Datasheet for ABIN7555264

POLR3A Protein (AA 1-1390) (His tag)

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Overview

Quantity:	1 mg
Target:	POLR3A
Protein Characteristics:	AA 1-1390
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLR3A protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat POLR3A Protein expressed in mammalien cells.
Sequence:	MVKEQFRETD VAKKISHICF GMKSPEEMRQ QAHIQVVSKN LYSQDNQHAP LLYGVLDHRM GTSEKDRPCE TCGKNLADCL GHYGYIDLEL PCFHVGYFRA VIGILQMICK TCCHIMLSQE EKKQFLDYLK RPGLTYLQKR GLKKKISDKC RKKNICHHCG AFNGTVKKCG LLKIIHEKYK TNKKVVDPIV SNFLQSFETA IEHNKEVEPL LGRAQENLNP LVVLNLFKRI PAEDVPLLLM NPEAGKPSDL ILTRLLVPPL CIRPSVVSDL KSGTNEDDLT MKLTEIIFLN DVIKKHRISG AKTQMIMEDW DFLQLQCALY INSELSGIPL NMAPKKWTRG FVQRLKGKQG RFRGNLSGKR VDFSGRTVIS PDPNLRIDEV AVPVHVAKIL TFPEKVNKAN INFLRKLVQN GPEVHPGANF IQQRHTQMKR FLKYGNREKM AQELKYGDIV ERHLIDGDVV LFNRQPSLHK LSIMAHLARV KPHRTFRFNE CVCTPYNADF DGDEMNLHLP QTEEAKAEAL VLMGTKANLV TPRNGEPLIA AIQDFLTGAY LLTLKDTFFD RAKACQIIAS ILVGKDEKIK VRLPPPTILK PVTLWTGKQI FSVILRPSDD NPVRANLRTK GKQYCGKGED LCANDSYVTI QNSELMSGSM DKGTLGSGSK

Product Details

	NNIFYILLRD WGQNEAADAM SRLARLAPVY LSNRGFSIGI GDVTPGQGLL KAKYELLNAG YKKCDEYIEA LNTGKLQQQP GCTAEETLEA LILKELSVIR DHAGSACLRE LDKSNSPLTM ALCGSKGSFI NISQMIACVG QQAISGSRVP DGFENRSLPH FEKHSKLPAA KGFVANSFYS GLTPTEFFFH TMAGREGLVD TAVKTAETGY MQRRLVKSLE DLCSQYDLTV RSSTGDIIQF IYGGDGLDPA AMEGKDEPLE FKRVLDNIKA VFPCPSEPAL SKNELILTTE SIMKKSEFLC CQDSFLQEIK KFIKGVSEKI KKTRDKYGIN DNGTTEPRVL YQLDRITPTQ VEKFLETCRD KYMRAQMEPG SAVGALCAQS IGEPGTQMTL KTFHFAGVAS MNITLGVPRI KEIINASKAI STPIITAQLD KDDDADYARL VKGRIEKTLL GEISEYIEEV FLPDDCFILV KLSLERIRLL RLEVNAETVR YSICTSKLRV KPGDVAVHGE AVVCVTPREN SKSSMYYVLQ FLKEDLPKVV VQGIPEVSRA VIHIDEQSGK EKYKLLVEGD NLRAVMATHG VKGTRTTSNN TYEVEKTLGI EAARTTIINE IQYTMVNHGM SIDRRHVMLL SDLMTYKGEV LGITRFGLAK MKESVLMLAS FEKTADHLFD AAYFGQKDSV CGVSECIIMG IPMNIGTGLF KLLHKADRDP NPPKRPLIFD TNEFHIPLVT **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 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:	POLR3A

Target Details

Alternative Name:	POLR3A (POLR3A Products)
Background:	DNA-directed RNA polymerase III subunit RPC1 (RNA polymerase III subunit C1) (EC 2.7.7.6) (DNA-directed RNA polymerase III largest subunit) (DNA-directed RNA polymerase III subunit A) (RNA polymerase III 155 kDa subunit) (RPC155) (RNA polymerase III subunit C160),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:9331371, PubMed:20413673, PubMed:33558766, PubMed:35637192, PubMed:19609254, PubMed:19631370, PubMed:33335104, PubMed:34675218, PubMed:33558764). 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 second largest subunit POLR3B/RPC2. Appends one nucleotide at a time to the 3' end of the nascent RNA, with POLR3A/RPC1 contributing a Mg(2+)-coordinating DxDGD 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:9331371, 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, ECO:0000269|PubMed:35637192,

Target Details

	ECO:0000269|PubMed:9331371}.
Molecular Weight:	155.6 kDa
UniProt:	O14802

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

