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Datasheet for ABIN3137048

## TDRD12 Protein (AA 1-1215) (His tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	TDRD12
Protein Characteristics:	AA 1-1215
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TDRD12 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence: MFEVLVLKIE DPGCFWVIK GCSHFLEQEV DYQKLN TAMN DFYNSMCQDV EMKPLMLEEG  
QVCVVYQEL KCWCRA LIKS IISSADHYLA ECFLVDFAKY IPVKSKNIRV AVESFMQLPY  
RAKKFRLYGT KPVTLHIDFC EDNAEIVPAT KWDSAAIQYF QNLLRATTQV EAKLCAVEED  
TFEVLYATI KNEKVCVNDD LVAKNFAYYV SPMGNKNLNP LEKPRQSLNS VTCSSKLSPS  
LTLWPMLLQG KDYHRMENKA LNYKDSL TDS PKMMLEKQQQ SLPLKHTEKC TESSVYWPTK  
RGITIYADPD VPSVSGSSQR PNEKPLRLTE KKDCDEKNGC VKLLQFLNPD PLRADGTSDL  
HQLQKVKLG T LQPGVVLNRN IEPCLTLEKS PLSADLKKMA LTCLNSD TED MKVAMEEMIP  
PEALQRNKFP GPSHTASYSW PPIARGCDMV VISHCGNDPL LYL PPLL TIL QMGGCYKSLP  
SRNGPLAVIV CPGWKKAQFI FELLGDYSMS SRPLHPVLLT IGLHKDEAKN MKLPRGCDVI  
VTPHSLRL L TYRSLFLR LCHLVLDEVH MLFFEANEQM FAILDNFKKN VEVEERESAP  
HQIVAVGVHW NKHIDHLVRE FMKDPCVVIT ALEEAALYGS VQQVVHLCLE CEKTSTLLQV  
LDFVPSQAQK TLIFTCVVAE TETVCKGSPA EQGDKKTKSV LLLTERNASH AVGILRYLER

ADAKIPSELY EFTAGVLEAK EDKKARRPLC PYLKAFGFCK DKRICPDRHH INPEMDIPRK  
LSNKTLPVFG HIRVIPFYIS NATNYFGRII DKHVDLYETL NAEMNEYFKE SSNKTSAEKV  
ENLGLYGLEE KTLFQRVQVL EVSQKEDTWG LGSILVKLID EGRTKLITRD QLLLLPEKFH  
TLPPQAVEFI VCRVKPADSE IEWNPKVTRY IHHKIVGKMH DAKVVLALGN TLWIDPMVHV  
TKLSNLKTSI IDYNVRAEIL SMGMGIDNSE HLEQLKKLYK EAKLPAFEDL PCQTSIPTTV  
EDTVCLQGTQ QGDGGTERGA GSQEDSDNQK PGVLSIEDIGS ETISSAPQPH GRSFHPQIKW  
FQKDDVVILK IKIRNVKDYK CKFFTDRVIF SAWVGDKFYL ADLELQGDIDR KDDCKCIKD  
DEPLITLAKE KQECWCGLLK QRNPNVAFDF DHWEECEEDS PFSKVVNSKN LSCKVAALAE  
SSGSSSDTTD GSESE

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Tdrd12 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. 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 baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate

## Product Details

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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.

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Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Sterility: 0.22 µm filtered

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Endotoxin Level: Protein is endotoxin free.

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Grade: Crystallography grade

## Target Details

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Target: TDRD12

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Alternative Name: Tdrd12 ([TDRD12 Products](#))

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Background: Probable ATP-binding RNA helicase required during spermatogenesis to repress 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 (PubMed:24067652). Involved in the secondary piRNAs metabolic process (PubMed:24067652). Acts via the PET complex, a multiprotein complex required during the secondary piRNAs metabolic process for the PIWIL2 slicing-triggered loading of PIWIL4 piRNAs (PubMed:26669262).  
{ECO:0000269|PubMed:24067652, ECO:0000269|PubMed:26669262}.

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Molecular Weight: 138.6 kDa Including tag.

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UniProt: [Q9CWU0](#)

## 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.

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Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

## Application Details

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Restrictions: For Research Use only

## Handling

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Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

## Images

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