Recombinant Human Leptin R Fc Chimera
Catalog Number: 389-LR/CF

DESCRIPTION
Source Mouse myeloma cell line, NS0-derived

| Human Leptin R | IIEGR | Human IgG1 | 6-His tag |
| (Thr20-Asp839) | P48357 | (Pro100-Lys330) |

N-terminal Sequence Thr20

Structure / Form Disulfide-linked homodimer

Predicted Molecular Mass 121 kDa (monomer)

SPECIFICATIONS

| SDS-PAGE | 155-175 kDa, reducing conditions |
| Activity | Measured by its ability to inhibit Leptin-dependent proliferation of BaF3 mouse pro-B cells transfected with human Leptin R. The ED50 for this effect is 0.02-0.12 µg/mL in the presence of 3 ng/mL Recombinant Human Leptin/OB (Catalog # 386-LP). |
| Endotoxin Level | <0.10 EU per 1 µg of the protein by the LAL method. |
| Purity | >97%, by SDS-PAGE under reducing conditions and visualized by silver stain. |
| Formulation | Lyophilized from a 0.2 µm filtered solution in MES, NaCl and CHAPS. See Certificate of Analysis for details. |

PREPARATION AND STORAGE

Reconstitution Reconstitute at 200 µg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The Leptin receptor (Leptin R, gene name LEPR), also called OB R (obesity receptor), is a 150 kDa protein that 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 (1-3). 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 (2, 3). Human Leptin R shares 76% aa sequence identity with mouse and rat Leptin R, and 83-86% with bovine, canine, equine and porcine Leptin R. Leptin R isoforms include a long form, OB RL or OB Rb (primary signaling form), and at least four shorter isoforms with truncated cytoplasmic domains, named OB Ra (ubiquitous), Rc, Rd, and Re (2, 4). A soluble isoform, OB Re, is found in rodents but not humans (5). However, both canine, equine and porcine Leptin R. Leptin R isoforms include a long form, OB RL or OB Rb (primary signaling form), and at least four shorter isoforms with truncated cytoplasmic domains, named OB Ra (ubiquitous), Rc, Rd, and Re (2, 4). A soluble isoform, OB Re, is found in rodents but not humans (5). However, both

References:

Rev. 2/6/2018 Page 1 of 1