

Product datasheet for **TP726716**

Leptin Receptor (LEPR) Human Recombinant Protein

Product data:

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| Product Type: | Recombinant Proteins |
| Description: | Recombinant Human LEPR (C-Fc) |
| Species: | Human |
| Expression cDNA Clone or AA Sequence: | Phe22-Asp839 |
| Tag: | C-Fc |
| Buffer: | Lyophilized from a 0.2 um filtered solution of PBS, pH 7.4. |
| Note: | Recombinant Human Leptin Receptor is produced by our Mammalian expression system and the target gene encoding Phe22-Asp839 is expressed with a Fc tag at the C-terminus. |
| 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. |
| Stability: | 12 months from date of despatch |
| Locus ID: | 3953 |
| UniProt ID: | <u>P48357</u> |
| Synonyms: | Leptin receptor; LEP-R; HuB219; OB receptor; OB-R; CD295; LEPR; DB; OBR |
| Summary: | 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. |


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| Protein Families: | Druggable Genome, Secreted Protein, Transmembrane |
| Protein Pathways: | Adipocytokine signaling pathway, Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction |