

Anti-POLR3E Antibody
Rabbit polyclonal antibody to POLR3E
Catalog # AP60760

Specification

Anti-POLR3E Antibody - Product Information

Application	WB, IF
Primary Accession	O9NVU0
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79898

Anti-POLR3E Antibody - Additional Information

Gene ID 55718

Other Names

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

Target/Specificity

Recognizes endogenous levels of POLR3E protein.

Dilution

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)
IF~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-POLR3E Antibody - 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: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

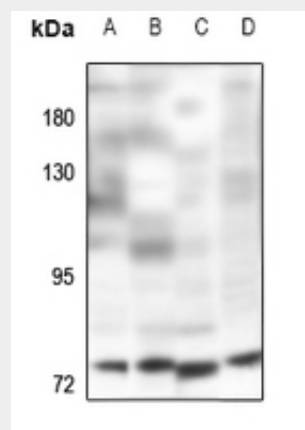
Nucleus.

Anti-POLR3E Antibody - Protocols

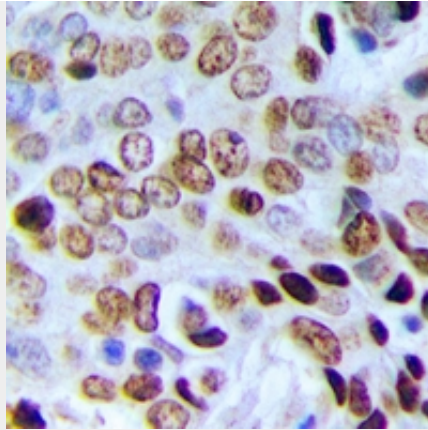
Provided below are standard protocols that you may find useful for product applications.

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

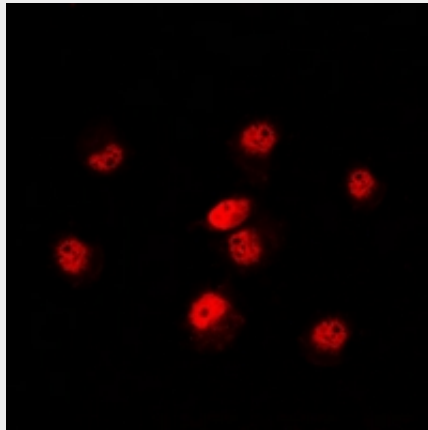
Anti-POLR3E Antibody - Images



Western blot analysis of POLR3E expression in K562 (A), HEK293T (B), AML12 (C), H9C2 (D) whole cell lysates.



Immunohistochemical analysis of POLR3E staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of POLR3E staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Anti-POLR3E Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human POLR3E. The exact sequence is proprietary.