

For Research Use Only

# LIG4 Monoclonal antibody

Catalog Number: 66705-1-Ig



## Basic Information

<b>Catalog Number:</b> 66705-1-Ig	<b>GenBank Accession Number:</b> BC037491	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul, Concentration: 1000 ug/ml by Nanodrop and 1000 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 3981	<b>CloneNo.:</b> 1H6C11
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P49917	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IF/ICC 1:50-1:500
<b>Isotype:</b> IgG2a	<b>Full Name:</b> ligase IV, DNA, ATP-dependent	
<b>Immunogen Catalog Number:</b> AG3385	<b>Calculated MW:</b> 911 aa, 104 kDa	
	<b>Observed MW:</b> 100-104 kDa	

## Applications

<b>Tested Applications:</b> WB, IF/ICC, ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> Human	<b>WB :</b> PC-3 cells, HeLa cells, HepG2 cells, Jurkat cells, Ramos cells, human testis tissue
	<b>IF/ICC :</b> HepG2 cells,

## Background Information

Two major pathways, homologous recombination (HR) and nonhomologous end joining (NHEJ), counteract one of the most toxic lesions, the DSB. The core protein complex mediating NHEJ in mammals includes DNA ligase IV (Lig4). Lig4 belongs to an ATP-dependent DNA ligase family, and joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction. The complex Lig4-XRCC4 is responsible for the NHEJ ligation step, and XRCC4 enhances the joining activity of Lig4.

## 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

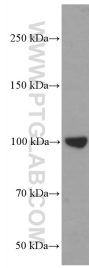
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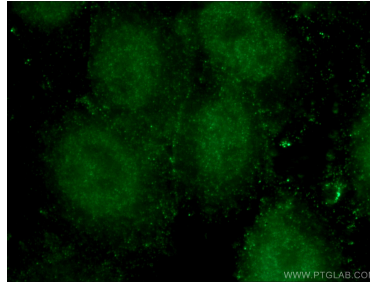
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## Selected Validation Data



PC-3 cells were subjected to SDS PAGE followed by western blot with 66705-1-Ig (LIG4 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 66705-1-Ig (LIG4 antibody) at dilution of 1:100 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).