# Human Leptin R / CD295 Protein, Fc Tag

Catalog # LER-H5252



#### Synonym

LEPR,CD295,DKFZp686B1731,OBR,Leptin receptor

#### Source

Human Leptin R, Fc Tag(LER-H5252) is expressed from human 293 cells (HEK293). It contains AA Phe 22 - Asp 839 (Accession # <u>P48357-1</u>). Predicted N-terminus: Phe 22

### **Molecular Characterization**

Leptin R(Phe 22 - Asp 839) Fc(Pro 100 - Lys 330) P48357-1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 119.6 kDa. The protein migrates as 150-165 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

# Purity

>90% as determined by SDS-PAGE.

#### Formulation

Lyophilized from  $0.22 \ \mu m$  filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

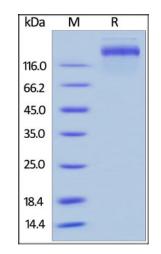
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- $-70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Human Leptin R, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

## Background

Leptin receptor (LEPR) is also known as LEP-R, cluster of differentiation 295 (CD295), OB-R and B219, is a single-transmembrane-domain receptor of the gp130 family of cytokine receptors. Leptin receptor exists as homodimer and binds Leptin with high affinity, thus mediates the biological function of the adipocyte-specific hormone Leptin. LEPR 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. Mutations in this protein have been associated with obesity and pituitary



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dysfunction. Interaction of leptin and leptin receptor is crucial for body weight 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.

#### **Clinical and Translational Updates**

Please contact us via <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.



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