

Anti-CSF1R/M-CSFR Antibody
Catalog # ABO11209**Specification**

Anti-CSF1R/M-CSFR Antibody - Product Information

Application	WB
Primary Accession	P07333
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Macrophage colony-stimulating factor 1 receptor(CSF1R) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CSF1R/M-CSFR Antibody - Additional Information

Gene ID 1436

Other Names

Macrophage colony-stimulating factor 1 receptor, CSF-1 receptor, CSF-1-R, CSF-1R, M-CSF-R, 2.7.10.1, Proto-oncogene c-Fms, CD115, CSF1R, FMS

Calculated MW

107984 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Cell membrane; Single-pass type I membrane protein.

Tissue Specificity

Expressed in bone marrow and in differentiated blood mononuclear cells.

Protein Name

Macrophage colony-stimulating factor 1 receptor

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human MCSF Receptor(955-972aa EQGDIAQPLLQPNNYQFC), different from the related mouse sequence by one amino acid and from the related rat sequence by two amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.

Anti-CSF1R/M-CSFR Antibody - Protein Information

Name CSF1R

Synonyms FMS

Function

Tyrosine-protein kinase that acts as a cell-surface receptor for CSF1 and IL34 and plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. Promotes the release of pro-inflammatory chemokines in response to IL34 and CSF1, and thereby plays an important role in innate immunity and in inflammatory processes. Plays an important role in the regulation of osteoclast proliferation and differentiation, the regulation of bone resorption, and is required for normal bone and tooth development. Required for normal male and female fertility, and for normal development of milk ducts and acinar structures in the mammary gland during pregnancy. Promotes reorganization of the actin cytoskeleton, regulates formation of membrane ruffles, cell adhesion and cell migration, and promotes cancer cell invasion. Activates several signaling pathways in response to ligand binding, including the ERK1/2 and the JNK pathway (PubMed: [20504948](http://www.uniprot.org/citations/20504948) target="_blank">20504948, PubMed: [30982609](http://www.uniprot.org/citations/30982609) target="_blank">30982609). Phosphorylates PIK3R1, PLCG2, GRB2, SLA2 and CBL. Activation of PLCG2 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate, that then lead to the activation of protein kinase C family members, especially PRKCD. Phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leads to activation of the AKT1 signaling pathway. Activated CSF1R also mediates activation of the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1, and of the SRC family kinases SRC, FYN and YES1. Activated CSF1R transmits signals both via proteins that directly interact with phosphorylated tyrosine residues in its intracellular domain, or via adapter proteins, such as GRB2. Promotes activation of STAT family members STAT3, STAT5A and/or STAT5B. Promotes tyrosine phosphorylation of SHC1 and INPP5D/SHIP-1. Receptor signaling is down-regulated by protein phosphatases, such as INPP5D/SHIP-1, that dephosphorylate the receptor and its downstream effectors, and by rapid internalization of the activated receptor. In the central nervous system, may play a role in the development of microglia macrophages (PubMed: [30982608](http://www.uniprot.org/citations/30982608) target="_blank">30982608).

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

Expressed in bone marrow and in differentiated blood mononuclear cells

Anti-CSF1R/M-CSFR Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-CSF1R/M-CSFR Antibody - Images



Anti-MCSF Receptor antibody, ABO11209, Western blottingWB: Rat Intestine Tissue Lysate

Anti-CSF1R/M-CSFR Antibody - Background

CSF1R(Colony-Stimulating Factor 1 Receptor) also known as MCSFR, FMS, c-FMS, CD115, ONCOGENE FMS or CD115 ANTIGEN, encodes a tyrosine kinase growth factor receptor for colony-stimulating factor-1, the macrophage-and monocyte-specific growth factor. The gene is located on long arm of chromosome 5(5q32) on the Crick(minus) strand. The as-yet-unidentified CSF1 Rpromoter/enhancer sequences may be confined to the nucleotides separating the 2 genes or could potentially lie within the PDGFR gene itself. The encoded protein is a single pass type I membrane protein and acts as the receptor for colony stimulating factor 1, a cytokine which controls the production, differentiation, and function of macrophages. The encoded protein is a tyrosine kinase transmembrane receptor and member of the CSF1/PDGF receptor family of tyrosine-protein kinases. Kondo et al.(2000) showed that the endogenous myelomonocytic cytokine receptors for GM-CSF and macrophage colony-stimulating factor(CSF1R) are expressed at low to moderate levels on the more primitive hematopoietic stem cells, are absent on common lymphoid progenitors, and are upregulated after myeloid lineage induction by IL2.