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CSF1R Antibody (Ascites)

Mouse Monoclonal Antibody (Mab)
Catalog # AM1875a

Specification

CSF1R Antibody (Ascites) - Product Information

Application	**WB,E**
Primary Accession	P07333
Other Accession	NP_005202.2
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1,IGM,K**

CSF1R Antibody (Ascites) - Additional Information

Gene ID 1436

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

Target/Specificity
This CSF1R Monoclonal antibody was raised using purified His-tagged recombinant human CSF1R.

Dilution
WB~~1:1000

Format
Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CSF1R Antibody (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

CSF1R Antibody (Ascites) - 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, PubMed: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).

Cellular Location
Cell membrane; Single-pass type I membrane protein

Tissue Location
Expressed in bone marrow and in differentiated blood mononuclear cells

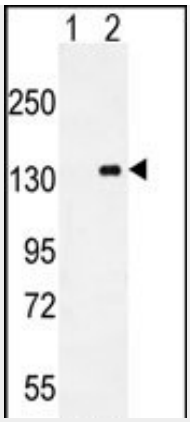
CSF1R Antibody (Ascites) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CSF1R Antibody (Ascites) - Images

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Western blot analysis of CSF1R (arrow) using mouse Monoclonal CSF1R (Cat. #AM1875a). 293 cell lysates (2 µg/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CSF1R gene.

CSF1R Antibody (Ascites) - Background

The protein encoded by this gene is the receptor for colony stimulating factor 1, a cytokine which controls the production, differentiation, and function of macrophages. This receptor mediates most if not all of the biological effects of this cytokine. Ligand binding activates the receptor kinase through a process of oligomerization and transphosphorylation. The encoded protein is a tyrosine kinase transmembrane receptor and member of the CSF1/PDGF receptor family of tyrosine-protein kinases. Mutations in this gene have been associated with a predisposition to myeloid malignancy. The first intron of this gene contains a transcriptionally inactive ribosomal protein L7 processed pseudogene oriented in the opposite direction. [provided by RefSeq].

CSF1R Antibody (Ascites) - References

Shin, E.K., et al. Hum. Genet. 128(3):293-302(2010)
Wei, S., et al. J. Leukoc. Biol. 88(3):495-505(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Paniagua, R.T., et al. Arthritis Res. Ther. 12 (1), R32 (2010) :
Wooten, E.C., et al. PLoS ONE 5 (1), E8830 (2010) :