

POLR3C Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17225c

Specification

POLR3C Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O9BUI4
Other Accession	NP_006459.3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	60612
Antigen Region	202-230

POLR3C Antibody (Center) - Additional Information

Gene ID 10623

Other Names

DNA-directed RNA polymerase III subunit RPC3, RNA polymerase III subunit C3, DNA-directed RNA polymerase III subunit C, RNA polymerase III 62 kDa subunit, RPC62, POLR3C

Target/Specificity

This POLR3C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 202-230 amino acids from the Central region of human POLR3C.

Dilution

WB~~1:1000

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

POLR3C Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

POLR3C Antibody (Center) - Protein Information

Name POLR3C ([HGNC:30076](#))

Function DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates (PubMed:[20413673](#), PubMed:[33558764](#), PubMed:[33558766](#), PubMed:[34675218](#), PubMed:[35637192](#)). Specific peripheral 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 (PubMed:[20413673](#), PubMed:[33558764](#), PubMed:[33558766](#), PubMed:[35637192](#)). Part of POLR3C/RPC3-POLR3F/RPC6-POLR3G/RPC7 heterotrimer, coordinates the dynamics of Pol III stalk and clamp modules during the transition from apo to elongation state (PubMed:[33558764](#), PubMed:[33558766](#)). Pol III 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](#)). Preferentially binds single-stranded DNA (ssDNA) in a sequence-independent manner (PubMed:[21358628](#)).

Cellular Location

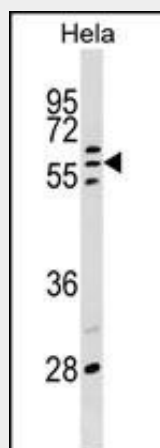
Nucleus.

POLR3C Antibody (Center) - Protocols

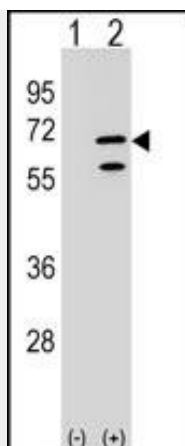
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

POLR3C Antibody (Center) - Images



POLR3C Antibody (Center) (Cat. #AP17225c) western blot analysis in HeLa cell line lysates (35ug/lane). This demonstrates the POLR3C antibody detected the POLR3C protein (arrow).



Western blot analysis of POLR3C (arrow) using rabbit polyclonal POLR3C Antibody (Center) (Cat. #AP17225c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the POLR3C gene.

POLR3C Antibody (Center) - Background

DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Specific core component of RNA polymerase III which synthesizes small RNAs, such as 5S rRNA and tRNAs. May direct with other members of the subcomplex RNA Pol III binding to the TFIIB-DNA complex via the interactions between TFIIB and POLR3F. May be involved either in the recruitment and stabilization of the subcomplex within RNA polymerase III, or in stimulating catalytic functions of other subunits during initiation. 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.

POLR3C Antibody (Center) - References

- Ablasser, A., et al. Nat. Immunol. 10(10):1065-1072(2009)
- Hu, P., et al. Mol. Cell. Biol. 22(22):8044-8055(2002)
- Kuwana, M., et al. Arthritis Rheum. 46(10):2742-2747(2002)
- Hsieh, Y.J., et al. Mol. Cell. Biol. 19(11):7697-7704(1999)
- Hsieh, Y.J., et al. Mol. Cell. Biol. 19(7):4944-4952(1999)