Datasheet for ABIN3092965

HMHA1 Protein (AA 1-1136) (Strep Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	HMHA1
Protein Characteristics:	AA 1-1136
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HMHA1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MFSRKKRELM KTPSISKKNR AGSPSPQPSG ELPRKDGADA VFPGPSLEPP AGSSGVKATG TLKRPTSLSR HASAAGFPLS GAASWTLGRS HRSPLTAASP GELPTEGAGP DVVEDISHLL ADVARFAEGL EKLKECVLRD DLLEARRPRA HECLGEALRV MHQIISKYPL LNTVETLTAA GTLIAKVKAF HYESNNDLEK QEFEKALETI AVAFSSTVSE FLMGEVDSST LLAVPPGDSS QSMESLYGPG SEGTPPSLED CDAGCLPAEE VDVLLQRCEG GVDAALLYAK NMAKYMKDLI SYLEKRTTLE MEFAKGLQKI AHNCRQSVMQ EPHMPLLSIY SLALEQDLEF GHSMVQAVGT LQTQTFMQPL TLRRLEHEKR RKEIKEAWHR AQRKLQEAES NLRKAKQGYV QRCEDHDKAR FLVAKAEEEQ AGSAPGAGST ATKTLDKRRR LEEEAKNKAE EAMATYRTCV ADAKTQKQEL EDTKVTALRQ IQEVIRQSDQ TIKSATISYY QMMHMQTAPL PVHFQMLCES SKLYDPGQQY ASHVRQLQRD QEPDVHYDFE PHVSANAWSP VMRARKSSFN VSDVARPEAA GSPPEEGGCT EGTPAKDHRA GRGHQVHKSW PLSISDSDSG LDPGPGAGDF KKFERTSSSG TMSSTEELVD PDGGAGASAF EQADLNGMTP ELPVAVPSGP FRHEGLSKAA RTHRLRKLRT PAKCRECNSY

VYFQGAECEE CCLACHKKCL ETLAIQCGHK KLQGRLQLFG QDFSHAARSA PDGVPFIVKK CVCEIERRAL RTKGIYRVNG VKTRVEKLCQ AFENGKELVE LSQASPHDIS NVLKLYLRQL PEPLISFRLY HELVGLAKDS LKAEAEAKAA SRGRQDGSES EAVAVALAGR LRELLRDLPP ENRASLQYLL RHLRRIVEVE QDNKMTPGNL GIVFGPTLLR PRPTEATVSL SSLVDYPHQA RVIETLIVHY GLVFEEEPEE TPGGQDESSN QRAEVVVQVP YLEAGEAVVY PLQEAAADGC RESRVVSNDS DSDLEEASEL LSSSEASALG HLSFLEQQQS EASLEVASGS HSGSEEQLEA TAREDGDGDE DGPAQQLSGF NTNQSNNVLQ APLPPMRLRG GRMTLGSCRE RQPEFV

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:

Product Details

- 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.
- 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:	HMHA1
Alternative Name:	ARHGAP45 (HMHA1 Products)
Background:	Rho GTPase-activating protein 45 [Cleaved into: Minor histocompatibility antigen HA-1 (mHag HA-1)],FUNCTION: Contains a GTPase activator for the Rho-type GTPases (RhoGAP) domain that would be able to negatively regulate the actin cytoskeleton as well as cell spreading. However, also contains N-terminally a BAR-domin which is able to play an autoinhibitory effect on this RhoGAP activity. {ECO:0000269|PubMed:24086303}., FUNCTION: Precursor of the histocompatibility antigen HA-1. 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 its 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. Specifically, mismatching for mHag HA-1 which is recognized as immunodominant, is shown to be

Target Details

	associated with the development of severe GVHD after HLA-identical BMT. HA-1 is presented to the cell surface by MHC class I HLA-A*0201, but also by other HLA-A alleles. This complex specifically elicits donor-cytotoxic T-lymphocyte (CTL) reactivity against hematologic malignancies after treatment by HLA-identical allogenic BMT. It induces cell recognition and lysis by CTL. {ECO:0000269|PubMed:12601144, ECO:0000269|PubMed:8260714, ECO:0000269|PubMed:8532022, ECO:0000269|PubMed:9798702}.
Molecular Weight:	124.6 kDa
UniProt:	Q92619

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.

Handling

Expiry Date:	Unlimited (if stored properly)

Images

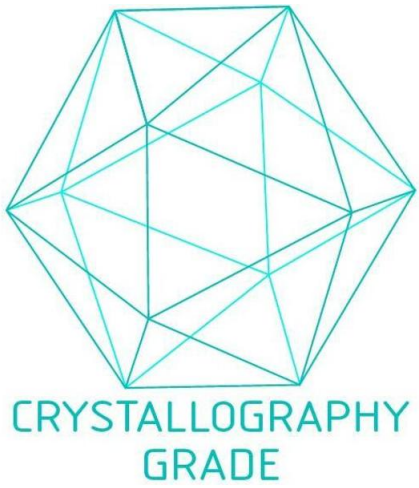

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process