**Description**

**Species Reactivity** Human

**Specificity** Detects human Leptin R in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant mouse Leptin R is observed.

**Source** Monoclonal Mouse IgG₂B Clone # 52263

**Purification** Protein A or G purified from ascites

**Immunogen** Mouse myeloma cell line NS0-derived recombinant human Leptin R Phe22-Asp839 (predicted)

**Accession #** P48357

**Conjugate** Allophycocyanin

**Excitation Wavelength:** 620-650 nm

**Emission Wavelength:** 660-670 nm

**Formulation** Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.

*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

**Applications**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tr>
<td>10 µL/10⁶ cells</td>
<td>See Below</td>
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**Flow Cytometry**

Detection of Leptin R in Human Blood Monocytes by Flow Cytometry. Human peripheral blood monocytes were stained with Mouse Anti-Human Leptin R APC-conjugated Monoclonal Antibody (Catalog # FAB867A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). View our protocol for Staining Membrane-associated Proteins.

**Preparation and Storage**

Shipping: The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage: Protect from light. Do not freeze.

- 12 months from date of receipt, 2 to 8 °C as supplied.

**Background**

Leptin receptor (OB-R), also named B219, is a type I cytokine receptor family protein with significant amino acid sequence identity with gp130, G-CSF receptor, and the LIF receptor. Multiple isoforms of human and mouse OB-R, including a long form (OB-Rₗ) with a large cytoplasmic domain capable of signal-transduction, and several receptor isoforms with short cytoplasmic domains (OB-Rₛ) lacking signal-transducing capabilities, have been identified. The extracellular domains of the short and long forms of OB-R are identical. An OB-R transcript, lacking a transmembrane domain and potentially encoding a soluble form of the receptor, has also been described. OB-Rₛ transcripts were reported to be expressed predominantly in regions of the hypothalamus previously thought to be important in body weight regulation. Expression of OB-Rₛ transcripts have been found in multiple tissues, including the choroid plexus, lung, kidney, and primitive hematopoietic cell populations. OB-R has been shown to be encoded by the mouse diabetes (db) and rat fatty (fa) genes. Rodents homozygous for the db or fa mutations have been known to exhibit an obesity phenotype. Human OB-R long form encodes a 1165 amino acid (aa) precursor protein with a 22 aa signal peptide, an 819 aa extracellular domain, a 21 aa transmembrane domain and a 303 aa cytoplasmic domain. The extracellular domain of OB-R contain two hemopoietin receptor domains, a fibronectin type III domain and the WSXWS domain. Recombinant soluble OB-R has been shown to bind Leptin with high affinity and is a potent Leptin antagonist.

**Data**

**Flow Cytometry**

Detection of Leptin R in Human Blood Monocytes by Flow Cytometry. Human peripheral blood monocytes were stained with Mouse Anti-Human Leptin R APC-conjugated Monoclonal Antibody (Catalog # FAB867A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). View our protocol for Staining Membrane-associated Proteins.