

Datasheet for ABIN3113892

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



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Overview

Quantity:	250 µg
Target:	NDST1
Protein Characteristics:	AA 1-882
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NDST1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MPALACLRRRL CRHVSPQAVL FLLFIFCLFS VFISAYYLYG WKRGLEPSAD APEPDCGDPP</p> <p>PVAPSRLLPL KPVQAATPSR TDPLVLVFVE SLYSQLGQEV VAILESSRFK YRTEIAPGKG</p> <p>DMPTLTDKGR GRFALIYEN ILKYVNLD AW NRELLDKYCV AYGVGIIIGFF KANENSLLSA</p> <p>QLKGFPLFLH SNLGLKDCSI NPKSPLLYVT RPSEVEKGV L PGEDWTVFQS NHSTYEPVLL</p> <p>AKTRSSSIP HLGADAGLHA ALHATVVQDL GLHDGIQRLV FGNNLNFWLH KLVFVDAVAF</p> <p>LTGKRLSLPL DRYILVDIDD IFVGKEGTRM KVEDVKALFD TQNELRAHIP NFTFNLGYSG</p> <p>KFFHTGTNAE DAGDDL LLSY VKEFWWFPHM WSHMQPHLFH NQSVLAEQMA LNKKFAVEHG</p> <p>IPTDMGYAVA PHHSGVYPVH VQLYEAWKQV WSIRVTSTEE YPHLKPARYR RGFHNGIMV</p> <p>LPRQTCGLFT HTIFYNEYPG GSSELDKIIN GGELFLTVLL NPISIFMTHL SNYGNDRLGL</p> <p>YTFKHLVRFL HSWTNLRLQT LPPVQLAQKY FQIFSEEKDP LWQDPCEDKR HKDIWSKEKT</p> <p>CDRFPKLLII GPQKTGTTAL YLFLGMHPDL SSNYPSETF EEIQFFNGHN YHKGIDWYME</p>

FFPIPSNTTS DFYFEKSANY FDSEVAPRRA AALLPKAKVL TILINPADRA YSWYQHQRHAH
DDPVALKYTF HEVITAGSDA SSKLRALQNR CLVPGWYATH IERWLSAYHA NQILVLDGKL
LRTEPAKVMD MVQKFLGVTN TIDYHKTLAF DPKKGFWCQL LEGGKTKCLG KSKGRKYPEM
DLDSRAFLKD YYRDHNIELS 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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	NDST1
Alternative Name:	NDST1 (NDST1 Products)
Background:	<p>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: [Isoform 1]: Essential bifunctional enzyme that catalyzes both the N-deacetylation and the N-sulfation of glucosamine (GlcNAc) of the glycosaminoglycan in heparan sulfate (PubMed:9230113, PubMed:9744796, PubMed:35137078). Modifies the GlcNAc-GlcA disaccharide repeating sugar backbone to make N-sulfated heparosan, a prerequisite substrate for later modifications in heparin biosynthesis (PubMed:9230113). Plays a role in determining the extent and pattern of sulfation of heparan sulfate. Participates in biosynthesis of heparan sulfate that can ultimately serve as L-selectin ligands, thereby playing a role in inflammatory response (By similarity). Required for the exosomal release of SDCBP, CD63 and syndecan (PubMed:22660413). {ECO:0000250 UniProtKB:Q3UHN9, ECO:0000269 PubMed:22660413, ECO:0000269 PubMed:9230113}., FUNCTION: [Isoform 3]: Lacks both N-deacetylase and N-sulfotransferase activities. Acts as a dominant negative on isoform 1, likely by changing the composition of enzyme complexes responsible for elongation and modification of heparan sulfates. {ECO:0000269 PubMed:35137078}.</p>
Molecular Weight:	100.9 kDa
UniProt:	P52848
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
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Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment:

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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.

Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice:

Avoid repeated freeze-thaw cycles.

Storage:

-80 °C

Storage Comment:

Store at -80°C.

Expiry Date:

12 months