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Datasheet for ABIN3095528

## Sorting Nexin 2 Protein (SNX2) (AA 1-519) (Strep Tag)

### Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 1 mg   |
| Target:                       | Sorting Nexin 2 (SNX2)                                   |
| Protein Characteristics:      | AA 1-519   |
| Origin:                       | Human  |
| Source:                       | Tobacco (Nicotiana tabacum)                              |
| Protein Type:                 | Recombinant  |
| Purification tag / Conjugate: | This Sorting Nexin 2 protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)             |

### Product Details

Sequence: MAAEREPPL GDGKPTDFED LEDGEDLFTS TVSTLESSPS SPEPASLPAE DISANSNGPK  
PTEVLDDDR EDLFAEATEE VSLDPEREP ILSSEPSAV TPVTPTTLIA PRIESKMSA  
PVIFDRSREE IEEANGDIF DIEIGVSDPE KVGDMNAYM AYRVTTKTSL SMFSKSEFSV  
KRRFSDFLGL HSKLASKYLH VGYIVPPAPE KSIVGMTKVK VGKEDSSSTE FVEKRRAALE  
RYLQRTVKHP TLLQDPDLRQ FLESSELRA VNTQALSGAG ILRMVNKAAD AVNKMTIKMN  
ESDAWFEEKQ QQFENLDQL RKLHVSVEAL VCHRKELSAN TAAFAKSAAM LGNSEDHTAL  
SRALSQLAEV EEKIDQLHQE QAFADFYMFS ELLSDYIRLI AAVKGVFDHR MKCWQKWEDA  
QITLLKKREA EAKMMVANKP DKIQQAKNEI REWEAKVQQG ERDFEQISKT IRKEVGRFEK  
ERVKDFKTVI IKYLESLVQT QQQLIKYWEA FLPEAKAIA

**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.

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### 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

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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

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Target: Sorting Nexin 2 (SNX2)

Alternative Name: SNX2 ([SNX2 Products](#))

Background: Sorting nexin-2 (Transformation-related gene 9 protein) (TRG-9),FUNCTION: Involved in several stages of intracellular trafficking. Interacts with membranes containing phosphatidylinositol 3-phosphate (PtdIns(3P)) or phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) (PubMed:16179610). Acts in part as component of the retromer membrane-deforming SNX-BAR subcomplex (PubMed:17101778). The SNX-BAR retromer mediates retrograde transport of cargo proteins from endosomes to the trans-Golgi network (TGN) and is involved in endosome-to-plasma membrane transport for cargo protein recycling. The SNX-BAR subcomplex functions to deform the donor membrane into a tubular profile called endosome-to-TGN transport carrier (ETC) (Probable). Can sense membrane curvature and has in vitro vesicle-to-membrane remodeling activity (PubMed:23085988). Required for retrograde endosome-to-TGN transport of TGN38 (PubMed:20138391). Promotes KALRN- and RHOG-dependent but retromer-independent membrane remodeling such as lamellipodium formation, the function is dependent on GEF activity of KALRN (PubMed:20604901).  
{ECO:0000269|PubMed:16179610, ECO:0000269|PubMed:17101778, ECO:0000269|PubMed:20138391, ECO:0000269|PubMed:20604901, ECO:0000269|PubMed:23085988, ECO:0000303|PubMed:16179610}.

Molecular Weight: 58.5 kDa

UniProt: [O60749](#)

## Application Details

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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

## Application Details

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even the most difficult-to-express proteins, including those that require post-translational modifications.

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Restrictions: For Research Use only

## Handling

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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)