

For Research Use Only

# POLG Recombinant antibody

Catalog Number:83670-1-RR



## Basic Information

<b>Catalog Number:</b> 83670-1-RR	<b>GenBank Accession Number:</b> BC042571	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 5428	<b>CloneNo.:</b> 240441D2
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P54098	<b>Recommended Dilutions:</b> WB 1:5000-1:50000
<b>Isotype:</b> IgG	<b>Full Name:</b> polymerase (DNA directed), gamma	
<b>Immunogen Catalog Number:</b> AG5256	<b>Calculated MW:</b> 140 kDa	
	<b>Observed MW:</b> 140 kDa	

## Applications

<b>Tested Applications:</b> WB, ELISA	<b>Positive Controls:</b> WB : HeLa cells, rat brain tissue, rat testis tissue, HepG2 cells, HEK-293T cells, MCF-7 cells
<b>Species Specificity:</b> human, rat	

## Background Information

POLG (DNA polymerase gamma) is composed of a C-terminal polymerase ('pol') domain and an amino-terminal exonuclease ('exo') domain. The exo domain increases the fidelity of mitochondrial DNA replication by conferring a proofreading activity to the enzyme (PMID: 12210792). Catalytic subunit of POLG solely responsible for replication of mitochondrial DNA (mtDNA). Replicates both heavy and light strands of the circular mtDNA genome using a single-stranded DNA template, RNA primers and the four deoxyribonucleoside triphosphates as substrates (PMID:11477093; 11897778; 15917273; 19837034; 9558343).

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

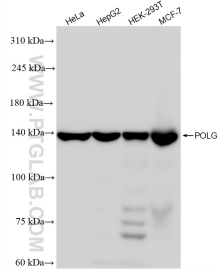
For technical support and original validation data for this product please contact:

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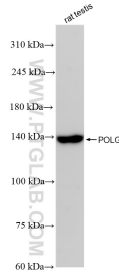
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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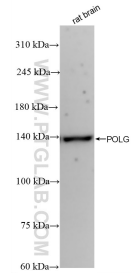
## Selected Validation Data



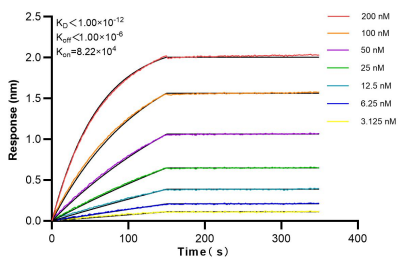
Various lysates were subjected to SDS PAGE followed by western blot with 83670-1-RR (POLG antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



rat testis tissue were subjected to SDS PAGE followed by western blot with 83670-1-RR (POLG antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



rat brain tissue were subjected to SDS PAGE followed by western blot with 83670-1-RR (POLG antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Biolayer interferometry (BLI) kinetic assays of 83670-1-RR against Human POLG were performed. The affinity constant is below 1 pM.