Datasheet for ABIN3095981

Transportin 3 Protein (TNPO3) (AA 1-923) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	Transportin 3 (TNPO3)
Protein Characteristics:	AA 1-923
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Transportin 3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MEGAKPTLQL VYQAVQALYH DPDPSGKERA SFWLGELQRS VHAWEISDQL LQIRQDVESC YFAAQTMKMK IQTSFYELPT DSHASLRDSL LTHIQNLKDL SPVIVTQLAL AIADLALQMP SWKGCVQTLV EKYSNDVTSL PFLLEILTVL PEEVHSRSLR IGANRRTEII EDLAFYSSTV VSLLMTCVEK AGTDEKMLMK VFRCLGSWFN LGVLDSNFMA NNKLLALLFE VLQQDKTSSN LHEAASDCVC SALYAIENVE TNLPLAMQLF QGVLTLETAY HMAVAREDLD KVLNYCRIFT ELCETFLEKI VCTPGQGLGD LRTLELLLIC AGHPQYEVVE ISFNFWYRLG EHLYKTNDEV IHGIFKAYIQ RLLHALARHC QLEPDHEGVP EETDDFGEFR MRVSDLVKDL IFLIGSMECF AQLYSTLKEG NPPWEVTEAV LFIMAAIAKS VDPENNPTLV EVLEGVVRLP ETVHTAVRYT SIELVGEMSE VVDRNPQFLD PVLGYLMKGL CEKPLASAAA KAIHNICSVC RDHMAQHFNG LLEIARSLDS FLLSPEAAVG LLKGTALVLA RLPLDKITEC LSELCSVQVM ALKKLLSQEP SNGISSDPTV FLDRLAVIFR HTNPIVENGQ THPCQKVIQE IWPVLSETLN KHRADNRIVE RCCRCLRFAV RCVGKGSAAL LQPLVTQMVN VYHVHQHSCF LYLGSILVDE YGMEEGCRQG

LLDMLQALCI PTFQLLEQQN GLQNHPDTVD DLFRLATRFI QRSPVTLLRS QVVIPILQWA IASTTLDHRD ANCSVMRFLR DLIHTGVAND HEEDFELRKE LIGQVMNQLG QQLVSQLLHT CCFCLPPYTL PDVAEVLWEI MQVDRPTFCR WLENSLKGLP KETTVGAVTV THKQLTDFHK QVTSAEECKQ VCWALRDFTR LFR

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.

Product Details

- 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 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:	Transportin 3 (TNPO3)
Alternative Name:	TNPO3 (TNPO3 Products)
Background:	Transportin-3 (Importin-12) (Imp12) (Transportin-SR) (TRN-SR),FUNCTION: Importin, which transports target proteins into the nucleus (PubMed:10366588, PubMed:10713112, PubMed:11517331, PubMed:12628928, PubMed:24449914). Specifically mediates the nuclear import of splicing factor serine/arginine (SR) proteins, such as RBM4, SFRS1 and SFRS2, by recognizing phosphorylated SR domains (PubMed:10366588, PubMed:10713112, PubMed:11517331, PubMed:12628928, PubMed:24449914). Also mediates the nuclear import of serine/arginine (SR) protein CPSF6, independently of CPSF6 phosphorylation (PubMed:30916345, PubMed:31465518). The nuclear import process is regulated by the small GTPase Ran that partitions between cytoplasm and nucleus in the predominantly GDP- and GTP-bound form, respectively (PubMed:23878195, PubMed:24449914). Importin associates with target cargo proteins in the cytoplasm, and the competitive binding of GTP-bound Ran induces the release of cargos in the nucleus (PubMed:23878195, PubMed:24449914). {ECO:0000269|PubMed:10366588, ECO:0000269|PubMed:10713112, ECO:0000269|PubMed:11517331, ECO:0000269|PubMed:12628928, ECO:0000269|PubMed:23878195, ECO:0000269|PubMed:24449914, ECO:0000269|PubMed:30916345, ECO:0000269|PubMed:31465518}., FUNCTION: (Microbial infection) Involved in immunodeficiency virus (HIV-1) infection by importing the pre-integration

Target Details

	complex (PIC) into the nucleus (PubMed:18722123, PubMed:21901095, PubMed:22398280, PubMed:29329553). Required for a nuclear maturation step of HIV-1 prior to integration (PubMed:21901095, PubMed:22398280). {ECO:0000269|PubMed:18722123, ECO:0000269|PubMed:21901095, ECO:0000269|PubMed:22398280, ECO:0000269|PubMed:29329553}.
Molecular Weight:	104.2 kDa
UniProt:	Q9Y5L0
Pathways:	Protein targeting to Nucleus

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.

Handling

Expiry Date:	Unlimited (if stored properly)

Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process