Datasheet for ABIN3117943

ZDHHC5 Protein (AA 1-715) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	ZDHHC5
Protein Characteristics:	AA 1-715
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ZDHHC5 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MPAESGKRFK PSKYVPVSAA AIFLVGATTL FFAFTCPGLS LYVSPAVPIY NAIMFLFVLA NFSMATFMDP GIFPRAEEDE DKEDDFRAPL YKTVEIKGIQ VRMKWCATCR FYRPPRCSHC SVCDNCVEEF DHHCPWVNNC IGRRNYRYFF LFLLSLTAHI MGVFGFGLLY VLYHIEELSG VRTAVTMAVM CVAGLFFIPV AGLTGFHVVL VARGRTTNEQ VTGKFRGGVN PFTNGCCNNV SRVLCSSPAP RYLGRPKKEK TIVIRPPFLR PEVSDGQITV KIMDNGIQGE LRRTKSKGSL EITESQSADA EPPPPPKPDL SRYTGLRTHL GLATNEDSSL LAKDSPPTPT MYKYRPGYSS SSTSAAMPHS SSAKLSRGDS LKEPTSIAES SRHPSYRSEP SLEPESFRSP TFGKSFHFDP LSSGSRSSSL KSAQGTGFEL GQLQSIRSEG TTSTSYKSLA NQTRNGSLSY DSLLTPSDSP DFESVQAGPE PDPPLGYTSP FLSARLAQQR EAERHPRLVP TGPTHREPSP VRYDNLSRHI VASLQEREKL LRQSPPLPGR EEEPGLGDSG IQSTPGSGHA PRTSSSSDDS KRSPLGKTPL GRPAVPRFGK PDGLRGRGVG SPEPGPTAPY LGRSMSYSSQ KAQPGVSETE EVALQPLLTP KDEVQLKTTY SKSNGQPKSL GSASPGPGQP PLSSPTRGGV KKVSGVGGTT YEISV

	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 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®):

Product Details

	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:	ZDHHC5
Alternative Name:	ZDHHC5 (ZDHHC5 Products)
Background:	Palmitoyltransferase ZDHHC5 (EC 2.3.1.225) (Zinc finger DHHC domain-containing protein 5) (DHHC-5) (Zinc finger protein 375),FUNCTION: Palmitoyltransferase that catalyzes the addition of palmitate onto various protein substrates such as CTNND2, CD36, NOD1, NOD2, STAT3 and S1PR1 thus plays a role in various biological processes including cell adhesion, fatty acid uptake, bacterial sensing or cardiac functions (PubMed:21820437, PubMed:29185452, PubMed:31402609, PubMed:31649195, PubMed:34293401). Plays an important role in the regulation of synapse efficacy by mediating palmitoylation of delta-catenin/CTNND2, thereby increasing synaptic delivery and surface stabilization of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid receptors (AMPARs). Under basal conditions, remains at the synaptic membrane through FYN-mediated phosphorylation that prevents association with endocytic proteins (PubMed:26334723). Neuronal activity enhances the internalization and trafficking of DHHC5 from spines to dendritic shafts where it palmitoylates delta-catenin/CTNND2 (PubMed:26334723). Regulates cell adhesion at the plasma membrane by palmitoylating GOLGA7B and DSG2 (PubMed:31402609). Plays a role in innate immune response by mediating the palmitoylation of NOD1 and NOD2 and their proper recruitment to the bacterial entry site and phagosomes (PubMed:31649195, PubMed:34293401). Participates also in fatty acid uptake by palmitoylating CD36 and thereby targeting it to the plasma membrane. Upon binding of fatty acids to CD36, gets phosphorylated by LYN leading to inactivation and subsequent CD36 caveolar endocytosis (PubMed:32958780). Controls oligodendrocyte development by catalyzing STAT3 palmitoylation (By similarity). {ECO:0000250|UniProtKB:Q8VDZ4, ECO:0000269|PubMed:21820437, ECO:0000269|PubMed:26334723, ECO:0000269|PubMed:29185452,

Target Details

	ECO:0000269|PubMed:31402609, ECO:0000269|PubMed:31649195, ECO:0000269|PubMed:32958780, ECO:0000269|PubMed:34293401}.
Molecular Weight:	77.5 kDa
UniProt:	Q9C0B5
Pathways:	SARS-CoV-2 Protein Interactome, The Global Phosphorylation Landscape of SARS-CoV-2 Infection

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

