Active Recombinant Human LEPR Protein, His&Avi tagged

Cat. No. LEPR-75H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	ObR protein dimer contains an ObR extracellular domain (UniProt# P48357) fused with a proprietary cis-dimer motif followed by a tandem His-Avi tag at the C-terminus.
Species	Human
Source	HEK293T
ProteinLength	22-839 aa
Description	Human obesity receptor (ObR) is a Type I transmembrane receptor belonging to the cytokine receptor family. ObR is the receptor of leptin, a hormone secreted by fat cells that plays a crucial role in regulating appetite, metabolism, and energy homeostasis. ObR is also known as OB-R, leptin receptor (LEPR), LEPRD, and cluster of differentiation 295 (CD295). ObR contains an extracellular domain with an N-terminal cytokine receptor homology domain (CRH-1); an immunoglobulin-like (Ig-like) domain; a second CRH domain (CRH-2), also referred to as the leptin-binding domain (LBD); and two fibronectin type III (FNIII) domains followed by a transmembrane domain and cytoplasmic domain. ObR functions as a dimer to mediate leptin signaling. ObR binds leptin and its activity regulates adipose-tissue mass making ObR an attractive target when it comes to combating obesity.
Molecular Mass	207 kDa
Homodimer/Heterodimer	Homodimer

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition
Application	Verified Applications: ELISA for ObR-specific antibody and leptin ligand protein binding assays. Suggested Applications: ELISA for ObR-specific antibody and leptin ligand protein binding assays. SPR & BLI for ObR-specific antibody and leptin protein binding assays. Animal immunization, RUO.
Storage	At -80 centigrade
Storage Buffer	0.2μm filtered PBS, pH 7.4, no preservatives
Shipping	Frozen Dry Ice

GENE INFORMATION

Gene Name 2	LEPR leptin receptor [Homo sapiens (human)]
Official Symbol 2	LEPR
Synonyms 2	LEPR; leptin receptor; CD295; OBR; huB219; OB receptor; OB-R; LEP-R; DKFZp686B1731;
Gene ID 2	3953
mRNA Refseq 2	NM_001003679
Protein Refseq 2	NP_001003679
MIM 2	601007

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UniProt ID 2	P48357
Gene Name	IL2RG interleukin 2 receptor, gamma [Homo sapiens (human)]
Official Symbol	IL2RG
Synonyms	IL2RG; interleukin 2 receptor, gamma; CIDX, combined immunodeficiency, X linked, IMD4, SCIDX1, severe combined immunodeficiency; cytokine receptor common subunit gamma; CD132; gammaC; gamma(c); CD132 antigen; common gamma-chain; IL-2R subunit gamma; IL-2 receptor subunit gamma; severe combined immunodeficiency; combined immunodeficiency, X-linked; common cytokine receptor gamma chain; interleukin-2 receptor subunit gamma; P64; CIDX; IMD4; SCIDX; IL-2RG; SCIDX1;
Gene ID	3561
mRNA Refseq	NM_000206
Protein Refseq	NP_000197
MIM	308380
UniProt ID	P31785
Bioactivity-Antibody Binding	Immobilized human ObR-His-Avi protein dimer at 2 μg/mL (100 μL/well) can bind anti-human ObR monoclonal antibody with half maximal effective concentration (EC50) range of 16.8-67.2 ng/mL (QC tested).

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Bioactivity-Ligand Binding	Immobilized human Leptin at 2 μg/mL (100 μL/well) can bind human ObR-His-Avi protein dimer with half maximal effective concentration (EC50) range of 0.1-0.5 μg/mL (QC tested).
SDS-PAGE	

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