Datasheet for ABIN3094862

PUM1 Protein (AA 2-1186) (His tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	PUM1
Protein Characteristics:	AA 2-1186
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PUM1 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	SVACVLKRKA VLWQDSFSPH LKHHPQEPAN PNMPVVLTSG TGSQAQPQPA ANQALAAGTH SSPVPGSIGV AGRSQDDAMV DYFFQRQHGE QLGGGGSGGG GYNNSKHRWP TGDNIHAEHQ VRSMDELNHD FQALALEGRA MGEQLLPGKK FWETDESSKD GPKGIFLGDQ WRDSAWGTSD HSVSQPIMVQ RRPGQSFHVN SEVNSVLSPR SESGGLGVSM VEYVLSSSPG DSCLRKGGFG PRDADSDEND KGEKKNKGTF DGDKLGDLKE EGDVMDKTNG LPVQNGIDAD VKDFSRTPGN CQNSANEVDL LGPNQNGSEG LAQLTSTNGA KPVEDFSNME SQSVPLDPME HVGMEPLQFD YSGTQVPVDS AAATVGLFDY NSQQQLFQRP NALAVQQLTA AQQQQYALAA AHQPHIGLAP AAFVPNPYII SAAPPGTDPY TAGLAAAATL GPAVVPHQYY GVTPWGVYPA SLFQQQAAAA AAATNSANQQ TTPQAQQGQQ QVLRGGASQR PLTPNQNQQG QQTDPLVAAA AVNSALAFGQ GLAAGMPGYP VLAPAAYYDQ TGALVVNAGA RNGLGAPVRL VAPAPVIISS SAAQAAVAAA AASANGAAGG LAGTTNGPFR PLGTQQPQPQ PQQQPNNNLA SSSFYGNNSL NSNSQSSSLF SQGSAQPANT SLGFGSSSSL GATLGSALGG FGTAVANSNT GSGSRRDSLT GSSDLYKRTS

	SSLTPIGHSF YNGLSFSSSP GPVGMPLPSQ GPGHSQTPPP SLSSHGSSSS LNLGGLTNGS GRYISAAPGA EAKYRSASSA SSLFSPSSTL FSSSRLRYGM SDVMPSGRSR LLEDFRNNRY PNLQLREIAG HIMEFSQDQH GSRFIQLKLE RATPAERQLV FNEILQAAYQ LMVDVFGNYV IQKFFEFGSL EQKLALAERI RGHVLSLALQ MYGCRVIQKA LEFIPSDQQN EMVRELDGHV LKCVKDQNGN HVVQKCIECV QPQSLQFIID AFKGQVFALS THPYGCRVIQ RILEHCLPDQ TLPILEELHQ HTEQLVQDQY GNYVIQHVLE HGRPEDKSKI VAEIRGNVLV LSQHKFASNV VEKCVTHASR TERAVLIDEV CTMNDGPHSA LYTMMKDQYA NYVVQKMIDV AEPGQRKIVM HKIRPHIATL RKYTYGKHIL AKLEKYYMKN GVDLGPICGP PNGII **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human PUM1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. 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. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.

Product Details

	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:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	PUM1
Alternative Name:	PUM1 (PUM1 Products)
Background:	Sequence-specific RNA-binding protein that acts as a post-transcriptional repressor by binding the 3'-UTR of mRNA targets. Binds to an RNA consensus sequence, the Pumilio Response Element (PRE), 5'-UGUANAUA-3', that is related to the Nanos Response Element (NRE) (PubMed:21572425, PubMed:18328718, PubMed:21653694, PubMed:21397187). Mediates post-transcriptional repression of transcripts via different mechanisms: acts via direct recruitment of the CCR4-POP2-NOT deadenylase leading to translational inhibition and mRNA degradation (PubMed:22955276). Also mediates deadenylation-independent repression by promoting accessibility of miRNAs (PubMed:18776931, PubMed:20818387, PubMed:20860814, PubMed:22345517). Following growth factor stimulation, phosphorylated and binds to the 3'-UTR of CDKN1B/p27 mRNA, inducing a local conformational change that exposes miRNA-binding sites, promoting association of miR-221 and miR-222, efficient suppression of CDKN1B/p27 expression, and rapid entry to the cell cycle (PubMed:20818387). Acts as a post-transcriptional repressor of E2F3 mRNAs by binding to its 3'-UTR and facilitating miRNA regulation (PubMed:22345517). Represses a program of genes necessary to maintain genomic stability such as key mitotic, DNA repair and DNA replication factors. Its ability to repress those target mRNAs is regulated by the lncRNA NORAD (non-coding RNA activated by DNA damage) which, due to its high abundance and multitude of PUMILIO binding sites, is able to sequester a significant fraction of PUM1 and PUM2 in the cytoplasm (PubMed:26724866). Involved in neuronal functions by regulating ATXN1 mRNA levels: acts by binding to the 3'-UTR of ATXN1 transcripts, leading to their down-regulation independently of the miRNA machinery (PubMed:25768905). Plays a role in cytoplasmic sensing of viral infection (PubMed:25340845). In testis, acts as a post-transcriptional regulator of spermatogenesis by binding to the 3'-UTR of

Target Details

	mRNAs coding for regulators of p53/TP53. Involved in embryonic stem cell renewal by facilitating the exit from the ground state: acts by targeting mRNAs coding for naive pluripotency transcription factors and accelerates their down-regulation at the onset of differentiation (By similarity). {ECO:0000250|UniProtKB:Q80U78, ECO:0000269|PubMed:18328718, ECO:0000269|PubMed:18776931, ECO:0000269|PubMed:20818387, ECO:0000269|PubMed:20860814, ECO:0000269|PubMed:21397187, ECO:0000269|PubMed:21572425, ECO:0000269|PubMed:21653694, ECO:0000269|PubMed:22345517, ECO:0000269|PubMed:22955276, ECO:0000269|PubMed:25340845, ECO:0000269|PubMed:25768905, ECO:0000269|PubMed:26724866}.
Molecular Weight:	127.3 kDa Including tag.
UniProt:	Q14671

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 gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process