Datasheet for ABIN7555873

TDP2 Protein (AA 1-362) (His tag)

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Overview

Quantity:	1 mg
Target:	TDP2
Protein Characteristics:	AA 1-362
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TDP2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat TDP2 Protein expressed in mammalien cells.
Sequence:	MELGSCLEGG REAAEEEGEP EVKKRRLLCV EFASVASCDA AVAQCFLAEN DWEMERALNS YFEPPVEESA LERRPETISE PKTYVDLTNE ETTDSTTSKI SPSEDTQQEN GSMFSLITWN IDGLDLNNLS ERARGVCSYL ALYSPDVIFL QEVIPPYYSY LKKRSSNYEI ITGHEEGYFT AIMLKKSRVK LKSQEIIPFP STKMMRNLLC VHVNVSGNEL CLMTSHLEST RGHAAERMNQ LKMVLKKMQE APESATVIFA GDTNLRDREV TRCGGLPNNI VDVWEFLGKP KHCQYTWDTQ MNSNLGITAA CKLRFDRIFF RAAAEEGHII PRSLDLLGLE KLDCGRFPSD HWGLLCNLDI IL **Sequence without tag. The proposed Purification-Tag is based on experiences 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:

Product Details

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalien cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	TDP2
Alternative Name:	TDP2 (TDP2 Products)
Background:	Tyrosyl-DNA phosphodiesterase 2 (Tyr-DNA phosphodiesterase 2) (hTDP2) (EC 3.1.4.-) (5'-tyrosyl-DNA phosphodiesterase) (5'-Tyr-DNA phosphodiesterase) (ETS1-associated protein 2) (ETS1-associated protein II) (EAPII) (TRAF and TNF receptor-associated protein) (Tyrosyl-RNA phosphodiesterase) (VPg unlinkase),FUNCTION: DNA repair enzyme that can remove a variety of covalent adducts from DNA through hydrolysis of a 5'-phosphodiester bond, giving rise to DNA with a free 5' phosphate. Catalyzes the hydrolysis of dead-end complexes between DNA and the topoisomerase 2 (TOP2) active site tyrosine residue. The 5'-tyrosyl DNA phosphodiesterase activity can enable the repair of TOP2-induced DNA double-strand breaks/DSBs without the need for nuclease activity, creating a 'clean' DSB with 5'-phosphate termini that are ready for ligation (PubMed:27099339, PubMed:27060144). Thereby, protects the transcription of many genes involved in neurological development and maintenance from the abortive activity of TOP2. Hydrolyzes 5'-phosphoglycolates on protruding 5' ends on DSBs due to DNA damage by radiation and free radicals. Has preference for single-stranded DNA or duplex DNA with a 4 base pair overhang as substrate. Acts as a regulator of ribosome

Target Details

	biogenesis following stress. Has also 3'-tyrosyl DNA phosphodiesterase activity, but less efficiently and much slower than TDP1. Constitutes the major if not only 5'-tyrosyl-DNA phosphodiesterase in cells. Also acts as an adapter by participating in the specific activation of MAP3K7/TAK1 in response to TGF-beta: associates with components of the TGF-beta receptor-TRAF6-TAK1 signaling module and promotes their ubiquitination dependent complex formation. Involved in non-canonical TGF-beta induced signaling routes. May also act as a negative regulator of ETS1 and may inhibit NF-kappa-B activation. {ECO:0000269|PubMed:19794497, ECO:0000269|PubMed:21030584, ECO:0000269|PubMed:21921940, ECO:0000269|PubMed:21980489, ECO:0000269|PubMed:22405347, ECO:0000269|PubMed:22822062, ECO:0000269|PubMed:24658003, ECO:0000269|PubMed:27060144, ECO:0000269|PubMed:27099339}., FUNCTION: (Microbial infection) Also acts as a 5'-tyrosyl-RNA phosphodiesterase following picornavirus infection: its activity is hijacked by picornavirus and acts by specifically cleaving the protein-RNA covalent linkage generated during the viral genomic RNA replication steps of a picornavirus infection, without impairing the integrity of viral RNA. {ECO:0000269|PubMed:22908287}.
Molecular Weight:	40.9 kDa
UniProt:	O95551

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.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months