Datasheet for ABIN3095097

POLR2B Protein (AA 1-1174) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	POLR2B
Protein Characteristics:	AA 1-1174
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLR2B protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MYDADEDMQY DEDDDEITPD LWQEACWIVI SSYFDEKGLV RQQLDSFDEF IQMSVQRIVE DAPPIDLQAE AQHASGEVEE PPRYLLKFEQ IYLSKPTHWE RDGAPSPMMP NEARLRNLTY SAPLYVDITK TVIKEGEEQL QTQHQKTFIG KIPIMLRSTY CLLNGLTDRD LCELNECPLD PGGYFIINGS EKVLIAQEKM ATNTVYVFAK KDSKYAYTGE CRSCLENSSR PTSTIWVSML ARGGQGAKKS AIGQRIVATL PYIKQEVPII IVFRALGFVS DRDILEHIIY DFEDPEMMEM VKPSLDEAFV IQEQNVALNF IGSRGAKPGV TKEKRIKYAK EVLQKEMLPH VGVSDFCETK KAYFLGYMVH RLLLAALGRR ELDDRDHYGN KRLDLAGPLL AFLFRGMFKN LLKEVRIYAQ KFIDRGKDFN LELAIKTRII SDGLKYSLAT GNWGDQKKAH QARAGVSQVL NRLTFASTLS HLRRLNSPIG RDGKLAKPRQ LHNTLWGMVC PAETPEGHAV GLVKNLALMA YISVGSQPSP ILEFLEEWSM ENLEEISPAA IADATKIFVN GCWVGIHKDP EQLMNTLRKL RRQMDIIVSE VSMIRDIRER EIRIYTDAGR ICRPLLIVEK QKLLLKKRHI DQLKEREYNN YSWQDLVASG

VVEYIDTLEE ETVMLAMTPD DLQEKEVAYC STYTHCEIHP SMILGVCASI IPFPDHNQSP RNTYQSAMGK QAMGVYITNF HVRMDTLAHV LYYPQKPLVT TRSMEYLRFR ELPAGINSIV AIASYTGYNQ EDSVIMNRSA VDRGFFRSVF YRSYKEQESK KGFDQEEVFE KPTRETCQGM RHAIYDKLDD DGLIAPGVRV SGDDVIIGKT VTLPENEDEL ESTNRRYTKR DCSTFLRTSE TGIVDQVMVT LNQEGYKFCK IRVRSVRIPQ IGDKFASRHG QKGTCGIQYR QEDMPFTCEG ITPDIIINPH AIPSRMTIGH LIECLQGKVS ANKGEIGDAT PFNDAVNVQK ISNLLSDYGY HLRGNEVLYN GFTGRKITSQ IFIGPTYYQR LKHMVDDKIH SRARGPIQIL NRQPMEGRSR DGGLRFGEME RDCQIAHGAA QFLRERLFEA SDPYQVHVCN LCGIMAIANT RTHTYECRGC RNKTQISLVR MPYACKLLFQ ELMSMSIAPR MMSV

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Product Details

	Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	POLR2B
Alternative Name:	POLR2B (POLR2B Products)
Background:	DNA-directed RNA polymerase II subunit RPB2 (EC 2.7.7.6) (3'-5' exoribonuclease) (EC 3.1.13.-) (DNA-directed RNA polymerase II 140 kDa polypeptide) (DNA-directed RNA polymerase II subunit B) (RNA polymerase II subunit 2) (RNA polymerase II subunit B2) (RNA-directed RNA polymerase II subunit RPB2) (EC 2.7.7.48),FUNCTION: Catalytic core component of RNA polymerase II (Pol II), a DNA-dependent RNA polymerase which synthesizes mRNA precursors and many functional non-coding RNAs using the four ribonucleoside triphosphates as substrates (PubMed:9852112, PubMed:27193682, PubMed:30190596) (By similarity). Pol II-mediated transcription cycle proceeds through transcription initiation, transcription elongation and transcription termination stages. During transcription initiation, Pol II pre-initiation complex (PIC) is recruited to DNA promoters, with focused-type promoters containing either the initiator (Inr) element, or the TATA-box found in cell-type specific genes and dispersed-type promoters that often contain hypomethylated CpG islands usually found in housekeeping genes. 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:9852112, PubMed:27193682, PubMed:30190596). Forms Pol II active center together with the largest subunit POLR2A/RPB1. Appends one nucleotide at a time to the 3' end of the nascent RNA, with POLR2A/RPB1 most likely contributing a Mg(2+)-coordinating DxDGD motif, and POLR2A/RPB1 most likely contributing a Mg(2+)-coordinating DxDGD motif, and POLR2B/RPB2 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

Target Details

	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. The reversible pyrophosphorolysis can occur at high pyrophosphate concentrations (PubMed:9852112, PubMed:30190596) (By similarity). Can proofread the nascent RNA transcript by means of a 3' -> 5' exonuclease activity. If a ribonucleotide is mis-incorporated, backtracks along the template DNA and cleaves the phosphodiester bond releasing the mis-incorporated 5'-ribonucleotide (PubMed:8381534) (By similarity). {ECO:0000250|UniProtKB:A5PJW8, ECO:0000269|PubMed:27193682, ECO:0000269|PubMed:30190596, ECO:0000269|PubMed:8381534, ECO:0000269|PubMed:9852112}., FUNCTION: RNA-dependent RNA polymerase that catalyzes the extension of a non-coding RNA (ncRNA) at the 3'-end using the four ribonucleoside triphosphates as substrates. An internal ncRNA sequence near the 3'-end serves as a template in a single-round Pol II-mediated RNA polymerization reaction. May decrease the stability of ncRNAs that repress Pol II-mediated gene transcription. {ECO:0000269|PubMed:23395899}.
Molecular Weight:	133.9 kDa
UniProt:	P30876
Pathways:	Regulatory RNA Pathways, DNA Damage Repair

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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months