





HIGH PERFORMANCE ANTIBODIES ... AND MORE

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# POLR3F Antibody Cat. No.: 4727





Immunohistochemistry of POLR3F in human brain tissue with POLR3F antibody at 2.5  $\mu$ g/mL.



Immunofluorescence of POLR3F in human brain tissue with POLR3F antibody at 20  $\mu\text{g/mL}.$ 

### ΨSpecifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Human, Mouse, Rat
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Bovine: (100%)
IMMUNOGEN:	POLR3F antibody was raised against a 21 amino acid synthetic peptide from near the amino terminus of human POLR3F. The immunogen is located within the first 50 amino acids of POLR3F.
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB

APPLICATIONS:	<ul> <li>POLR3F antibody can be used for detection of POLR3F by Western blot at 0.5 - 1 μg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μg/mL. For immunofluorescence start at 20 μg/mL.</li> <li>Antibody validated: Western Blot in human samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested.</li> </ul>
POSITIVE CONTROL:	1) Cat. No. 1303 - Human Brain Tissue Lysate
	2) Cat. No. 10-301 - Human Brain Tissue Slide

## $\Psi$ Properties

PURIFICATION:	POLR3F Antibody is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal
ISOTYPE:	lgG
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	POLR3F Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	POLR3F antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

#### $\Psi$ Additional Info

OFFICIAL SYMBOL:	POLR3F
ALTERNATE NAMES:	POLR3F Antibody: RPC6, RPC39, DNA-directed RNA polymerase III subunit RPC6, DNA- directed RNA polymerase III subunit F, RNA polymerase III subunit C6
ACCESSION NO.:	CAC11110
PROTEIN GI NO.:	10636565
GENE ID:	10621
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

 $\Psi$ Background and References

BACKGROUND:	POLR3F Antibody: The human POLR3F is a component of RNA III polymerase. RNA polymerase III transcribes many essential, small, noncoding RNAs, including the 5S rRNAs and tRNAs. While most pol III-transcribed genes are found scattered throughout the linear chromosome maps or in multiple linear clusters, there is increasing evidence that many of these genes prefer to be spatially clustered, often at or near the nucleolus. This association could create an environment that fosters the coregulation of transcription by pol III with transcription of the large ribosomal RNA repeats by RNA polymerase I (pol I) within the nucleolus. Given the high number of pol III-transcribed genes in all eukaryotic genomes, the spatial organization of these genes is likely to affect a large portion of the other genes in a genome. POLR3F has also been recently identified as an HIV dependency factor (HDF), suggesting that POLR3F may be an important drug target in HIV treatment. At least two isoforms of POLR3F are known to exist.
REFERENCES:	1) Hu P, Wu S, Sun Y, et al. Characterization of human RNA polymerase III identifies orthologues for Saccharomyces cerevisiae RNA polymerase III subunits. Mol. Cell Biol.2002; 22:8044-55.
	2) Haeusler RA and Engelke DR. Spatial organization of transcription by RNA polymerase III. Nucleic Acids Res.2006; 34:4826-36. Epub 2006 Sep 13.
	3) Brass AL, Dykxhoorn DM, Benita Y, et al. Identification of host proteins required for HIV infection through a functional genomic screen. Science2008; 319:921-6.

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