Datasheet for ABIN7554891

PAN3 Protein (AA 1-887) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	PAN3
Protein Characteristics:	AA 1-887
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PAN3 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant PAN3 Protein expressed in mammalian cells.
Sequence:	MNSGGGLPPP SAAASPSSSS LAAAVAVVAP PGVGGVPGGA AVGVKLKYCR YYAKDKTCFY GEECQFLHED PAAGAAPGLG LHSNSVPLAL AGAPVAGFPP GAVAGGGAGP PPGPKKPDLG DPGTGAAAGG GGSSGGLDGP RLAIPGMDGG ALTDTSLTDS YFSTSFIGVN GFGSPVETKY PLMQRMTNSS SSPSLLNDSA KPYSAHDPLT SPASSLFNDF GALNISQRRK PRKYRLGMLE ERLVPMGSKA RKAKNPIGCL ADRCKSGVPI NMVWWNRVTE NNLQTPNPTA SEFIPKGGST SRLSNVSQSN MSAFSQVFSH PSMGSPATAG LAPGMSLSAG SSPLHSPKIT PHTSPAPRRR SHTPNPASYM VPSSASTSVN NPVSQTPSSG QVIQKETVGG TTYFYTDTTP APLTGMVFPN YHIYPPTAPH VAYMQPKANA PSFFMADELR QELINRHLIT MAQIDQADMP AVPTEVDSYH SLFPLEPLPP PNRIQKSSNF GYITSCYKAV NSKDDLPYCL RRIHGFRLVN TKCMVLVDMW KKIQHSNIVT LREVFTTKAF AEPSLVFAYD FHAGGETMMS RHFNDPNADA YFTKRKWGQH EGPLPRQHAG LLPESLIWAY IVQLSSALRT IHTAGLACRV MDPTKILITG KTRLRVNCVG VFDVLTFDNS QNNNPLALMA QYQQADLISL GKVVLALACN SLAGIQRENL QKAMELVTIN

Product Details

	YSSDLKNLIL YLLTDQNRMR SVNDIMPMIG ARFYTQLDAA QMRNDVIEED LAKEVQNGRL FRLLAKLGTI NERPEFQKDP TWSETGDRYL LKLFRDHLFH QVTEAGAPWI DLSHIISCLN KLDAGVPEKI SLISRDEKSV LVVTYSDLKR CFENTFQELI AAANGQL **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.
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:	PAN3
Alternative Name:	PAN3 (PAN3 Products)
Background:	PAN2-PAN3 deadenylation complex subunit PAN3 (PAB1P-dependent poly(A)-specific ribonuclease) (Poly(A)-nuclease deadenylation complex subunit 3) (PAN deadenylation complex subunit 3),FUNCTION: Regulatory subunit of the poly(A)-nuclease (PAN) deadenylation complex, one of two cytoplasmic mRNA deadenylases involved in general and miRNA-mediated mRNA turnover. PAN specifically shortens poly(A) tails of RNA and the activity is

Target Details

	stimulated by poly(A)-binding protein (PABP). PAN deadenylation is followed by rapid degradation of the shortened mRNA tails by the CCR4-NOT complex. Deadenylated mRNAs are then degraded by two alternative mechanisms, namely exosome-mediated 3'-5' exonucleolytic degradation, or deadenylation-dependent mRNA decapping and subsequent 5'-3' exonucleolytic degradation by XRN1. PAN3 acts as a regulator for PAN activity, recruiting the catalytic subunit PAN2 to mRNA via its interaction with RNA and PABP, and to miRNA targets via its interaction with GW182 family proteins. {ECO:0000255|HAMAP-Rule:MF_03181, ECO:0000269|PubMed:14583602, ECO:0000269|PubMed:23932717}., FUNCTION: [Isoform 1]: Decreases PAN2-mediated deadenylation, possibly by preventing progression into the second CCR4-NOT mediated stage of biphasic deadenylation. Has a significant effect on mRNA stability, generally stabilizing a subset of the transcriptome. Stabilizes mRNAs degraded by the AU-rich element (ARE)-mediated mRNA decay pathway but promotes degradation of mRNAs by the microRNA-mediated pathway (PubMed:28559491). Its activity influences mRNP remodeling, specifically reducing formation of a subset of P-bodies containing GW220, an isoform of TNRC6A (PubMed:28559491). {ECO:0000269|PubMed:28559491}., FUNCTION: [Isoform 3]: Enhances PAN2 deadenylase activity and has an extensive effect on mRNA stability, generally enhancing mRNA decay across the transcriptome by multiple pathways, including the AU-rich element (ARE)-mediated pathway, microRNA-mediated pathway and the nonsense-mediated pathway (NMD) (PubMed:28559491). Its activity is required for efficient P-body formation (PubMed:28559491). May be involved in regulating mRNAs of genes involved in cell cycle progression and cell proliferation (PubMed:28559491). {ECO:0000269|PubMed:28559491}.
Molecular Weight:	95.6 kDa
UniProt:	Q58A45

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

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months