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RPC8 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4936a

Product Information

Application	WB, FC, E
Primary Accession	Q9Y535
Other Accession	Q9D2C6
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24730
Calculated MW	22918
Antigen Region	5-33

Additional Information

Gene ID	171568
Other Names	DNA-directed RNA polymerase III subunit RPC8, RNA polymerase III subunit C8, DNA-directed RNA polymerase III subunit H, RNA polymerase III subunit 229 kDa subunit, RPC229, POLR3H, KIAA1665, RPC8
Target/Specificity	This RPC8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 5-33 amino acids from the N-terminal region of human RPC8.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	RPC8 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	POLR3H (HGNC:30349)
Synonyms	KIAA1665, RPC8

Function	DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates (PubMed:20413673, PubMed:33558764, PubMed:34675218). 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. With CRCP/RPC9 forms a mobile stalk that protrudes from Pol III core and functions primarily in transcription initiation (By similarity) (PubMed:33558764, PubMed:34675218). Pol III plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses. Acts as 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.

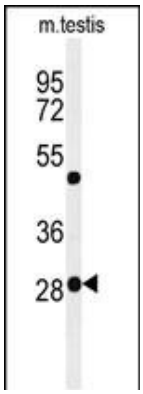
Background

RPC8 is DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Specific peripheric component of RNA polymerase III which synthesizes small RNAs, such as 5S rRNA and tRNAs. It is plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses. It is acting as nuclear and cytosolic DNA sensor involved in innate immune response. It 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.

References

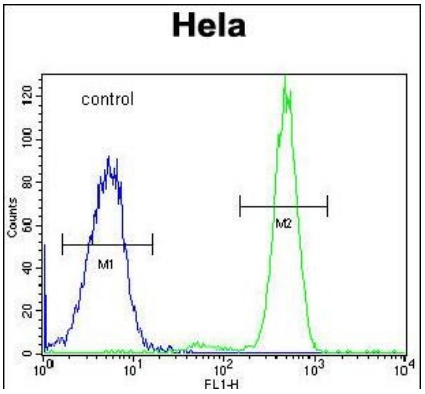
Greco-Stewart, V.S., et al. Virology 386(1):12-15(2009)
Collins, J.E., et al. Genome Biol. 5 (10), R84 (2004)
Hu, P., et al. Mol. Cell. Biol. 22(22):8044-8055(2002)

Images



Western blot analysis of RPC8 Antibody (N-term) (Cat. #AP4936a) in mouse testis tissue lysates (35ug/lane). RPC8 (arrow) was detected using the purified Pab.

RPC8 Antibody (N-term) (Cat. #AP4936a) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



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