

Recombinant Cat Macrophage colony-stimulating factor 1 receptor(CSF1R),partial

Catalog No: #AP70195

Package Size: #AP70195-1 20ug #AP70195-2 100ug #AP70195-3 1mg

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Description

Product Name	Recombinant Cat Macrophage colony-stimulating factor 1 receptor(CSF1R),partial
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:20-514Sequence Info:Extracellular Domain
Other Names	CSF-1 receptor (EC:2.7.10.1) ;CSF-1-R ;CSF-1R ;M-CSF-RProto-oncogene c-Fms; CD115
Accession No.	P13369
Calculated MW	70.8 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	VPVIQPSGPELVVEPGTTVTLRCVGNQSVWDGPISPHWNLDLDPSSILTTNNATFQNTGTYHCTEPGNPQ GGNATIHLYVKDPAWPVKVLAQEVTVLEGQDALLPCLLTDPALAEAGVSLVRVRGRPVLRQTNYSFSPWHGFTI HKAKFIENHVVQCSARVDGRTVTSMGIWLKVQKDISGPATLTLEPAELVRIQGEAAQIVCSASNIDVNFVSLR HGDTKLTISQQSDFHDNRYQKVLTLNLDHVSFQDAGNYSCTATNAWGNHSASMVFRVVESAYLNLTSEQSL QEVTVGEKVLDLQVKVEAYPGLESFNWYTLGPFSDYQDKLDFVTIKDTYRYTSTLSLPRLRSEAGRYSFLARN AGGQNALTFELTLRYPPEVRVTMTLINGSDTLLCEASGYQPQSVTWVQCRSHTDRCDSEAGLVLEDSEVSL SQVPFHEVIVHSLLAIGTLEHNRTYECRAFNSVGNSSQTFWPISIGAHTQLPDELLFTP
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

Tyrosine-protein kinase that acts as 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 proinflammatory cytokines 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. 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.

References

Activation of the feline c-fms proto-oncogene multiple alterations are required to generate a fully transformed phenotype. Woolford J., McAuliffe A., Rohrschneider L.R. Cell 55:965-977(1988) Research Topic: Others

Note: This product is for in vitro research use only and is not intended for use in humans or animals.