Datasheet for ABIN3094023

MYO1G Protein (AA 1-1018) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	MYO1G
Protein Characteristics:	AA 1-1018
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MYO1G protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence:	MEDEEGPEYG KPDFVLLDQV TMEDFMRNLQ LRFEKGRIYT YIGEVLVSVN PYQELPLYGP EAIARYQGRE LYERPPHLYA VANAAYKAMK HRSRDTCIVI SGESGAGKTE ASKHIMQYIA AVTNPSQRAE VERVKDVLLK STCVLEAFGN ARTNRNHNSS RFGKYMDINF DFKGDPIGGH IHSYLLEKSR VLKQHVGERN FHAFYQLLRG SEDKQLHELH LERNPAVYNF THQGAGLNMT VHSALDSDEQ SHQAVTEAMR VIGFSPEEVE SVHRILAAIL HLGNIEFVET EEGGLQKEGL AVAEEALVDH VAELTATPRD LVLRSLLART VASGGRELIE KGHTAAEASY ARDACAKAVY QRLFEWVVNR INSVMEPRGR DPRRDGKDTV IGVLDIYGFE VFPVNSFEQF CINYCNEKLQ QLFIQLILKQ EQEEYEREGI TWQSVEYFNN ATIVDLVERP HRGILAVLDE ACSSAGTITD RIFLQTLDMH HRHHLHYTSR QLCPTDKTME FGRDFRIKHY AGDVTYSVEG FIDKNRDFLF QDFKRLLYNS TDPTLRAMWP DGQQDITEVT KRPLTAGTLF KNSMVALVEN LASKEPFYVR CIKPNEDKVA GKLDENHCRH QVAYLGLLEN VRVRRAGFAS RQPYSRFLLR YKMTCEYTWP NHLLGSDKAA VSALLEQHGL QGDVAFGHSK LFIRSPRTLV TLEQSRARLI PIIVLLLQKA

	WRGTLARWRC RRLRAIYTIM RWFRRHKVRA HLAELQRRFQ AARQPPLYGR DLVWPLPPAV LQPFQDTCHA LFCRWRARQL VKNIPPSDMP QIKAKVAAMG ALQGLRQDWG CRRAWARDYL SSATDNPTAS SLFAQRLKTL QDKDGFGAVL FSSHVRKVNR FHKIRNRALL LTDQHLYKLD PDRQYRVMRA VPLEAVTGLS VTSGGDQLVV LHARGQDDLV VCLHRSRPPL DNRVGELVGV LAAHCQGEGR TLEVRVSDCI PLSHRGVRRL ISVEPRPEQP EPDFRCARGS FTLLWPSR **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. • Human MYO1G 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:	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.

Product Details

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:	MYO1G
Alternative Name:	MYO1G (MYO1G Products)
Background:	Unconventional myosin required during immune response for detection of rare antigen-presenting cells by regulating T-cell migration. Unconventional myosins are actin-based motor molecules with ATPase activity and serve in intracellular movements. Acts as a regulator of T-cell migration by generating membrane tension, enforcing cell-intrinsic meandering search, thereby enhancing detection of rare antigens during lymph-node surveillance, enabling pathogen eradication. Also required in B-cells, where it regulates different membrane/cytoskeleton-dependent processes. Involved in Fc-gamma receptor (Fc-gamma-R) phagocytosis. {ECO:0000250|UniProtKB:Q5SUA5}., Minor histocompatibility antigen HA-2: Constitutes the minor histocompatibility antigen HA-2. More generally, minor histocompatibility antigens (mHags) refer to immunogenic peptide which, when complexed with MHC, can generate an immune response after recognition by specific T-cells. The peptides are derived from polymorphic intracellular proteins, which are cleaved by normal pathways of antigen processing. The binding of these peptides to MHC class I or class II molecules and their expression on the cell surface can stimulate T-cell responses and thereby trigger graft rejection or graft-versus-host disease (GVHD) after hematopoietic stem cell transplantation from HLA-identical sibling donor. GVHD is a frequent complication after bone marrow transplantation (BMT), due to mismatch of minor histocompatibility antigen in HLA-matched sibling marrow transplants. HA-2 is restricted to MHC class I HLA-A*0201. {ECO:0000269|PubMed:11544309, ECO:0000305}.
Molecular Weight:	117.4 kDa Including tag.
UniProt:	B0I1T2

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	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)

Images

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