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POLR3F Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51764

Product Information

Application	WB
Primary Accession	Q9H1D9
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35684

Additional Information

Gene ID	10621
Other Names	DNA-directed RNA polymerase III subunit RPC6, RNA polymerase III subunit C6, DNA-directed RNA polymerase III subunit F, RNA polymerase III 39 kDa subunit, RPC39, POLR3F
Target/Specificity	KLH conjugated synthetic peptide derived from human POLR3F
Dilution	WB~~ 1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	POLR3F (HGNC:15763)
Function	DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates (PubMed:20413673, PubMed:21358628, 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. Part of POLR3C/RPC3- POLR3F/RPC6-POLR3G/RPC7 heterotrimer that coordinates the dynamics of Pol III stalk and clamp modules during the transition from apo to elongation state (PubMed:20413673, PubMed:33558764, PubMed:33558766). Pol III plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses, including varicella zoster virus. Acts as a nuclear and cytosolic DNA sensor detecting AT-rich DNA, 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, PubMed:30211253). Preferentially binds double-stranded DNA (dsDNA) (PubMed:21358628).

Cellular Location Nucleus.

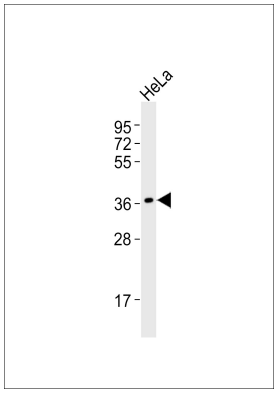
Background

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. May direct RNA Pol III binding to the TFIIIB-DNA complex. 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.

References

Wang Z.,et al.Genes Dev. 11:1315-1326(1997).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 414:865-871(2001).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Hsieh Y.-J.,et al.Mol. Cell. Biol. 19:7697-7704(1999).

Images



Anti-POLR3F Antibody at 1:1000 dilution + HeLa whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.