

Recombinant Human LEPR

Catalog No: CU14

Description	Recombinant Human Leptin Receptor is produced by our Mammalian expression system and the target gene encoding Phe22-Asp839 is expressed with a 10His tag at the C-terminus.
Source	Human Cells
Alternative name	Leptin receptor; LEP-R; HuB219; OB receptor; OB-R; CD295; LEPR; DB; OBR
Accession No.	P48357
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.
Quality Control	Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/µg (1 IEU/µg).
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

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.

SDS-PAGE

