

For Research Use Only

# DNA ligase III/LIG3 Recombinant antibody

Catalog Number: 85409-4-RR



## Basic Information

<b>Catalog Number:</b> 85409-4-RR	<b>GenBank Accession Number:</b> BC068005	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 3980	<b>CloneNo.:</b> 242870C6
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P49916	<b>Recommended Dilutions:</b> WB 1:5000-1:50000
<b>Isotype:</b> IgG	<b>Full Name:</b> ligase III, DNA, ATP-dependent	
<b>Immunogen Catalog Number:</b> AG24917	<b>Calculated MW:</b> 100-110 kDa	
	<b>Observed MW:</b> 100 kDa	

## Applications

<b>Tested Applications:</b> WB, ELISA	<b>Positive Controls:</b> WB : LNCaP cells, MOLT-4 cells, HEK-293 cells, HeLa cells, PC-3 cells
<b>Species Specificity:</b> human	

## Background Information

DNA ligase III (DNA ligase 3) is an enzyme that in humans is encoded by the LIG3 gene. The human LIG3 gene encodes ATP-dependent DNA ligases that seal interruptions in the phosphodiester backbone of duplex DNA. There are three families of ATP-dependent DNA ligases in eukaryotes. These enzymes utilize the same three step reaction mechanism; 1 formation of a covalent enzyme-adenylate intermediate; 2 transfer of the adenylate group to the 5' phosphate terminus of a DNA nick; 3 phosphodiester bond formation. Unlike LIG1 and LIG4 family members that are found in almost all eukaryotes, LIG3 family members are less widely distributed. The LIG3 gene encodes several distinct DNA ligase species by alternative translation initiation and alternative splicing mechanisms.

## Storage

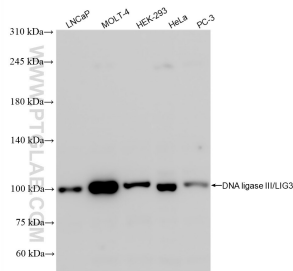
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

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

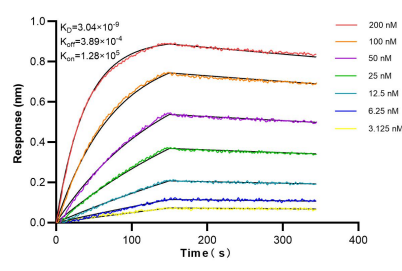
For technical support and original validation data for this product please contact:  
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## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 85409-4-RR (LIG3 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Biolayer interferometry (BLI) kinetic assays of 85409-4-RR against Human DNA ligase III/LIG3 were performed. The affinity constant is 3.04 nM.