

**RPC5 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP1956c****Specification**

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**RPC5 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [Q9NVU0](#)**RPC5 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 55718**Other Names**

DNA-directed RNA polymerase III subunit RPC5, RNA polymerase III subunit C5, DNA-directed RNA polymerase III 80 kDa polypeptide, POLR3E, KIAA1452

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP1956c](/product/products/AP1956c) was selected from the 3'-term region of human RPC5 (3'-term). A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**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.

**RPC5 Antibody (Center) Blocking Peptide - Protein Information****Name** POLR3E ([HGNC:30347](#))**Synonyms** KIAA1452**Function**

DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates (PubMed: [12391170](http://www.uniprot.org/citations/12391170), PubMed: [20413673](http://www.uniprot.org/citations/20413673), PubMed: [35637192](http://www.uniprot.org/citations/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 POLR3D/RPC4 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:<a href="http://www.uniprot.org/citations/12391170" target="\_blank">12391170</a>, PubMed:<a href="http://www.uniprot.org/citations/20413673" target="\_blank">20413673</a>, PubMed:<a href="http://www.uniprot.org/citations/35637192" target="\_blank">35637192</a>). 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:<a href="http://www.uniprot.org/citations/19609254" target="\_blank">19609254</a>, PubMed:<a href="http://www.uniprot.org/citations/19631370" target="\_blank">19631370</a>).

#### **Cellular Location**

Nucleus.

#### **RPC5 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

#### **RPC5 Antibody (Center) Blocking Peptide - Images**

#### **RPC5 Antibody (Center) Blocking Peptide - Background**

RNA polymerase III synthesizes RNA components of the protein synthesis, pre-mRNA splicing, and tRNA processing apparatuses. The holoenzyme consists of about 15 different subunits. The RPC5 subunit is essential for efficient transcription from both the type 2 VAI and type 3 U6 RNA polymerase III promoters.

#### **RPC5 Antibody (Center) Blocking Peptide - References**

Hu, P., et al., Mol. Cell. Biol. 22(22):8044-8055 (2002). Jang, K.L., et al., J. Acquir. Immune Defic. Syndr. 5(11):1142-1147 (1992).