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RPC5 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1956c

Product Information

Application	E
Primary Accession	Q9NVU0
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB9822
Calculated MW	79898
Antigen Region	241-271

Additional Information

Gene ID	55718
Other Names	DNA-directed RNA polymerase III subunit RPC5, RNA polymerase III subunit C5, DNA-directed RNA polymerase III 80 kDa polypeptide, POLR3E, KIAA1452
Target/Specificity	This RPC5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 241~271 amino acids from the central region of human RPC5.
Dilution	E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RPC5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	POLR3E (HGNC:30347)
Synonyms	KIAA1452
Function	DNA-dependent RNA polymerase catalyzes the transcription of DNA into

RNA using the four ribonucleoside triphosphates as substrates (PubMed:12391170, PubMed:20413673, PubMed:35637192). Specific peripheric component of RNA polymerase III (Pol III) which synthesizes small non-coding RNAs including 5S rRNA, snRNAs, tRNAs and miRNAs from at least 500 distinct genomic loci. Assembles with POLR3D/RPC4 forming a subcomplex that binds the Pol III core. Enables recruitment of Pol III at transcription initiation site and drives transcription initiation from both type 2 and type 3 DNA promoters. Required for efficient transcription termination and reinitiation (By similarity) (PubMed:12391170, PubMed:20413673, PubMed:35637192). 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 (PubMed:19609254, PubMed:19631370).

Cellular Location Nucleus.

Background

RNA polymerase III synthesizes RNA components of the protein synthesis, pre-mRNA splicing, and tRNA processing apparatuses. The holoenzyme consists of about 15 different subunits. The RPC5 subunit is essential for efficient transcription from both the type 2 VAI and type 3 U6 RNA polymerase III promoters.

References

Hu, P., et al., Mol. Cell. Biol. 22(22):8044-8055 (2002).
Jang, K.L., et al., J. Acquir. Immune Defic. Syndr. 5(11):1142-1147 (1992).

Citations

- FACT facilitates chromatin transcription by RNA polymerases I and III.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.