

# POLR3D Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP13498c

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P05423</a>
<b>Other Accession</b>	<a href="#">Q91WD1</a> , <a href="#">Q5E9Z7</a> , <a href="#">NP_001713.2</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Bovine, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB33419
<b>Calculated MW</b>	44396
<b>Antigen Region</b>	127-156

## Additional Information

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<b>Gene ID</b>	661
<b>Other Names</b>	DNA-directed RNA polymerase III subunit RPC4, RNA polymerase III subunit C4, DNA-directed RNA polymerase III subunit D, Protein BN51, RNA polymerase III 47 kDa subunit, RPC53 homolog, POLR3D, BN51, BN51T
<b>Target/Specificity</b>	This POLR3D antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 127-156 amino acids from the Central region of human POLR3D.
<b>Dilution</b>	WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	POLR3D Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	POLR3D ( <a href="#">HGNC:1080</a> )
<b>Synonyms</b>	BN51, BN51T

## Function

DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates (PubMed:[12391170](#), PubMed:[20413673](#), PubMed:[33558764](#), PubMed:[34675218](#), 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 POLR3E/RPC5 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](#)). 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.

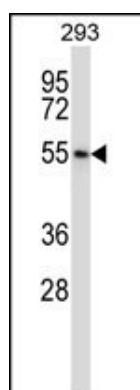
## Background

This gene complements a temperature-sensitive mutant isolated from the BHK-21 Syrian hamster cell line. It leads to a block in progression through the G1 phase of the cell cycle at nonpermissive temperatures.

## References

Chiu, Y.H., et al. Cell 138(3):576-591(2009)  
Lamesch, P., et al. Genomics 89(3):307-315(2007)  
Olsen, J.V., et al. Cell 127(3):635-648(2006)  
Olsen, J.V., et al. Cell 127(3):635-648(2006)  
Hu, P., et al. Mol. Cell. Biol. 22(22):8044-8055(2002)

## Images



POLR3D Antibody (Center) (Cat. #AP13498c) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the POLR3D antibody detected the POLR3D protein (arrow).

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