Datasheet for ABIN7555761

TDG Protein (AA 1-410) (His tag)

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Overview

Quantity:	1 mg
Target:	TDG
Protein Characteristics:	AA 1-410
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TDG protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat TDG Protein expressed in mammalien cells.
Sequence:	MEAENAGSYS LQQAQAFYTF PFQQLMAEAP NMAVVNEQQM PEEVPAPAPA QEPVQEAPKG RKRKPRTTEP KQPVEPKKPV ESKKSGKSAK SKEKQEKITD TFKVKRKVDR FNGVSEAELL TKTLPDILTF NLDIVIIGIN PGLMAAYKGH HYPGPGNHFW KCLFMSGLSE VQLNHMDDHT LPGKYGIGFT NMVERTTPGS KDLSSKEFRE GGRILVQKLQ KYQPRIAVFN GKCIYEIFSK EVFGVKVKNL EFGLQPHKIP DTETLCYVMP SSSARCAQFP RAQDKVHYYI KLKDLRDQLK GIERNMDVQE VQYTFDLQLA QEDAKKMAVK EEKYDPGYEA AYGGAYGENP CSSEPCGFSS NGLIESVELR GESAFSGIPN GQWMTQSFTD QIPSFSNHCG TQEQEEESHA **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:	TDG
Alternative Name:	TDG (TDG Products)
Background:	G/T mismatch-specific thymine DNA glycosylase (EC 3.2.2.29) (Thymine-DNA glycosylase) (hTDG),FUNCTION: DNA glycosylase that plays a key role in active DNA demethylation: specifically recognizes and binds 5-formylcytosine (5fC) and 5-carboxylcytosine (5caC) in the context of CpG sites and mediates their excision through base-excision repair (BER) to install an unmethylated cytosine. Cannot remove 5-hydroxymethylcytosine (5hmC). According to an alternative model, involved in DNA demethylation by mediating DNA glycolase activity toward 5-hydroxymethyluracil (5hmU) produced by deamination of 5hmC. Also involved in DNA repair by acting as a thymine-DNA glycosylase that mediates correction of G/T mispairs to G/C pairs: in the DNA of higher eukaryotes, hydrolytic deamination of 5-methylcytosine to thymine leads to the formation of G/T mismatches. Its role in the repair of canonical base damage is however minor compared to its role in DNA demethylation. It is capable of hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of the DNA and a mispaired thymine. In addition to the G/T, it can remove thymine also from C/T and T/T mispairs in the order G/T >> C/T > T/T. It has no detectable activity on apyrimidinic sites and does not catalyze the removal

Target Details

	of thymine from A/T pairs or from single-stranded DNA. It can also remove uracil and 5-bromouracil from mispairs with guanine. {ECO:0000269|PubMed:21862836, ECO:0000269|PubMed:22327402, ECO:0000269|PubMed:22573813, ECO:0000269|PubMed:22962365, ECO:0000269|PubMed:8127859, ECO:0000269|PubMed:8407958, ECO:0000269|PubMed:8662714}.
Molecular Weight:	46.1 kDa
UniProt:	Q13569
Pathways:	DNA Damage Repair, Chromatin Binding

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