

For Research Use Only

# DNA ligase III/LIG3 Monoclonal antibody, PBS Only (Capture)

Catalog Number: 68810-1-PBS



## Basic Information

Catalog Number:	68810-1-PBS	GenBank Accession Number:	BC068005	Purification Method:	Protein G purification
Concentration:	1 mg/ml	GeneID (NCBI):	3980	CloneNo.:	1B10B3
Source:	Mouse	UNIPROT ID:	P49916		
Isotype:	IgG1	Full Name:	ligase III, DNA, ATP-dependent		
Immunogen Catalog Number:	AG31484	Calculated MW:	100-110 kDa		
		Observed MW:	100 kDa		

## Applications

**Tested Applications:**  
WB, Cytometric bead array, Indirect ELISA

**Species Specificity:**  
human, mouse, rat

## 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 -80°C.  
**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**

**Storage Buffer:**  
PBS Only

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

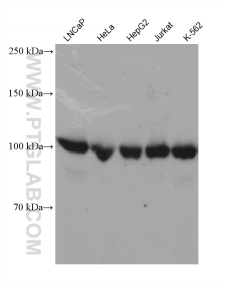
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

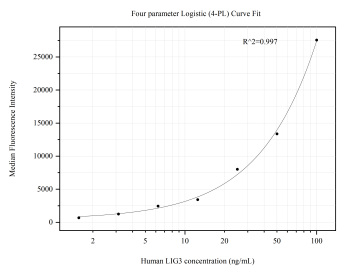
W: [ptgcn.com](http://ptgcn.com)

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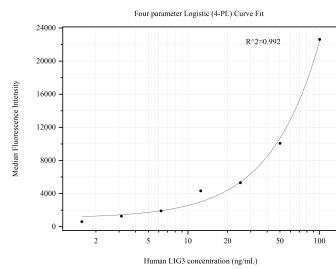
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 68810-1-Ig (DNA ligase III/LIG3 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 68810-1-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP50683-2, DNA ligase III/LIG3 Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 68810-1-PBS. Detection antibody: 68810-3-PBS. Standard:Ag31484. Range: 1.563-100 ng/mL.



Cytometric bead array standard curve of MP50683-3, DNA ligase III/LIG3 Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 68810-1-PBS. Detection antibody: 68810-2-PBS. Standard:Ag31484. Range: 1.563-100 ng/mL.