

## Recombinant Mouse Leptin Receptor/LEPR/CD295 (C-mFc)

**Catalog Number:** PKSM041412

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

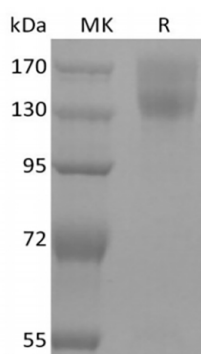
### Description

<b>Species</b>	Mouse
<b>Source</b>	HEK293 Cells-derived Mouse LEPR/CD295 protein Leu22-Gly839, with an C-terminal mFc
<b>Calculated MW</b>	118.5 kDa
<b>Observed MW</b>	130-190 kDa
<b>Accession</b>	P48356
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
<b>Reconstitution</b>	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

The Leptin receptor is a member of the Class I cytokine receptor family. It mediates the activities of Leptin, a multi-functional hormone produced primarily by adipose tissues that plays roles in food intake, energy metabolism, angiogenesis, reproduction, hematopoiesis, bone metabolism, and immune function. The human Leptin R gene encodes 1165 amino acids (aa) including a signal peptide, an extracellular region with cytokine receptor homology (CRH), multiple fibronectin type III domains and a WSXWS motif, a transmembrane domain, and a cytoplasmic domain that supports JAK/STAT signaling. Soluble Leptin R is the primary Leptin-binding protein in blood, where it maintains a pool of available bioactive Leptin, delays Leptin clearance from circulation, and down-regulates blood-brain transmission of Leptin. In humans, soluble Leptin R levels are inversely proportional to adiposity and are elevated in females versus males. Soluble Leptin R is also found up-regulated in patients with chronic heart failure, end-stage renal disease, and anorexia. It is expressed by tumor-initiating stem cells, and is proposed as a link between cancer and obesity.