antibodies

# Datasheet for ABIN3095139 RWDD3 Protein (AA 1-267) (Strep Tag)





### Overview

Quantity:	1 mg
Target:	RWDD3
Protein Characteristics:	AA 1-267
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RWDD3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	MAEPVQEELS VLAAIFCRPH EWEVLSRSET DGTVFRIHTK AEGFMDVDIP LELVFHLPVN
	YPSCLPGISI NSEQLTRAQC VTVKENLLEQ AESLLSEPMV HELVLWIQQN LRHILSQPET
	GSGSEKCTFS TSTTMDDGLW ITLLHLDHMR AKTKYVKIVE KWASDLRLTG RLMFMGKIIL
	ILLQGDRNNL KEYLILQKTS KVDVDSSGKK CKEKMISVLF ETKVQTEHKR FLAFEVKEYS
	ALDELQKEFE TAGLKKLFSE FVLALVK
	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
	system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.
Characteristics:	
Characteristics:	have a special request, please contact us.

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- 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 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 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.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):
	<ol> <li>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.</li> <li>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.</li> </ol>
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)

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## Product Details

Grade:

Crystallography grade

# Target Details

Target:	RWDD3
Alternative Name:	RWDD3 (RWDD3 Products)
Background:	RWD domain-containing protein 3 (RWD domain-containing sumoylation enhancer)
	(RSUME),FUNCTION: Enhancer of SUMO conjugation. Via its interaction with UBE2I/UBC9,
	increases SUMO conjugation to proteins by promoting the binding of E1 and E2 enzymes,
	thioester linkage between SUMO and UBE2I/UBC9 and transfer of SUMO to specific target
	proteins which include HIF1A, PIAS, NFKBIA, NR3C1 and TOP1. Isoform 1 and isoform 2
	positively regulate the NF-kappa-B signaling pathway by enhancing the sumoylation of NF-
	kappa-B inhibitor alpha (NFKBIA), promoting its stabilization which consequently leads to an
	increased inhibition of NF-kappa-B transcriptional activity. Isoform 1 and isoform 2 negatively
	regulate the hypoxia-inducible factor-1 alpha (HIF1A) signaling pathway by increasing the
	sumoylation of HIF1A, promoting its stabilization, transcriptional activity and the expression o
	its target gene VEGFA during hypoxia. Isoform 2 promotes the sumoylation and transcriptiona
	activity of the glucocorticoid receptor NR3C1 and enhances the interaction of SUMO1 and
	NR3C1 with UBE2I/UBC9. Has no effect on ubiquitination. {ECO:0000269 PubMed:17956732,
	EC0:0000269 PubMed:22009797, EC0:0000269 PubMed:23469069,
	ECO:0000269 PubMed:23508108}.
Molecular Weight:	30.5 kDa
UniProt:	Q9Y3V2
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:	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

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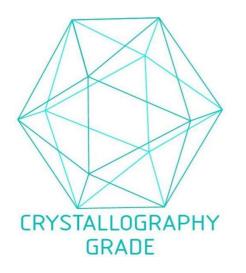
Application Details	

	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.
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

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