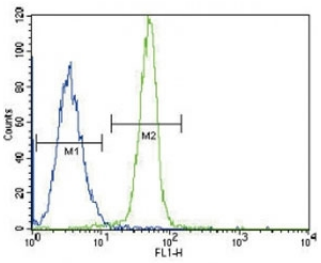
Leptin Receptor Polyclonal Antibody / Ob-R Rabbit Antibody (F49459)

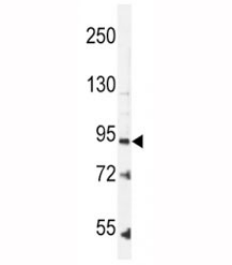
Catalog No.	Formulation	Size
F49459-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F49459-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

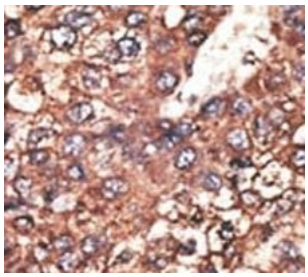
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P48357
Applications	Western Blot : 1:1000 Flow Cytometry : 1:10-1:50 IHC (Paraffin) : 1:50-1:100
Limitations	This Leptin Receptor Polyclonal Antibody / Ob-R Rabbit Antibody is available for research use only.



Leptin Receptor Polyclonal Antibody by FACS in human K562 cells. Flow cytometric analysis of human K562 cells using Leptin Receptor Polyclonal Antibody. The antibody-stained population (green) shows a distinct rightward fluorescence shift compared with the negative control (blue), demonstrating increased fluorescence associated with antibody binding. FITC-conjugated goat anti-rabbit IgG was used for detection. This Ob-R Rabbit Antibody recognizes leptin receptor (LEPR/CD295), a cytokine receptor involved in JAK/STAT signaling and metabolic regulation.



Leptin Receptor Polyclonal Antibody by WB in human K562 cells. Western blot analysis of human K562 cell lysate using Leptin Receptor Polyclonal Antibody. An immunoreactive band is detected at approximately 90-95 kDa, below the expected molecular weight of full-length LEPR. Multiple leptin receptor isoforms have been described, including shorter forms reported near 90-100 kDa in published western blot studies. The observed band may represent a shorter LEPR isoform, although its identity has not been independently confirmed. This Ob-R Rabbit Antibody targets an extracellular region shared by multiple leptin receptor isoforms.



Leptin Receptor Polyclonal Antibody by IHC in human hepatocarcinoma. Immunohistochemistry of FFPE human hepatocarcinoma tissue using Leptin Receptor Polyclonal Antibody. Brown DAB staining is observed in numerous tumor cells, predominantly within the cytoplasm, with variable staining intensity across the tissue section. The experiment demonstrates immunoreactivity in human hepatocarcinoma tissue, although the staining pattern alone does not establish LEPR specificity. This Ob-R Rabbit Antibody targets leptin receptor (CD295), a cytokine receptor involved in JAK/STAT signaling and metabolic regulation.

Description

Leptin Receptor Polyclonal Antibody recognizes leptin receptor (LEPR), also known as Ob-R or CD295, a transmembrane receptor that mediates the physiological actions of leptin. Leptin is produced primarily by adipose tissue and communicates information about energy availability to the central nervous system and peripheral organs. LEPR belongs to the class I cytokine receptor family and participates in regulating food intake, energy expenditure, glucose metabolism, and endocrine function. The Ob-R Rabbit Antibody targets a receptor that connects hormonal signaling with metabolic homeostasis.

The human LEPR gene is located on chromosome 1p31.3 and produces multiple receptor isoforms through alternative splicing. These isoforms share an extracellular leptin-binding domain but differ in their intracellular regions and signaling capabilities. The long isoform, LEPRb or Ob-Rb, contains an extended cytoplasmic domain required for efficient activation of several downstream pathways. Shorter isoforms participate in leptin transport and other receptor-associated functions. Although LEPR lacks intrinsic kinase activity, it associates with intracellular signaling proteins that transmit signals following leptin binding.

Activation of LEPR promotes signaling through receptor-associated Janus kinase 2 (JAK2), initiating phosphorylation events that recruit downstream regulatory proteins. STAT3 is a major mediator of leptin-dependent transcriptional responses associated with appetite suppression and energy balance. LEPR can also activate STAT5, PI3K/AKT, and MAPK pathways, depending on cellular context. Negative regulators, including SOCS3 and PTP1B, help control receptor signaling and maintain physiological balance. The Ob-R Rabbit Antibody is relevant to research examining these interconnected pathways.

LEPR signaling is particularly important in hypothalamic neuronal circuits that regulate feeding behavior, energy expenditure, and neuroendocrine responses. The receptor also contributes to reproductive physiology, immune regulation, and peripheral metabolic function. Genetic defects affecting LEPR can cause severe early-onset obesity and associated endocrine abnormalities. Reduced responsiveness to circulating leptin, commonly described as leptin resistance, is investigated in obesity, insulin resistance, and other metabolic disorders.

Research involving LEPR contributes to understanding hormonal regulation, metabolic homeostasis, cytokine receptor signaling, and communication between adipose tissue and other organs. Its role in JAK/STAT signaling connects leptin receptor biology with broader mechanisms of intracellular communication. NSJ Bioreagents offers antibodies targeting proteins involved in metabolism and signal transduction. A Leptin Receptor Polyclonal Antibody provides a research tool for investigating leptin receptor expression and its relationship to energy balance, endocrine regulation, and cellular

signaling.

For an alternative monoclonal antibody targeting this receptor, see our LEPR Antibody.

Application Notes

Titration of the Leptin Receptor Polyclonal Antibody / Ob-R Rabbit Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 23-52 from the human protein was used as the immunogen for this Leptin Receptor Polyclonal Antibody.

Storage

Aliquot the Leptin Receptor Polyclonal Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

LEPR antibody, Ob-R antibody, CD295 antibody, Leptin Receptor Rabbit antibody, Leptin Binding Receptor antibody, Leptin Receptor Protein antibody

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