Datasheet for ABIN3136184

TDP1 Protein (AA 1-609) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	TDP1
Protein Characteristics:	AA 1-609
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TDP1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MSQESSYGKW TISSSDESED EKPKPDKPSA SSHPQAGQGV SKELIYTCSE ARKVAHKRQI SPVKFNDADS VLPHKKQKSD SPEGLGWCLS SSDDDQQPDV TQQEQPKRVL PQEKKHVSSP DVTTAQKVVD RSPPASLRPQ RADDEYETSG EGQDIWDMLD KGNPFQFYLT RVSGIKAKYN SKALHIKDIL SPLFGTLVSS AQFNYCFDVD WLIKQYPPEF RKNPILLVHG DKREAKADLH AQAKPYANIS LCQAKLDIAF GTHHTKMMLL LYEEGLRVVI HTSNLIREDW HQKTQGIWLS PLYPRIDQGS HTAGESSTRF KADLTSYLTA YNAPPLQEWI DIIQEHDLSE TNVYLIGSTP GRFQGSHRDN WGHFRLRKLL QAHAPSTPKG ECWPIVGQFS SIGSLGPDES KWLCSEFKDS LLALREEGRP PGKSAVPLHL IYPSVENVRT SLEGYPAGGS LPYSIQTAEK QRWLHSYFHK WSAETSGRSN AMPHIKTYMR PSPDFSKLAW FLVTSANLSK AAWGALEKNG TQLMIRSYEL GVLFLPSAFG LDTFKVKQKF FSSSCEPTAS FPVPYDLPPE LYRSKDRPWI WNIPYVKAPD THGNMWVPS **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 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®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag

Product Details

	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.
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)

Target Details

Target:	TDP1
Alternative Name:	Tdp1 (TDP1 Products)
Background:	Tyrosyl-DNA phosphodiesterase 1 (Tyr-DNA phosphodiesterase 1) (EC 3.1.4.-) (Protein expressed in male leptotene and zygotene spermatocytes 501) (MLZ-501),FUNCTION: DNA repair enzyme that can remove a variety of covalent adducts from DNA through hydrolysis of a 3'-phosphodiester bond, giving rise to DNA with a free 3' phosphate. Catalyzes the hydrolysis of dead-end complexes between DNA and the topoisomerase I active site tyrosine residue. Hydrolyzes 3'-phosphoglycolates on protruding 3' ends on DNA double-strand breaks due to DNA damage by radiation and free radicals. Acts on blunt-ended double-strand DNA breaks and on single-stranded DNA. Has low 3'exonuclease activity and can remove a single nucleoside from the 3'end of DNA and RNA molecules with 3'hydroxyl groups. Has no exonuclease activity towards DNA or RNA with a 3'phosphate (By similarity). {ECO:0000250|UniProtKB:Q9NUW8, ECO:0000269|PubMed:17914460, ECO:0000269|PubMed:17948061}.
Molecular Weight:	68.7 kDa
UniProt:	Q8BJ37

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

Application Details

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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)

