

## 37-1107: Human Leptin Receptor / LEPR / CD295 Recombinant Protein (His Tag)(Discontinued)

**Reactivity :** Human

**Alternative Name :** CD295 Protein, LEP-R Protein, LEPRD Protein, OB-R Protein, OBR Protein,

### Description

#### Source : HEK293 Cells

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.

### Product Info

**Amount :** Human Leptin Receptor / LEPR / CD295 Recombinant Protein (His Tag)(Discontinued) / 200 µg  
**Purification :** > 95 % as determined by SDS-PAGE  
**Content :** Formulation Lyophilized from sterile PBS, pH 7.4  
 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.  
**Storage condition :** Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.  
**Amino Acid :** Met1-Asp839

### Application Note

Measured by its binding ability in a functional ELISA . Immobilized human Leptin at 5 Åµg/ml (100 ÅµL/well) can bind human Leptin receptor with a linear range of 0.032-4.0 Åµg/ml.  
 Endotoxin :< 1.0 EU per Åµg of the protein as determined by the LAL method

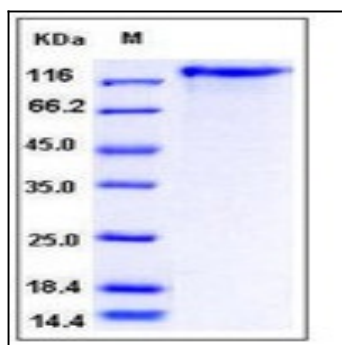


Fig 1: Human Leptin Receptor / LEPR / CD295 Recombinant Protein (His Tag)