Datasheet for ABIN7547201

DOM3Z Protein (AA 1-396) (His tag)

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Overview

Quantity:	1 mg
Target:	DOM3Z
Protein Characteristics:	AA 1-396
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DOM3Z protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DXO Protein expressed in mammalian cells.
Sequence:	MDPRGTKRGA EKTEVAEPRN KLPRPAPSLP TDPALYSGPF PFYRRPSELG CFSLDAQRQY HGDARALRYY SPPPTNGPGP NFDLRDGYPD RYQPRDEEVQ ERLDHLLCWL LEHRGRLEGG PGWLAEAIVT WRGHLTKLLT TPYERQEGWQ LAASRFQGTL YLSEVETPNA RAQRLARPPL LRELMYMGYK FEQYMCADKP GSSPDPSGEV NTNVAFCSVL RSRLGSHPLL FSGEVDCTDP QAPSTQPPTC YVELKTSKEM HSPGQWRSFY RHKLLKWWAQ SFLPGVPNVV AGFRNPDGFV SSLKTFPTMK MFEYVRNDRD GWNPSVCMNF CAAFLSFAQS TVVQDDPRLV HLFSWEPGGP VTVSVHQDAP YAFLPIWYVE AMTQDLPSPP KTPSPK **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Product Details

Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian 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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	DOM3Z
Alternative Name:	DXO (DOM3Z Products)
Background:	Decapping and exoribonuclease protein (DXO) (EC 3.6.1.-) (5'-3' exoribonuclease DXO) (EC 3.1.13.-) (Dom-3 homolog Z) (NAD-capped RNA hydrolase DXO) (DeNADding enzyme DXO) (EC 3.6.1.-),FUNCTION: Decapping enzyme for NAD-capped RNAs: specifically hydrolyzes the nicotinamide adenine dinucleotide (NAD) cap from a subset of RNAs by removing the entire NAD moiety from the 5'-end of an NAD-capped RNA (PubMed:28283058). The NAD-cap is present at the 5'-end of some RNAs and snoRNAs (PubMed:28283058). In contrast to the canonical 5'-end N7 methylguanosine (m7G) cap, the NAD cap promotes mRNA decay (PubMed:28283058). Preferentially acts on NAD-capped transcripts in response to environmental stress (PubMed:31101919). Also acts as a non-canonical decapping enzyme that removes the entire cap structure of m7G capped or incompletely capped RNAs and mediates their subsequent degradation (By similarity). Specifically degrades pre-mRNAs with a defective 5'-end m7G cap and is part of a pre-mRNA capping quality control (By similarity). Has decapping activity toward incomplete 5'-end m7G cap mRNAs such as unmethylated 5'-end-

Target Details

	capped RNA (cap0), while it has no activity toward 2'-O-ribose methylated m7G cap (cap1) (PubMed:29601584). In contrast to canonical decapping enzymes DCP2 and NUDT16, which cleave the cap within the triphosphate linkage, the decapping activity releases the entire cap structure GpppN and a 5'-end monophosphate RNA (By similarity). Also has 5'-3' exoribonuclease activities: The 5'-end monophosphate RNA is then degraded by the 5'-3' exoribonuclease activity, enabling this enzyme to decap and degrade incompletely capped mRNAs (PubMed:29601584). Also possesses RNA 5'-pyrophosphohydrolase activity by hydrolyzing the 5'-end triphosphate to release pyrophosphates (By similarity). Exhibits decapping activity towards FAD-capped RNAs (PubMed:32374864). Exhibits decapping activity towards dpCoA-capped RNAs in vitro (By similarity). {ECO:0000250|UniProtKB:O70348, ECO:0000269|PubMed:28283058, ECO:0000269|PubMed:29601584, ECO:0000269|PubMed:31101919, ECO:0000269|PubMed:32374864}.
Molecular Weight:	44.9 kDa
UniProt:	O77932

Application Details

Application Notes:	We expect the protein to work for functional studies. 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