



Datasheet for ABIN3136978

## TDRD1 Protein (AA 1-1172) (Strep Tag)



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### Overview

Quantity:	1 mg
Target:	TDRD1
Protein Characteristics:	AA 1-1172
Origin:	Mouse
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This TDRD1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

### Product Details

Sequence: MMPRNNLEAS TCKMAEPFNF EKKESKPPPQ DPLRSPVAQH NHPTFRLKSP ENGNTKNNFL  
LCEQNQYLA SQEDSSVVSS NPAVNGEVG GSKGDRKPPP TGNPVSPLSL GNSSPPNQVK  
TKPSSNVTPPE KSKKSHKLFE NALSVNNPAL FNSLGPPPLRS TTCHRCGLFG SLRCSQCKQT  
YYCSTACQRR DWSSHSTICR PVQQSLNKLE DNKSPFETKA IEVKSEVDCP PGVTKEITAG  
AERVMFSDLR SLQLKKTMEI KGTVTEFKHP SNFYIQLYSS EVLENMNQLS TSLKETYANV  
VPEDGYLPVK GEVCVAKYTV DQTWNRAIVQ AVDVLQRKAH VLYIDYGNEE MIPIDS VHPL  
SRGLDLFPPS AIKCCVSGVI PTAGEWSEGC VAAVKALLFE QFC SVKVMDI LEEEVLTCAV  
DLVLQSSGKQ LDHVLVEMGY GVKGPEQSST EQSDVHSALE DVGRVTVESK IVTDRNALIP  
KVLTLNVGDE FCGVVAHIQT PEDFFCQQLQ SGHKLAEQE SLSEYCGHVI PRSDFYPTIG  
DVCCAQFSED DQWYRASVLA YASEESVLVG YVDYGNFEIL SLKRLCPIIP KLLDLMQAL  
NCVLAGVKPS LGIWTPEAVC VMKEMVQNRM VTVRVVGMLG TRALVELIDK SVAPHVSASK  
ALIDSGFAIK EKDVAKGSS MHTASVPLAI EGPAEALEWT WVEFTVDETV DVVVCMMYSP

## Product Details

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GEFYCHFLKD DALEKLDLNL QSLADYCAQK PPNGFKAEG RPCCAFFSGD GNWYRALVKE  
ILPSGNVKVH FVDYGNVEEV TTDQLQAILP QFLLLPFQGM QCWLVDIQPP NKHWTKEATA  
RFQACVVGLK LQARVVEITA NGVGVELTDL STPYPKIISD VLIREQLVLR CGSPQDSLMS  
RPANQHKQID SHRVQASPSA EQWKTMELPV NKTIAANVLE IISPALFYAI PSEMSENQEK  
LCVLAAELLE HCNAQKGQPA YRPRTGDACC AKYTNDDFWY RAIVLETSES DVKVLYADYG  
NIETLPLSRV QPIPASHLEL PFQIIRCSLE GPMELNGSCS QLVMEELLRNA MLNQSVVLSV  
KAISKNVHAV SVEKCSENGM INIAENLVMC GLAENLTSKR KSASTKEIPH SRDCCCTELQ  
KQIEKHEQIL LFLLNNPTNQ SKFTEMKKLL RS

**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.**

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### 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!

## Product Details

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### 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 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

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## Target Details

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Target:	TDRD1
Alternative Name:	Tdrd1 ( <a href="#">TDRD1 Products</a> )
Background:	Tudor domain-containing protein 1,FUNCTION: Plays a central role during spermatogenesis by participating in the repression transposable elements and preventing their mobilization, which is essential for the germline integrity. Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and governs the methylation and subsequent repression of transposons. Required for the localization of Piwi proteins to the meiotic nuage. Involved in the piRNA metabolic process by ensuring the entry of correct transcripts into the normal piRNA pool and limiting the entry of cellular transcripts into the piRNA pathway. May act by allowing the recruitment of piRNA biogenesis or loading factors that ensure the correct entry of transcripts and piRNAs into Piwi proteins. {ECO:0000269 PubMed:17038506, ECO:0000269 PubMed:19465913, ECO:0000269 PubMed:19584108}.
Molecular Weight:	129.7 kDa
UniProt:	<a href="#">Q99MV1</a>

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## Target Details

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Pathways: [Ribonucleoprotein Complex Subunit Organization](#)

## 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 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

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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)