Datasheet for ABIN3092288

EHD3 Protein (AA 1-535) (Strep Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	EHD3
Protein Characteristics:	AA 1-535
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EHD3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MFSWLGTDDR RRKDPEVFQT VSEGLKKLYK SKLLPLEEHY RFHEFHSPAL EDADFDNKPM VLLVGQYSTG KTTFIRYLLE QDFPGMRIGP EPTTDSFIAV MQGDMEGIIP GNALVVDPKK PFRKLNAFGN AFLNRFVCAQ LPNPVLESIS VIDTPGILSG EKQRISRGYD FAAVLEWFAE RVDRIILLFD AHKLDISDEF SEVIKALKNH EDKMRVVLNK ADQIETQQLM RVYGALMWSL GKIVNTPEVI RVYIGSFWSH PLLIPDNRKL FEAEEQDLFR DIQSLPRNAA LRKLNDLIKR ARLAKVHAYI ISSLKKEMPS VFGKDNKKKE LVNNLAEIYG RIEREHQISP GDFPNLKRMQ DQLQAQDFSK FQPLKSKLLE VVDDMLAHDI AQLMVLVRQE ESQRPIQMVK GGAFEGTLHG PFGHGYGEGA GEGIDDAEWV VARDKPMYDE IFYTLSPVDG KITGANAKKE MVRSKLPNSV LGKIWKLADI DKDGMLDDDE FALANHLIKV KLEGHELPNE LPAHLLPPSK RKVAE

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.

Product Details

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 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

Product Details

	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:	EHD3
Alternative Name:	EHD3 (EHD3 Products)
Background:	EH domain-containing protein 3 (PAST homolog 3),FUNCTION: ATP- and membrane-binding protein that controls membrane reorganization/tubulation upon ATP hydrolysis (PubMed:25686250). In vitro causes tubulation of endocytic membranes (PubMed:24019528). Binding to phosphatidic acid induces its membrane tubulation activity (By similarity). Plays a role in endocytic transport. Involved in early endosome to recycling endosome compartment (ERC), retrograde early endosome to Golgi, and endosome to plasma membrane (rapid recycling) protein transport. Involved in the regulation of Golgi maintenance and morphology (PubMed:16251358, PubMed:17233914, PubMed:19139087, PubMed:23781025). Involved in the recycling of internalized D1 dopamine receptor (PubMed:21791287). Plays a role in cardiac protein trafficking probably implicating ANK2 (PubMed:20489164). Involved in the ventricular membrane targeting of SLC8A1 and CACNA1C and probably the atrial membrane localization of CACNA1GG and CACNA1H implicated in the regulation of atrial myocyte excitability and cardiac conduction (By similarity). In conjunction with EHD4 may be involved in endocytic trafficking of KDR/VEGFR2 implicated in control of glomerular function (By similarity). Involved in the rapid recycling of integrin beta-3 implicated in cell adhesion maintenance (PubMed:23781025). Involved in the unidirectional retrograde dendritic transport of endocytosed BACE1 and in efficient sorting of BACE1 to axons implicating a function in neuronal APP processing (By similarity). Plays a role in the formation of the ciliary vesicle, an early step in cilium biogenesis, possibly sharing redundant functions with EHD1 (PubMed:25686250). {ECO:0000250|UniProtKB:Q9QXY6, ECO:0000269|PubMed:16251358, ECO:0000269|PubMed:17233914, ECO:0000269|PubMed:19139087, ECO:0000269|PubMed:21791287, ECO:0000269|PubMed:23781025, ECO:0000269|PubMed:24019528, ECO:0000269|PubMed:25686250, ECO:0000305|PubMed:20489164}.
Molecular Weight:	60.9 kDa

Target Details

UniProt:	Q9NZN3

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