Datasheet for ABIN3132689

CSF1R Protein (AA 537-977) (His tag)

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Overview

Quantity:	1 mg
Target:	CSF1R
Protein Characteristics:	AA 537-977
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CSF1R protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	KYKQKPKYQV RWKIIERYEG NSYTFIDPTQ LPYNEKWEFP RNNLQFGKTL GAGAFGKVVE ATAFGLGKED AVLKVAVKML KSTAHADEKE ALMSELKIMS HLGQHENIVN LLGACTHGGP VLVITEYCCY GDLLNFLRRK AEAMLGPSLS PGQDSEGDSS YKNIHLEKKY VRRDSGFSSQ GVDTYVEMRP VSTSSSDSFF KQDLDKEASR PLELWDLLHF SSQVAQGMAF LASKNCIHRD VAARNVLLTS GHVAKIGDFG LARDIMNDSN YVVKGNARLP VKWMAPESIF DCVYTVQSDV WSYGILLWEI FSLGLNPYPG ILVNNKFYKL VKDGYQMAQP VFAPKNIYSI MQSCWDLEPT RRPTFQQICF LLQEQARLER RDQDYANLPS SGGSSGSDSG GGSSGGSSSE PEEESSSEHL ACCEPGDIAQ PLLQPNNYQF C **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Csf1r Protein (raised in Insect Cells) purified by multi-step, protein-specific process to

Product Details

	ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	CSF1R
Alternative Name:	Csf1r (CSF1R Products)

Target Details

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 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. 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. {ECO:0000269|PubMed:10958675, ECO:0000269|PubMed:11756160, ECO:0000269|PubMed:1652061, ECO:0000269|PubMed:16950670, ECO:0000269|PubMed:17353186, ECO:0000269|PubMed:17420255, ECO:0000269|PubMed:17420256, ECO:0000269|PubMed:17972959, ECO:0000269|PubMed:18814279, ECO:0000269|PubMed:20181277, ECO:0000269|PubMed:20504948, ECO:0000269|PubMed:21610095, ECO:0000269|PubMed:21727904, ECO:0000269|PubMed:8007983, ECO:0000269|PubMed:8262059, ECO:0000269|PubMed:9312046}.
Molecular Weight:	50.2 kDa Including tag.
UniProt:	P09581
Pathways:	RTK Signaling, Inositol Metabolic Process, Cell-Cell Junction Organization

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

