivity:	Mouse	Accession:	P48356

Additional Information

Calculated MW:	89.9 kDa	Observed MW:	100-110 kDa
Sequence:	Leu22-Gly839		

Protein Information

Background: Leptin receptor (OB-R), also named B219, is a type I cytokine receptor family protein with a significant amino acid sequence identity with an gp130, G-CSF receptor, and the LIF receptor. Multiple isoforms of Human and Mouse OB-R, including a long form (OB-RL) with a large cytoplasmic domain capable of signal-transduction, and several receptor isoforms with short cytoplasmic domains (OB-Rs) lacking signal-transducing capabilities, have been identified. The extracellular domains of the short and long forms of OB-R are identical. An OB-R transcript lacking a transmembrane domain and potentially encoding a soluble form of the receptor has also been described. Circulating soluble OB-R, complexed to leptin, has been detected in Mouse serum. Serum soluble OB-R levels have been shown to increase during pregnancy. OB-RL transcripts were reported to be expressed predominantly in regions of the hypothalamus previously thought to be important in body weight regulation. Expression of OB-Rs transcripts have been found in multiple tissues, including the choroid plexus, lung, kidney and primitive hematopoietic cell populations. OB-R has recently been shown to be encoded by the Mouse diabetes (db) and rat fatty (fa) genes. Rodents homozygous for the db or fa mutations have been known to exhibit an obesity phenotype. Mouse OB-R long form encodes a 1162 amino acid (aa) residue precursor protein with a 22 aa residue signal peptide, an 817 aa residue extracellular domain, a 21 aa residue transmembrane domain, and a

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302 aa residue cytoplasmic domain. The extracellular domain of OB-R contains two hemopoietin receptor domains, a fibronectin type III domain and the WSXWS domain. Recombinant murine soluble OB-R has been shown to bind leptin with an high affinity and is a potent leptin antagonist.

Synonyms:	CD 295, CD295, CD295 antigen, Db, Fa, HuB219, LEP R, LEP-R, LEPR, LEPR, LEPRD, Leptin receptor, Leptin receptor fatty, Leptin receptor gene related protein, Leptin receptor precursor, Leptin receptor precursor, OB R gene related protein, OB receptor, OB-R, OB-RGRP, obl, Obr
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°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.