

# Datasheet for ABIN3079164 **DTD1 Protein (AA 1-209) (Strep Tag)**



#### Overview

Quantity:	1 mg
Target:	DTD1
Protein Characteristics:	AA 1-209
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DTD1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### **Product Details**

## Sequence:

MKAVVQRVTR ASVTVGGEQI SAIGRGICVL LGISLEDTQK ELEHMVRKIL NLRVFEDESG
KHWSKSVMDK QYEILCVSQF TLQCVLKGNK PDFHLAMPTE QAEGFYNSFL EQLRKTYRPE
LIKDGKFGAY MQVHIQNDGP VTIELESPAP GTATSDPKQL SKLEKQQQRK EKTRAKGPSE
SSKERNTPRK EDRSASSGAE GDVSSEREP

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 posttranslational 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 against its specific reference buffer.
- · We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression
	System (AliCE®).
Purity:	> 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Target Details	
Target:	DTD1
Alternative Name:	DTD1 (DTD1 Products)
Background:	D-aminoacyl-tRNA deacylase 1 (DTD) (EC 3.1.1.96) (DNA-unwinding element-binding protein B)
	(DUE-B) (Gly-tRNA(Ala) deacylase) (Histidyl-tRNA synthase-related),FUNCTION: Possible
	ATPase (PubMed:15653697) involved in DNA replication, may facilitate loading of CDC45 onto

pre-replication complexes (PubMed:20065034). {ECO:0000269|PubMed:15653697, ECO:0000269|PubMed:20065034}., FUNCTION: An aminoacyl-tRNA editing enzyme that deacylates mischarged D-aminoacyl-tRNAs. Also deacylates mischarged glycyl-tRNA(Ala), protecting cells against glycine mischarging by AlaRS. Acts via tRNA-based rather than protein-based catalysis, rejects L-amino acids rather than detecting D-amino acids in the active site. By recycling D-aminoacyl-tRNA to D-amino acids and free tRNA molecules, this enzyme counteracts the toxicity associated with the formation of D-aminoacyl-tRNA entities in vivo and helps enforce protein L-homochirality. {ECO:0000250|UniProtKB:Q8IIS0}.

Molecular Weight:

23.4 kDa

UniProt:

O8TEA8

### **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:

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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.

# Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)