

# Product Datasheet

## DNA Ligase IV Antibody - BSA Free NB110-57379

Unit Size: 100 ul

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NB110-57379****DNA Ligase IV Antibody - BSA Free**

<b>Product Information</b>	
<b>Unit Size</b>	100 ul
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Protein A purified
<b>Buffer</b>	PBS, 2% Sucrose
<b>Target Molecular Weight</b>	104 kDa

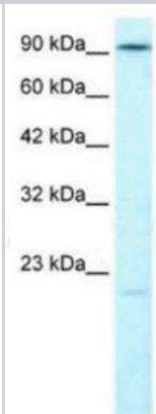
<b>Product Description</b>	
<b>Description</b>	The addition of 50% glycerol is optional for those storing this antibody at -20C and not aliquoting smaller units. However, please note that glycerol may interrupt some downstream antibody applications and should be added with caution.
<b>Host</b>	Rabbit
<b>Gene ID</b>	3981
<b>Gene Symbol</b>	LIG4
<b>Species</b>	Human, Mouse
<b>Reactivity Notes</b>	Use in Mouse reported in scientific literature (PMID:32846126).
<b>Immunogen</b>	The immunogen is a synthetic peptide directed towards the N terminal region of human DNA Ligase IV. Peptide Sequence DGERMQMHKDGVDYKYFSRNGYNYTDQFGASPTEGSLTPFIHNAFKADIQ. The peptide sequence for this immunogen was taken from within the described region.

<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated
<b>Recommended Dilutions</b>	Western Blot 1.0 ug/ml, Immunohistochemistry 1:10-1:500, Immunohistochemistry-Paraffin 4-8 ug/ml, Knockdown Validated
<b>Application Notes</b>	Use in Knockdown Validated reported in scientific literature (PMID:32846126)

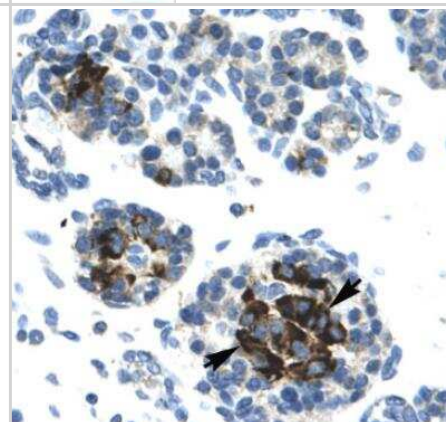


## Images

Western Blot: DNA Ligase IV Antibody [NB110-57379] - HepG2 cell lysate.



Immunohistochemistry: DNA Ligase IV Antibody [NB110-57379] - Immunohistochemical staining of human pancreatic tissue using NB110-57379 at a concentration of 5 ug/ml.



## Publications

de Krijger I, Jacobs JJL CHD2 and H3. 3 promote NHEJ at deprotected telomeres Book 2021-01-01 (WB, Mouse)

Francica P, Mutlu M, Blomen VA et al. Functional Radiogenetic Profiling Implicates ERCC6L2 in Non-homologous End Joining Cell Rep 2020-08-25 [PMID: 32846126] (WB, KD, Mouse)

Ching W, Dobner T, Koyuncu E. The human adenovirus type 5 E1B 55-kilodalton protein is phosphorylated by protein kinase CK2. J Virol 2012-03-01 [PMID: 22190719]

Ducu RI, Dayaram T, Marriott SJ. The HTLV-1 Tax oncoprotein represses Ku80 gene expression. Virology. 2011-07-01 [PMID: 21571351] (WB, Human)

## Procedures

### Western Blot protocol for DNA Ligase IV Antibody (NB110-57379)

Western Blot protocol specific for DNA Ligase IV Antibody (NB110-57379):

To prepare total cell lysates, spin down cells and re-suspension the pellet in PBS to make the final concentration around  $3 \times 10^6$  cells / ml. This is a convenient cell density for many cell lines, but adjustments may be necessary for cell types that differ substantially in size and protein content. Prepare cell extracts in appropriate non-reducing or reducing sample buffer. In some cases reducing agents may disrupt the conformation that is recognized by a monoclonal detection antibody. Mix the cell suspension with an equal volume of non-reducing 2X SDS gel sample buffer (6% SDS, 0.25 M Tris, pH 6.8, 10% glycerol, and bromophenyl blue) or reducing 2X SDS gel sample buffer [non-reducing buffer plus 20 mM dithithreitol (DTT)]. Sonicate the cells to fragment the DNA using 8-10 bursts of 2-3 seconds each.

1. Load cell extracts and separate proteins on a 12% SDS-PAGE gel.
2. Transfer the separated proteins onto an Immobilon P membrane (Millipore) and incubate the membrane for 1 hour at room temperature or overnight at 2-8 C in Blocking Solution (1 X PBS, pH 7.4 containing 5% dry milk).
3. Wash the membrane at room temperature for 30 minutes with 5 changes of Wash Buffer (1X PBS with 0.1% NP40,).
4. Incubate the membrane for 2 hours at room temperature or overnight at 2-8 C in Blotting Buffer (1 X PBS, pH 7.4 containing 5% dry milk) containing NB110-57379 ( 1.25ug/ml).
5. Wash the membrane at room temperature for 30 minutes with 5 changes of Wash Buffer.
6. Incubate the membrane at room temperature for 1 hour in Blotting Buffer containing an HRP conjugated anti-Rabbit IgG secondary antibody, diluted 1: 50,000 - 100,000.
7. Wash the membrane at room temperature for 30 minutes with 5 changes of Wash Buffer.
8. Detect with chemiluminescence reagents.



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### **Products Related to NB110-57379**

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NBL1-12521	DNA Ligase IV Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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