

### **RPC5 Antibody (Center)**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP1956c

# **Specification**

### **RPC5 Antibody (Center) - Product Information**

# **RPC5 Antibody (Center) - 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**

This RPC5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 241~271 amino acids from the central region of human RPC5.

#### **Dilution**

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

# 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**

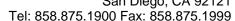
RPC5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

### **RPC5 Antibody (Center) - 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, PubMed: 20413673, 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 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: 12391170, PubMed: 20413673. PubMed:35637192). 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).

**Cellular Location** Nucleus.

### **RPC5 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 Cytomety
- Cell Culture

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

# **RPC5 Antibody (Center) - 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) - 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). **RPC5 Antibody (Center) - Citations** 

• FACT facilitates chromatin transcription by RNA polymerases I and III.