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Datasheet for ABIN3096441

## ZNF451 Protein (AA 1-1061) (Strep Tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	ZNF451
Protein Characteristics:	AA 1-1061
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This ZNF451 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence: MGDPGSEIIE SVPPAGPEAS ESTTDENEDD IQFVSEGPLR PVLEYIDLVS SDDEEPSTSY  
TDENIKRKDH IDYQKDKVAL TLARLARHVE VEKQQKEEKN RAFREKIDFQ HAHGLQELEF  
IRGHSDTEAA RLCVDQWLKM PGLKTGTINC GTKSSFRRGG HTWVSGKPIL CPIMHCNKEF  
DNGHLLLGHL KRFDHSPCDP TITLHGPFSS SFACVVCYKK FVTQQQYRDH LFDKEATDDG  
HNNNLLPQII QCFACPNCFL LFSRKEECSK HMSGKNHFHQ SFKLGDNKGI AHPISFPSFA  
KKLLISLCKD VPFQVKCVAC HKTLRSHMEL TAHFRVHCRN AGPVAVAEKS ITQVAEKFIL  
RGYCPDCNQV FVDETSTQNH KQNSGHKVRV INSVEESVLL YCHSSEGND PSSDLHLLLD  
QSKFSSLKRT MSIKESSLE CIAIPKKKMN LKDKSHEGVA CVQKEKSVVK TWFCENQRF  
PSEDAVEKHV FSANTMGYKC VVCGKVCDDS GVIRLHMSRI HGG AHLN NFL FWCRTCKKEL  
TRKDTIMAHV TEFHNGHRYF YEMDEVEGET LPSSSTTLDN LTANKPSSAI TVIDHSPANS  
SPRGKWQCRI CEDMFDSQEY VKQHCMSLAS HKFHRYSCAH CRKPFHKIET LYRHCQDEHD  
NEIKIKYFCG LCDLIFNVEE AFLSHYEEHH SIDYVFVSEK TETSIKTEDD FPIVETSQNL

TCGCRESYIC KVNPKEDYSR CLQIMLDKGGK LWFRCSLCSA TAQNLTDMNT HIHQVHKEKS  
DEEEQYVIK CGTCTKAFHD PESAQHFHR KHCFLQKPSV AHFGSEKSNL YKFTASASHT  
ERKLLQAINY SKSLDMEKGV ENDSYQNI EIVELPDL YLRTMTHIV VDFDNWSNFF  
GHLPGHLNQG TFIWGFQGGN TNWKPLNCK IYNYLNRIG FFLHPRCSKR KDAADFAICM  
HAGRLDEQLP KQIPFTILSG DQGFLELENQ FKKTQRPAAHI LNPHHLEGDM MCALLNSISD  
TTKECDSDDN MGAKNTSIGE EFISTEDVEL EEAIRRSLEE M

**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.

## Product Details

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- 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.

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Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none"><li>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.</li><li>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.</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)
Grade:	Crystallography grade

## Target Details

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Target:	ZNF451
Alternative Name:	ZNF451 ( <a href="#">ZNF451 Products</a> )
Background:	<p>E3 SUMO-protein ligase ZNF451 (EC 2.3.2.-) (Coactivator for steroid receptors) (E3 SUMO-protein transferase ZNF451) (Zinc finger protein 451),FUNCTION: E3 SUMO-protein ligase, has a preference for SUMO2 and SUMO3 and facilitates UBE2I/UBC9-mediated sumoylation of target proteins (PubMed:26524493, PubMed:26524494). Plays a role in protein SUMO2 modification in response to stress caused by DNA damage and by proteasome inhibitors (in vitro). Required for MCM4 sumoylation (By similarity). Has no activity with SUMO1 (PubMed:26524493). Preferentially transfers an additional SUMO2 chain onto the SUMO2 consensus site 'Lys-11' (PubMed:26524493). Negatively regulates transcriptional activation mediated by the SMAD4 complex in response to TGF-beta signaling. Inhibits EP300-mediated acetylation of histone H3 at 'Lys-9' (PubMed:24324267). Plays a role in regulating the transcription of AR targets (PubMed:18656483). {ECO:0000250 UniProtKB:Q8C0P7, ECO:0000269 PubMed:18656483, ECO:0000269 PubMed:24324267, ECO:0000269 PubMed:26524493, ECO:0000269 PubMed:26524494}.</p>
Molecular Weight:	121.5 kDa
UniProt:	<a href="#">Q9Y4E5</a>

## 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:** 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!

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**Restrictions:** For Research Use only

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## Handling

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**Format:** Liquid

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**Buffer:** The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

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**Handling Advice:** Avoid repeated freeze-thaw cycles.

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**Storage:** -80 °C

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**Storage Comment:** Store at -80°C.

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**Expiry Date:** Unlimited (if stored properly)

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