

Datasheet for ABIN3075084

**TXNDC2 Protein (AA 1-553) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	TXNDC2
Protein Characteristics:	AA 1-553
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TXNDC2 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Sequence: MDVDKELGME SVKAGASGKP EMRLGTQEET SEG DANESSL LVLSSNVPLL ALEFLEIAQA  
KEKAFLPMVS HTFHMRTES DASQEGDDL P KSSANTSHPK QDDSPKSSEE TIQPKEGDIP  
KAPEETIQSK KEDLPKSSEK AIQPKESNIP KSSAKPIQPK LGNIPKASVK PSQPKEGDIP  
KAPEETIQSK KEDLPKSSEE AIQPKEGDIP KSSAKPIQPK LGNIAKTSVK PSQPKESDIP  
KSPEETIQPK EGDIPKSSAK PIQPKLGNI P KASVKPSQPK EGDISKSP EE AIQPKEGDL P  
KSLEEAIQPK EGDIPKSPEE AIQPKEGDIP KSLEEAIQPK EGDIPKSPEE TIQPKKGDI P KSPEEAIQPK  
EGDIPKSPKQ AIQPKEGDIP KSLEEAI PPK EIDIPKSPEE TIQPKEDDSP KSLEEATPSK EGDILKPEEE  
TMEFPEGDKV KVILSKEDFE ASLKEAGERL VAVDFSATWC GPCRTIRPFF HALSVKHEDV  
VFLEVDADNC EEVVRECAIM CVPTFQFYKK EEKVDEL CGA LKEKLEAVIA ELK

**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

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: TXNDC2

Alternative Name: TXNDC2 ([TXNDC2 Products](#))

Background: Thioredoxin domain-containing protein 2 (Spermatid-specific thioredoxin-1) (Sptrx-1),FUNCTION: Probably plays a regulatory role in sperm development. May participate in regulation of fibrous sheath (FS) assembly by supporting the formation of disulfide bonds during sperm tail morphogenesis. May also be required to rectify incorrect disulfide pairing and generate suitable pairs between the FS constituents. Can reduce disulfide bonds in vitro in the presence of NADP and thioredoxin reductase.

Molecular Weight: 60.4 kDa

UniProt: [Q86VQ3](#)

Pathways: [Cell RedoxHomeostasis](#)

## 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.

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Application Details

	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)

Images



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