Datasheet for ABIN3094023

MYO1G Protein (AA 1-1018) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	MYO1G
Protein Characteristics:	AA 1-1018
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MYO1G protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

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. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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

Product Details

	specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	MYO1G
Alternative Name:	MYO1G (MYO1G Products)
Background:	Unconventional myosin-Ig [Cleaved into: Minor histocompatibility antigen HA-2 (mHag HA-2)],FUNCTION: 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}., FUNCTION: [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-

Target Details

	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:	116.4 kDa
UniProt:	B0I1T2

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 guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

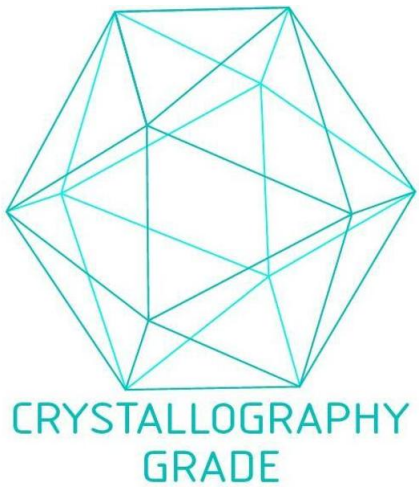

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process

