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Mouse Csf1r Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13911b

Product Information

Application	IF, WB, IHC-P, E
Primary Accession	P09581
Other Accession	Q00495, NP_001032948.2
Reactivity	Rat, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34462
Calculated MW	109179
Antigen Region	895-923

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 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
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.

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 JNK 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 1,4,5- 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 (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..

Background

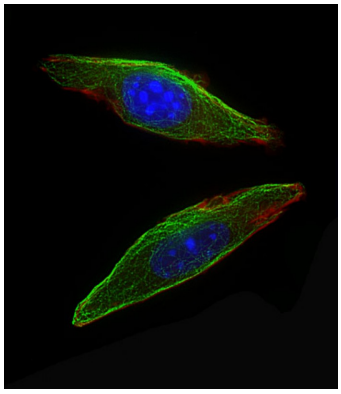
Csf1r is a protein tyrosine-kinase transmembrane receptor for CSF1 and IL34.

References

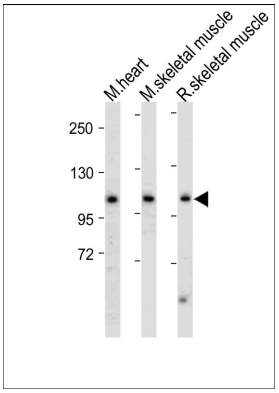
Gueller, S., et al. J. Leukoc. Biol. 88(4):699-706(2010)
Nagamachi, A., et al. Dev. Biol. 345(2):226-236(2010)
Wei, S., et al. J. Leukoc. Biol. 88(3):495-505(2010)
Maitra, R., et al. J. Immunol. 185(3):1485-1491(2010)
Aikawa, Y., et al. Nat. Med. 16(5):580-585(2010)

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).



All lanes : Anti-Mouse Csf1r Antibody (C-term) at 1:2000 dilution Lane 1: Mouse heart tissue lysate Lane 2: Mouse skeletal muscle tissue lysate Lane 3: Rat skeletal muscle tissue 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.