Datasheet for ABIN3132528

PDGFRB Protein (AA 32-1098) (rho-1D4 tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PDGFRB
Protein Characteristics:	AA 32-1098
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PDGFRB protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	LVITPPGPEF VLNISSTFVL TCSGSAPVMW EQMSQVPWQE AAMNQDGTFS SVLTLTNVTG GDTGEYFCVY NNSLGPELSE RKRIYIFVPD PTMGFLPMDS EDLFIFVTDV TETTIPCRVT DPQLEVTLHE KKVDIPLHVP YDHQRGFTGT FEDKTYICKT TIGDREVDSD TYYVYSLQVS SINVSVNAVQ TVVRQGESIT IRCIVMGNDV VNFQWTYPRM KSGRLVEPVT DYLFGVPSRI GSILHIPTAE LSDSGTYTCN VSVSVNDHGD EKAINISVIE NGYVRLLETL GDVEIAELHR SRTLRVVFEA YPMPSVLWLK DNRTLGDSGA GELVLSTRNM SETRYVSELI LVRVKVSEAG YYTMRAFHED DEVQLSFKLQ VNVPVRVLEL SESHPANGEQ TIRCRGRGMP QPNVTWSTCR DLKRCPRKLS PTPLGNSSKE ESQLETNVTF WEEDQEYEVV STLRLRHVDQ PLSVRCMLQN SMGGDSQEVT VVPHSLPFKV VVISAILALV VLTVISLIIL IMLWQKKPRY EIRWKVIESV SSDGHEYIYV DPVQLPYDST WELPRDQLVL GRTLGSGAFG QVVEATAHGL SHSQATMKVA VKMLKSTARS SEKQALMSEL KIMSHLGPHL NVVNLLGACT KGGPIYIITE YCRYGDLVDY LHRNKHTFLQ RHSNKHCPPS AELYSNALPV GFSLPSHLNL TGESDGGYMD MSKDESIDYV

	PMLDMKGDIK YADIESPSYM APYDNYVPSA PERTYRATLI NDSPVLSYTD LVGFSYQVAN GMDFLASKNC VHRDLAARNV LICEGKLVKI CDFGLARDIM RDSNYISKGS TYLPLKWMAP ESIFNSLYTT LSDVWSFGIL LWEIFTLGGT PYPELPMNDQ FYNAIKRGYR MAQPAHASDE IYEIMQKCWE EKFETRPPFS QLVLLLERLL GEGYKKKYQQ VDEEFLRSDH PAILRSQARF PGIHSLRSPL DTSSVLYTAV QPNESDNDYI IPLPDPKPDV ADEGLPEGSP SLASSTLNEV NTSSTISCDS PLELQEEPQQ AEPEAQLEQP QDSGCPGPLA EAEDSFL **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 Pdgfrb Protein (raised in Insect Cells) purified by multi-step, protein-specific process to 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:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: 1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot. 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate

Product Details

	fractions are analyzed by Western blot. 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. 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:	PDGFRB
Alternative Name:	Pdgfrb (PDGFRB Products)
Background:	Tyrosine-protein kinase that acts as cell-surface receptor for homodimeric PDGFB and PDGFD and for heterodimers formed by PDGFA and PDGFB, and plays an essential role in the regulation of embryonic development, cell proliferation, survival, differentiation, chemotaxis and migration. Plays an essential role in blood vessel development by promoting proliferation, migration and recruitment of pericytes and smooth muscle cells to endothelial cells. Plays a role in the migration of vascular smooth muscle cells and the formation of neointima at vascular injury sites. Required for normal development of the cardiovascular system. Required for normal recruitment of pericytes (mesangial cells) in the kidney glomerulus, and for normal formation of a branched network of capillaries in kidney glomeruli. Promotes rearrangement of the actin cytoskeleton and the formation of membrane ruffles. Binding of its cognate ligands - homodimeric PDGFB, heterodimers formed by PDGFA and PDGFB or homodimeric PDGFD - leads to the activation of several signaling cascades, the response depends on the nature of the bound ligand and is modulated by the formation of heterodimers between PDGFRA and PDGFRB. Phosphorylates PLCG1, PIK3R1, PTPN11, RASA1/GAP, CBL, SHC1 and NCK1. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate, mobilization of cytosolic Ca(2+) and the activation of protein kinase C. Phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leads to the activation of the AKT1 signaling pathway. Phosphorylation of SHC1, or of the C-terminus of PTPN11, creates a binding site for GRB2, resulting in the activation of HRAS, RAF1 and down-stream MAP kinases, including MAPK1/ERK2 and/or MAPK3/ERK1. Promotes phosphorylation and activation of SRC family kinases. Promotes phosphorylation of

Target Details

	PDCD6IP/ALIX and STAM (By similarity). Receptor signaling is down-regulated by protein phosphatases that dephosphorylate the receptor and its down-stream effectors, and by rapid internalization of the activated receptor. {ECO:0000250, ECO:0000269|PubMed:14624252, ECO:0000269|PubMed:14993293, ECO:0000269|PubMed:15284236, ECO:0000269|PubMed:17620338, ECO:0000269|PubMed:18948621, ECO:0000269|PubMed:19030102, ECO:0000269|PubMed:19742316, ECO:0000269|PubMed:21664579, ECO:0000269|PubMed:8440729}.
Molecular Weight:	120.7 kDa Including tag.
UniProt:	P05622
Pathways:	Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Inositol Metabolic Process, Glycosaminoglycan Metabolic Process, Smooth Muscle Cell Migration, Platelet-derived growth Factor Receptor Signaling

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)

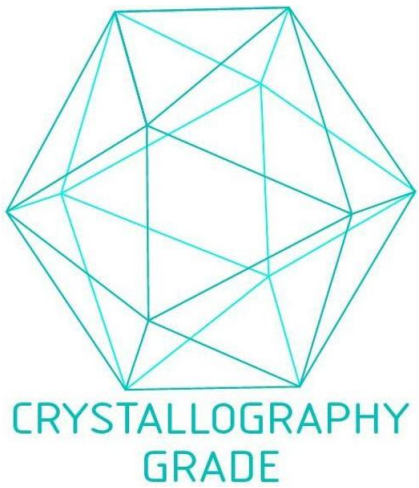

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process