

Datasheet for ABIN7555251

POLR3B Protein (AA 1-1133) (His tag)



[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	POLR3B
Protein Characteristics:	AA 1-1133
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLR3B protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat POLR3B Protein expressed in mammalian cells.
Sequence:	MDVLAEEFGN LTPEQLAAPI PTVEEKWRL PAFLKVKGLV KQHIDSFNYF INVEIKKIMK ANEKVTSDAD PMWYLKYLNI YVGLPDVEES FNVTRPVSPH ECRLRDMTYS APITVDIEYT RGSQRIIRNA LPIGRMPIML RSSNCVLTK TPAEFAKLE CPLDPGGYFI VKGVEKVILI QEQLSKNR II VEADRKGA VG ASVTSSTHEK KSRTNMAVKQ GRFYLRHNTL SEDIPV IIF KAMGVESDQE IVQMIGTEEH VMAAFGPSLE ECQKAQIFTQ MQALKYIGNK VRRQRMWGGG PKKTKIEEAR ELLASTILTH VPVKEFNRA KCIYTAVMVR RVILAQGDNK VDDR DYYGNK RLELAGQLLS LLFEDLFKKF NSEMKKIADQ VIPKQRAAQF DVVKHMRQDQ ITNGMVNAIS TGNWSLKR FK MDRQGV TQVL SRLSYISALG MMTRISSQFE KTRK VSGPRS LQPSQWGMLC PSDTPEGEAC GLVKNLALMT HITD MEDGP IVKLASNLGV EDVNLLCGEE LSYPNVFLVF LNGNILGVIR DHKKL VNTFR LMRRAGYINE FVSISTNLTD RCVYISSDGG RLCRPYIIVK KQKPAVTNKH MEELAQGYRN FEDFLHESLV EYLDVNEEND CNIALYEHTI NKDTTHLEIE

PFTLLGVCAG LIPYPHHNQS PRNTYQCAMG KQAMGTIGYN QRNRIDTLMY LLAYPQKPMV
KTKTIELIEF EKLPAQGNAT VAVMSYSGYD IEDALVLNKA SLDRGFGRCL VYKNAKCTLK
RYTNQTFDKV MGPMLDAATR KPIWRHEILD ADGICSPGEK VENKQVLVNK SMPTVTQIPL
EGSNVPQQPQ YKDVPIITYKG ATDSYIEKVM ISSNAEDAFI IKMLLRQTRR PEIGDKFSSR
HGQKGVCGLI VPQEDMPFCD SGICPDIIMN PHGFPSRMTV GKLIELLAGK AGVLDGRFHY
GTAFGGSKVK DVCEDLVRHG YNYLGKDYVT SGITGEPLA YIYFGPVYYQ KLKHMVLDMK
HARARGPRAV LTRQPTGRS RDGGLRLGEM ERDCLIGYGA SMLLLERLMI SSDAFEVDVC
GQCGLLGYSW WCHYCKSSCH VSSLRIPYAC KLLFQELQSM NIIPRLKLSK YNE **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: • 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, Western Blot
Grade:	custom-made

Target Details

Target:	POLR3B
Alternative Name:	POLR3B (POLR3B Products)
Background:	DNA-directed RNA polymerase III subunit RPC2 (RNA polymerase III subunit C2) (EC 2.7.7.6) (C128) (DNA-directed RNA polymerase III 127.6 kDa polypeptide) (DNA-directed RNA

polymerase III subunit B),FUNCTION: Catalytic core component of RNA polymerase III (Pol III), a DNA-dependent RNA polymerase which synthesizes small non-coding RNAs using the four ribonucleoside triphosphates as substrates. Synthesizes 5S rRNA, snRNAs, tRNAs and miRNAs from at least 500 distinct genomic loci (PubMed:20413673, PubMed:33558766). Pol III-mediated transcription cycle proceeds through transcription initiation, transcription elongation and transcription termination stages. During transcription initiation, Pol III is recruited to DNA promoters type I, II or III with the help of general transcription factors and other specific initiation factors. Once the polymerase has escaped from the promoter it enters the elongation phase during which RNA is actively polymerized, based on complementarity with the template DNA strand. Transcription termination involves the release of the RNA transcript and polymerase from the DNA (PubMed:20413673, PubMed:33335104, PubMed:33674783, PubMed:34675218, PubMed:33558764, PubMed:33558766). Forms Pol III active center together with the largest subunit POLR3A/RPC1. A single-stranded DNA template strand of the promoter is positioned within the central active site cleft of Pol III. Appends one nucleotide at a time to the 3' end of the nascent RNA, with POLR3A/RPC1 contributing a Mg(2+)-coordinating DxGxD motif, and POLR3B/RPC2 participating in the coordination of a second Mg(2+) ion and providing lysine residues believed to facilitate Watson-Crick base pairing between the incoming nucleotide and template base. Typically, Mg(2+) ions direct a 5' nucleoside triphosphate to form a phosphodiester bond with the 3' hydroxyl of the preceding nucleotide of the nascent RNA, with the elimination of pyrophosphate (PubMed:19609254, PubMed:33335104, PubMed:33674783, PubMed:34675218, PubMed:33558764, PubMed:20413673). Pol III plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses. Acts as a nuclear and cytosolic DNA sensor involved in innate immune response. Can sense non-self dsDNA that serves as template for transcription into dsRNA. The non-self RNA polymerase III transcripts, such as Epstein-Barr virus-encoded RNAs (EBERs) induce type I interferon and NF-kappa-B through the RIG-I pathway. {ECO:0000250, ECO:0000269|PubMed:19609254, ECO:0000269|PubMed:19631370, ECO:0000269|PubMed:20413673, ECO:0000269|PubMed:33335104, ECO:0000269|PubMed:33558764, ECO:0000269|PubMed:33558766, ECO:0000269|PubMed:33674783, ECO:0000269|PubMed:34675218}.

Molecular Weight:	127.8 kDa
UniProt:	Q9NW08

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
--------------------	---

Application Details

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