

For Research Use Only

DNA ligase III/LIG3 Polyclonal antibody

Catalog Number: 26583-1-AP

Featured Product

6 Publications



Basic Information

Catalog Number:

26583-1-AP

Size:

150ul, Concentration: 500 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG24998

GenBank Accession Number:

BC068005

GeneID (NCBI):

3980

UNIPROT ID:

P49916

Full Name:

Ligase III, DNA, ATP-dependent

Calculated MW:

100-110 kDa

Observed MW:

100 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:5000-1:50000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:250-1:1000

IF/ICC 1:400-1:1600

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IF

Species Specificity:

human, mouse

Cited Species:

human, pig

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HEK-293T cells, HeLa cells, PC-3 cells

IP : HEK-293T cells,

IHC : mouse testis tissue,

IF/ICC : HeLa cells,

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.

Notable Publications

Author	Pubmed ID	Journal	Application
Guoling Li	32534122	Int J Biochem Cell Biol	WB
Elena Bonora	33855352	Brain	IF
Gergely Rona	38458201	Mol Cell	WB

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

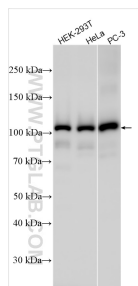
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

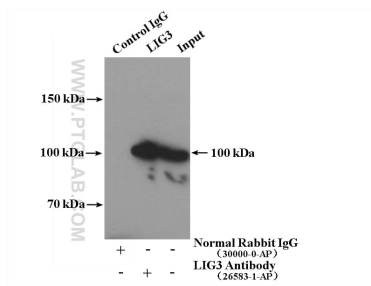
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

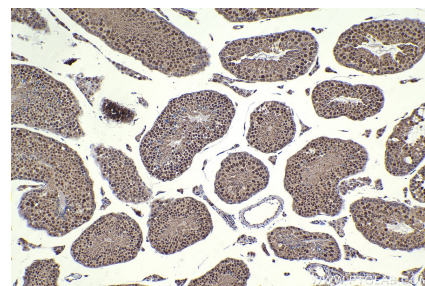
Selected Validation Data



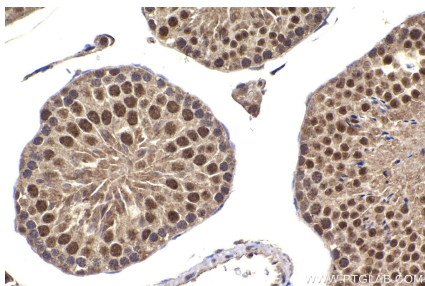
Various lysates were subjected to SDS PAGE followed by western blot with 26583-1-AP (DNA ligase III/LIG3 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



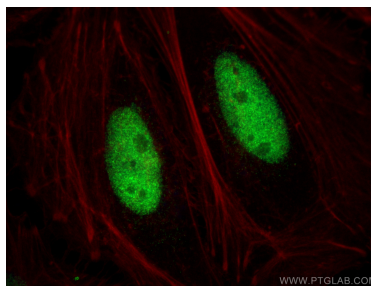
IP result of anti-DNA ligase III/LIG3 (IP:26583-1-AP, 4ug; Detection:26583-1-AP 1:300) with HEK-293T cells lysate 4000ug.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 26583-1-AP (DNA ligase III/LIG3 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 26583-1-AP (DNA ligase III/LIG3 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using DNA ligase III/LIG3 antibody (26583-1-AP) at dilution of 1:800 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002), CL594-Phalloidin (red).