

Datasheet for ABIN3096352  
**WDR48 Protein (AA 1-677) (Strep Tag)**



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1 Image

Overview

Quantity:	1 mg
Target:	WDR48
Protein Characteristics:	AA 1-677
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This WDR48 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MAAHHRQNTA GRRKVQVSYV IRDEVEKYNR NGVNALQLDP ALNRLFTAGR DSIIRIWSVN QHKQDPYIAS MEHHTDWWND IVLCCNGKTL ISASSDTTVK VWNAHKGFCM SLRTHKDYV KALAYAKDKE LVASAGLDRQ IFLWDVNTLT ALTASNNTVT TSSLSGNKDS IYSLAMNQLG TIIVSGSTEK VLRVWDPRTC AKLMKLGHT DNVKALLLN DGTQCLSGSS DGTIRLWSLG QQRCIATYRV HDEGVWALQV NDAFTHVYSG GRDRKIYCTD LRNPDIRVLI CEEKAPVLKM ELDRSADPPP AIWVATTKST VNKWTLKGIH NFRASGDYDN DCTNPITPLC TQPDQVIKGG ASIIQCHILN DKRHILTKDT NNNVAYWDVL KACKVEDLGK VDFEDEIKKR FKMVYVPNWF SVDLKTGMLT ITLDESDCFA AWVSAKDAGF SSPDGSPPKL NLGGLLLQAL LEYWPRTHTVN PMDEEENEVN HVNGEQENRV QKGNQYFQVP PHTPVIFGEA GGRTLFRLLC RDSGGETESM LLNETVPQWV IDITVDKNMP KFNKIPFYLQ PHASSGAKTL KKDRLSASDM LQVRKVMESH YEKIINLDNE SQTSSSSNNE KPGEQEKEED IAVLAEKIE LLCQDQVLDP NMDLRTVKHF IWKSGDLTL HYRQKST

**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!

#### 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®):

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## Product Details

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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.

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Purity: >80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

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Grade: Crystallography grade

## Target Details

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Target: WDR48

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Alternative Name: WDR48 ([WDR48 Products](#))

Background: WD repeat-containing protein 48 (USP1-associated factor 1) (WD repeat endosomal protein) (p80),FUNCTION: Regulator of deubiquitinating complexes, which acts as a strong activator of USP1, USP12 and USP46 (PubMed:18082604, PubMed:19075014, PubMed:31253762, PubMed:26388029). Enhances the USP1-mediated deubiquitination of FANCD2, USP1 being almost inactive by itself (PubMed:18082604, PubMed:31253762). Activates deubiquitination by increasing the catalytic turnover without increasing the affinity of deubiquitinating enzymes for the substrate (PubMed:19075014, PubMed:27373336). Also activates deubiquitinating activity of complexes containing USP12 (PubMed:19075014, PubMed:27650958, PubMed:27373336). In complex with USP12, acts as a potential tumor suppressor by positively regulating PHLPP1 stability (PubMed:24145035). Docks at the distal end of the USP12 fingers domain and induces a cascade of structural changes leading to the activation of the enzyme (PubMed:27650958, PubMed:27373336). Together with RAD51AP1, promotes DNA repair by stimulating RAD51-mediated homologous recombination (PubMed:27463890, PubMed:27239033, PubMed:32350107). Binds single-stranded DNA (ssDNA) and double-stranded DNA (dsDNA) (PubMed:27239033, PubMed:31253762, PubMed:32350107). DNA-binding is required both for USP1-mediated deubiquitination of FANCD2 and stimulation of RAD51-mediated homologous recombination: both WDR48/UAF1 and RAD51AP1 have coordinated role in DNA-binding during these processes (PubMed:31253762, PubMed:32350107). Together with ATAD5 and by regulating USP1 activity, has a role in PCNA-mediated translesion synthesis (TLS) by deubiquitinating monoubiquitinated PCNA (PubMed:20147293). Together with ATAD5, has a role in recruiting RAD51 to stalled forks during replication stress (PubMed:31844045). {ECO:0000269|PubMed:18082604, ECO:0000269|PubMed:19075014,

## Target Details

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ECO:0000269|PubMed:20147293, ECO:0000269|PubMed:24145035, ECO:0000269|PubMed:26388029, ECO:0000269|PubMed:27239033, ECO:0000269|PubMed:27373336, ECO:0000269|PubMed:27463890, ECO:0000269|PubMed:27650958, ECO:0000269|PubMed:31253762, ECO:0000269|PubMed:31844045, ECO:0000269|PubMed:32350107}, FUNCTION: (Microbial infection) In case of infection by Herpesvirus saimiri, may play a role in vesicular transport or membrane fusion events necessary for transport to lysosomes. Induces lysosomal vesicle formation via interaction with Herpesvirus saimiri tyrosine kinase-interacting protein (TIP). Subsequently, TIP recruits tyrosine-protein kinase LCK, resulting in down-regulation of T-cell antigen receptor TCR. May play a role in generation of enlarged endosomal vesicles via interaction with TIP (PubMed:12196293). In case of infection by papillomavirus HPV11, promotes the maintenance of the viral genome via its interaction with HPV11 helicase E1 (PubMed:18032488). {ECO:0000269|PubMed:12196293, ECO:0000269|PubMed:18032488}.

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Molecular Weight: 76.2 kDa

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UniProt: [Q8TAF3](#)

## 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.

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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)

## Images

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