

POLR3C Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP17225c**Specification**

POLR3C Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q9BUI4](#)**POLR3C Antibody (Center) Blocking Peptide - 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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

POLR3C Antibody (Center) Blocking Peptide - Protein InformationName 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:35637192, PubMed:34675218, PubMed:33558764, PubMed:33558766). 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 (PubMed:20413673, PubMed:35637192, PubMed:33558764, PubMed:33558766). 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

POLR3C Antibody (Center) Blocking Peptide - Images

POLR3C Antibody (Center) Blocking Peptide - 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 TFIIIB-DNA complex via the interactions between TFIIIB 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) Blocking Peptide - 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)