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Leptin Receptor, human recombinant protein

OB Protein, Obesity Protein, OBS, Obesity factor

Catalog # PBV10321r

Specification

Leptin Receptor, human recombinant protein - Product info

Primary Accession	P41159
Calculated MW	**95.0 kDa (predicted) 130-140 kDa on a gel. KDa**

Leptin Receptor, human recombinant protein - Additional Info

Gene ID	**3952**
Gene Symbol	**LEP**

Other Names

OB Protein, Obesity Protein, OBS, Obesity factor, HuB219, OB receptor, CD_antigen=CD295

Gene Source	**Human**
Source	**Human**
Assay&Purity	**SDS-PAGE; ≥95%**
Assay2&Purity2	**HPLC;**
Recombinant	**Yes**
Sequence	**A DNA sequence encoding the extracellular domain (Met 1 - Asp 839) of human leptin receptor (NP_002294.2) was expressed and fused with a C-terminal polyhistidine tag. Predicted NT sequence is Phe 22.**

Target/Specificity

Leptin Receptor

Application Notes

Centrifuge the vial prior to opening. The lyophilized Leptin Binding Domain is very soluble in H_2O and most aqueous buffers below and above the isoelectric point (~ 5.9).

Format

Lyophilized protein

Storage

-70°C; Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization.

Leptin Receptor, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot

- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Leptin Receptor, human recombinant protein - Images

Leptin Receptor, human recombinant protein - Background

Leptin receptor (LEPR), also known as OB-R and B219, is a single transmembrane-domain receptor of the cytokine receptor family. Leptin receptor exists as homodimer and binds Leptin with high affinity, thus mediates the biological function of the adipocyte-specific hormone Leptin. LEPR is expressed at high levels in hematopoietic stem cells, lymphohematopoietic cell lines, as well as adult reproductive organs. Several isoforms of LEPR have been identified, and LEPR structurally contains two hemopoietin receptor domains, a fibronectin type III domain and a WSXWS domain within the extracellular region. Interaction of leptin and leptin receptor is crucial for bodyweight and bone mass regulation in mammals through hypothalamic effects on satiety and energy expenditure. Meanwhile, research data supports a leptin receptor activation model based on ligand-induced conformational changes.

Leptin Receptor, human recombinant protein - References

Zhang Y.,et al.Nature 372:425-432(1994).
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Masuzaki H.,et al.Diabetes 44:855-858(1995).
Gong D.W.,et al.J. Biol. Chem. 271:3971-3974(1996).
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