

Product datasheet

Recombinant human Leptin Receptor protein ab155615

1 Image

Overview

Product name	Recombinant human Leptin Receptor protein
Protein length	Protein fragment

Description

Nature	Recombinant
Source	HEK 293 cells
Amino Acid Sequence	
Accession	P48357
Species	Human
Sequence	<p>FNLSYPITPWRFKLSCMPPNSTYDYFLLPAGLSKNTSN SNGHYETAVEPK FNSSGTHFSN LSKTTFHCCFRSEQDRNCSLCADNIEGKTFVSTVNSL V FQQIDANWNIQCWLKGDCLKFI CYVESLFKNLFRNYYKVVHLLYVLPE VLEDSPLVPQKGSFQMVHCNCSVHECCECLVPVP TAKLNDTLLMCLKI TSGGVIFQSPLMSVQPINMVKPDPLGLHMEITDDGNL KISWSSPP LV PFPLQYQVKYSENSTTVIREADKVSATSLLVDSILPGS SYEVQVRGKRL DPGWSD WSTPRVFTTQDVYFPPKILTSVGSNVSFHCYKKNKIV PSKEVWWMNLAEKIPQSQY DVVSDHVSKVTFNLSNETKPRGKFTYDA VYCCNEHECHRYAELYVIDVNINISCETDGY LTKMTCRWSTSTIQSL AESTLQLRYHRSSLYCSDIPSIHPISEPKDCYLQSDGFY ECIFQ PIFL LSGYTMWIRINHSLGSLDSPPTCVLPDSVVKPLPPSSV KAEITINIGLLK ISWEKP VFPENNLQFQIRYGLSGKEVQWKMYEVYDAKSKSVSL PVPDL CAVYAVQVRCKRLDGLGY WSNWSNPAYTVVMDIKVPMRGPEFWRIING</p>

DTMKKEKNVTLLWKPLMKNDLCSVQRYVI
NHTSCNGTWSEVDGNHT
KFTFLWTEQAHTVTVLAINSIGASVANFNLTFSWPMSK
VNIV QLSAY
PLNSSCVVSWILSPSDYKLMYFIIIEWKNLNEDGEIKWL
RISSSVKKYYI HDHF
IPIEKYQFSLYPIFMEGVGKPKIINSFTQDDIEKHQSD

Molecular weight 121 kDa including tags
Amino acids 22 to 839

Specifications

Our [Abpromise guarantee](#) covers the use of **ab155615** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Biological activity Measured by its ability to inhibit Leptin-dependent proliferation of BaF3 mouse pro-B cells transfected with Leptin Receptor-Fc. The ED₅₀ for this effect is typically 0.015-0.13 µg/ml in the presence of 3 ng/ml rhLeptin.

Applications Functional Studies
SDS-PAGE

Endotoxin level < 1.000 Eu/µg

Purity >95% by SDS-PAGE .

Form Lyophilised

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.40

Constituent: 99% PBS

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function Receptor for obesity factor (leptin). On ligand binding, mediates signaling through JAK2/STAT3. Involved in the regulation of fat metabolism and, in a hematopoietic pathway, required for normal lymphopoiesis. May play a role in reproduction. Can also mediate the ERK/FOS signaling pathway.

Tissue specificity Isoform A is expressed in fetal liver and in hematopoietic tissues and choroid plexus. In adults highest expression in heart, liver, small intestine, prostate and ovary. Low level in lung and kidney. Isoform B is highly expressed in hypothalamus.

Sequence similarities Belongs to the type I cytokine receptor family. Type 2 subfamily.
Contains 4 fibronectin type-III domains.
Contains 1 Ig-like (immunoglobulin-like) domain.

Domain The cytoplasmic domain may be essential for intracellular signal transduction by activation of JAK

tyrosine kinase and STATs.

The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding.

The box 1 motif is required for JAK interaction and/or activation.

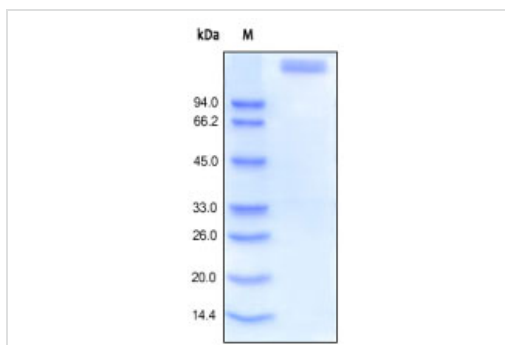
Post-translational modifications

On ligand binding, phosphorylated on two conserved C-terminal tyrosine residues (isoform B only) by JAK2. Tyr-986 is required for complete binding and activation of PTPN11, ERK/FOS activation and, for interaction with SOCS3 (By similarity). Phosphorylation on Tyr-1141 is required for STAT3 binding/activation.

Cellular localization

Secreted and Cell membrane.

Images



SDS-PAGE - Recombinant human Leptin Receptor protein (ab155615)

The purity of ab155615 was determined by SDS-PAGE of reduced Leptin Receptor-Fc and staining overnight with Coomassie Blue.

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