Datasheet for ABIN3135052

NDST1 Protein (AA 1-882) (Strep Tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	NDST1
Protein Characteristics:	AA 1-882
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NDST1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MPALACLRRL CRHLSPQAVL FLLFVFCLFS VFVSAYYLYG WNRGLEPSAD ASESDCGDPP PVAPSRLLPI KPVQAVAPSR TDPLVLVFVE SLYSQLGQEV VAILESSRFK YRTEIAPGKG DMPTLTDKGR GRFALIIYEN ILKYVNLDAW NRELLDKYCV AYGVGIIGFF KANENSLLSA QLKGFPLFLH SNLGLKDCSI NPKSPLLYVT RPSEVEKGVL PGEDWTVFQS NHSTYEPVLL AKTRSSESIP HLGADAGLHA ALHATVVQDL GLHDGIQRVL FGNNLNFWLH KLVFVDAVAF LTGKRLSLPL DRYILVDIDD IFVGKEGTRM KVEDVKALFD TQNELRTHIP NFTFNLGYSG KFFHTGTDAE DAGDDLLLSY VKEFWWFPHM WSHMQPHLFH NQSVLAEQMA LNKKFAVEHG IPTDMGYAVA PHHSGVYPVH VQLYEAWKQV WGIRVTSTEE YPHLKPARYR RGFIHNGIMV LPRQTCGLFT HTIFYNEYPG GSSELDKIIN GGELFLTVLL NPISIFMTHL SNYGNDRLGL YTFKHLVRFL HSWTNLRLQT LPPVQLAQKY FQIFSEEKDP LWQDPCEDKR HKDIWSKEKT CDRFPKLLII GPQKTGTTAL YLFLGMHPDL SSNYPSSETF EEIQFFNGHN YHKGIDWYME FFPIPSNTTS DFYFEKSANY FDSEVAPRRA AALLPKAKIL SILINPADRA YSWYQHQRAH

DDPVALKYTF HEVITAGPDA SSKLRALQNR CLVPGWYATH IERWLSAFHA NQILVLDGKL LRTEPAKVMD TVQKFLGVTS TVDYHKTLAF DPKKGFWCQL LEGGKTKCLG KSKGRKYPEM DLDSRAFLKD YFRDHNIELS KLLYKMGQTL PTWLREDLQN TR

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.

Product Details

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)

Target Details

Target:	NDST1
Alternative Name:	Ndst1 (NDST1 Products)
Background:	Bifunctional heparan sulfate N-deacetylase/N-sulfotransferase 1 (Glucosaminyl N-deacetylase/N-sulfotransferase 1) (NDST-1) (N-heparan sulfate sulfotransferase 1) (N-HSST 1) ([Heparan sulfate]-glucosamine N-sulfotransferase 1) (HSNST 1) [Includes: Heparan sulfate N-deacetylase 1 (EC 3.5.1.-), Heparan sulfate N-sulfotransferase 1 (EC 2.8.2.8)],FUNCTION: Essential bifunctional enzyme that catalyzes both the N-deacetylation and the N-sulfation of glucosamine (GlcNAc) of the glycosaminoglycan in heparan sulfate (PubMed:11087757, PubMed:10758005, PubMed:10664446, PubMed:12590599, PubMed:12692154, PubMed:16020517, PubMed:16056228, PubMed:18337501). Modifies the GlcNAc-GlcA disaccharide repeating sugar backbone to make N-sulfated heparosan, a prerequisite substrate for later modifications in heparin biosynthesis (Probable). Plays a role in determining the extent and pattern of sulfation of heparan sulfate (Probable). Participates in biosynthesis of heparan sulfate that can ultimately serve as L-selectin ligands, thereby playing a role in inflammatory response (PubMed:16056228). Required for the exosomal release of SDCBP, CD63 and syndecan (By similarity). {ECO:0000250|UniProtKB:P52848, ECO:0000269|PubMed:10664446, ECO:0000269|PubMed:10758005, ECO:0000269|PubMed:11087757, ECO:0000269|PubMed:12590599, ECO:0000269|PubMed:12692154, ECO:0000269|PubMed:16020517, ECO:0000269|PubMed:16056228, ECO:0000269|PubMed:18337501, ECO:0000305|PubMed:12634318}.
Molecular Weight:	100.7 kDa
UniProt:	Q3UHN9

Target Details

Pathways:	Regulation of Systemic Arterial Blood Pressure by Hormones, Glycosaminoglycan Metabolic Process

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)