

Mouse Csf1r Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13911b

Specification

Mouse Csf1r Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Antigen Region IF, WB, IHC-P,E <u>P09581</u> <u>000495</u>, <u>NP_001032948.2</u> Mouse, Rat Rat Rat Rabbit Polyclonal Rabbit IgG 895-923

Mouse Csf1r Antibody (C-term) - Additional Information

Gene ID 12978

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, Csfmr, Fms

Target/Specificity

This Mouse Csf1r antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 895-923 amino acids from the C-terminal region of mouse Csf1r.

Dilution IF~~1:25 WB~~1:1000-2000 IHC-P~~1:25

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Mouse Csf1r Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Csf1r Antibody (C-term) - Protein Information

Name Csf1r



Synonyms Csfmr, 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 INK pathway (By similarity). Phosphorylates PIK3R1, PLCG2, GRB2, SLA2 and CBL. Activation of PLCG2 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5trisphosphate, 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 (By similarity).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Note=The autophosphorylated receptor is ubiquitinated and internalized, leading to its degradation

Tissue Location Widely expressed..

Mouse Csf1r Antibody (C-term) - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Mouse Csf1r Antibody (C-term) - Images





Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized NIH/3T3 cells labeling Csf1r with AP13911B at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image showing Cytoplasm staining on NIH/3T3 cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin(red). The nuclear counter stain is DAPI (blue).



Mouse Csf1r Antibody (C-term) (Cat. #AP13911b) western blot analysis in mouse heart tissue lysates (35ug/lane). This demonstrates the Csf1r antibody detected the Csf1r protein (arrow).



All lanes : Anti-Mouse Csf1r Antibody (C-term) at 1:1000 dilution Lane 1: Mouse heart lysate Lane 2: Mouse skeletal muscle lysate Lane 3: Rat skeletal muscle lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 109 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-Mouse Csf1r Antibody (C-term) at 1:1000-2000 dilution Lane 1: Mouse heart tissue lysate Lane 2: Mouse skeletal muscle tissue lysate Lane 3: Mouse spleen tissue lysate Lane 4: Rat brain tissue lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 109 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP13911b staining Mouse Csf1r in mouse lung tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

Mouse Csf1r Antibody (C-term) - Background

Csf1r is a protein tyrosine-kinase transmembrane receptor for CSF1 and IL34.

Mouse Csf1r Antibody (C-term) - References



Gueller, S., et al. J. Leukoc. Biol. 88(4):699-706(2010) Nagamachi, A., et al. Dev. Biol. 345(2):226-236(2010) Wei, S., et al. J. Leukoc. Biol. 88(3):495-505(2010) Maitra, R., et al. J. Immunol. 185(3):1485-1491(2010) Aikawa, Y., et al. Nat. Med. 16(5):580-585(2010)