Datasheet for ABIN3095802

# TDRD1 Protein (AA 1-1180) (Strep Tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | TDRD1 |
| Protein Characteristics: | AA 1-1180 |
| Origin: | Human |
| Source: | Tobacco (Nicotiana tabacum) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This TDRD1 protein is labelled with Strep Tag. |
| Application: | Western Blotting (WB), ELISA, SDS-PAGE (SDS) |

## Product Details

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| Sequence: | MSVKSPFNVM SRNNLEAPPC KMTEPFNFEK NENKLPPHES LRSPGTLPNH PNFRLKSSEN GNKKNNFLLC EQTKQYLASQ EDNSVSSNPN GINGEVVGSK GDRKKLPAGN SVSPPSAESN SPPKEVNIKP GNNVRPAKSK KLNKLVENSL SISNPGLFTS LGPPLRSTTC HRCGLFGSLR CSQCKQTYYC STACQRRDWS AHSIVCRPVQ PNFHKLENKS SIETKDVEVN NKSDCPLGVT KEIAIWAERI MFSDLRSLQL KKTMEIKGTV TEFKHPGDFY VQLYSSEVLE YMNQLSASLK ETYANVHEKD YIPVKGEVCI AKYTVDQTWN RAIIQNVDVQ QKKAHVLYID YGNEEIIPLN RIYHLNRNID LFPPCAIKCF VANVIPAEGN WSSDCIKATK PLLMEQYCSI KIVDILEEEV VTFAVEVELP NSGKLLDHVL IEMGYGLKPS GQDSKKENAD QSDPEDVGKM TTENNIVVDK SDLIPKVLTL NVGDEFCGVV AHIQTPEDFF CQQLQSGRKL AELQASLSKY CDQLPPRSDF YPAIGDICCA QFSEDDQWYR ASVLAYASEE SVLVGYVDYG NFEILSLMRL CPIIPKLLEL PMQAIKCVLA GVKPSLGIWT PEAICLMKKL VQNKIITVKV VDKLENSSLV ELIDKSETPH VSVSKVLLDA GFAVGEQSMV TDKPSDVKET SVPLGVEGKV NPLEWTWVEL GVDQTVDVVV |

CVIYSPGEFY CHVLKEDALK KLNDLNKSLA EHCQQKLPNG FKAEIGQPCC AFFAGDGSWY RALVKEILPN GHVKVHFVDY GNIEEVTADE LRMISSTFLN LPFQGIRCQL ADIQSRNKHW SEEAITRFQM CVAGIKLQAR VVEVTENGIG VELTDLSTCY PRIISDVLID EHLVLKSASP HKDLPNDRLV NKHELQVHVQ GLQATSSAEQ WKTIELPVDK TIQANVLEII SPNLFYALPK GMPENQEKLC MLTAELLEYC NAPKSRPPYR PRIGDACCAK YTSDDFWYRA VVLGTSDTDV EVLYADYGNI ETLPLCRVQP ITSSHLALPF QIIRCSLEGL MELNGSSSQL IIMLLKNFML NQNVMLSVKG ITKNVHTVSV EKCSENGTVD VADKLVTFGL AKNITPQRQS ALNTEKMYRM NCCCTELQKQ VEKHEHILLF LLNNSTNQNK FIEMKKLLKS

**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!

## Product Details

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| | Concentration:<br>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.<br>• The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.<br>• 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®):<br>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.<br>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

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| Target: | TDRD1 |
| Alternative Name: | TDRD1 (TDRD1 Products) |
| Background: | Tudor domain-containing protein 1 (Cancer/testis antigen 41.1) (CT41.1),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 (By similarity). {ECO:0000250}. |
| Molecular Weight: | 132.0 kDa |
| UniProt: | Q9BXT4 |

## 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.<br>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) |