For Research Use Only

# NNT Monoclonal antibody

Catalog Number:68194-1-Ig

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## Basic Information

Catalog Number:
68194-1-Ig

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

Source:
Mouse

Isotype:
IgG2b

Immunogen Catalog Number:
AG4259

GenBank Accession Number:
BC032370

GeneID (NCBI):
23530

UNIPROT ID:
Q13423

Full Name:
nicotinamide nucleotide transhydrogenase

Calculated MW:
1085 aa, 114 kDa

Observed MW:
114 kDa

Purification Method:
Protein A purification

CloneNo.:
1F5H6

Recommended Dilutions:
WB 1:5000-1:50000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:500-1:2000
IF/ICC 1:400-1:1600

## Applications

Tested Applications:
WB, IHC, IF/ICC, IP, ELISA

Species Specificity:
Human, Mouse, Rat, Rabbit, 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 : pig heart tissue, LNCaP cells, HeLa cells, Jurkat cells, rabbit heart tissue, rat heart tissue, mouse heart tissue, rat liver tissue, mouse liver tissue

IP : HepG2 cells,

IHC : human liver tissue, mouse heart tissue

IF/ICC : HeLa cells,

## Background Information

NNT(nicotinamide nucleotide transhydrogenase) is a transmembrane protein and functions as a proton pumping transhydrogenase. The protein is present in both prokaryotes and eukaryotes and is located in the inner membrane of mitochondria. In prokaryotic cells, the enzyme is composed of α and β subunits of 54 and 48 kDa, respectively. In eukaryotic cells, the enzyme is usually composed of a single peptide of 114 kDa. Although NNT catalyzes the interconversion of NADH and NADPH, the forward reaction using the reducing power of NADH to regenerate NADPH would be favored under conditions of oxidative stress(PMID:16497723). It can exsit as a homodimer(PMID:21882037).

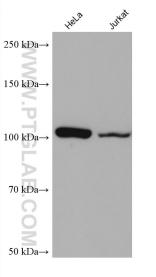
## Storage

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

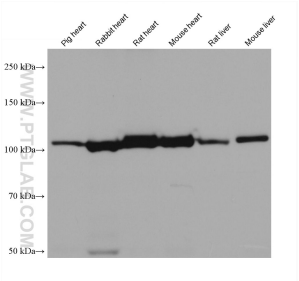
***** 20ul sizes contain 0.1% BSA**

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

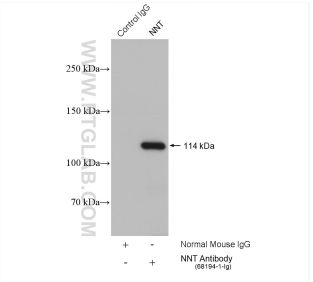
## Selected Validation Data



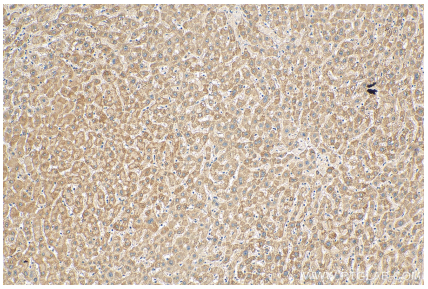

Various lysates were subjected to SDS PAGE followed by western blot with 68194-1-Ig (NNT antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



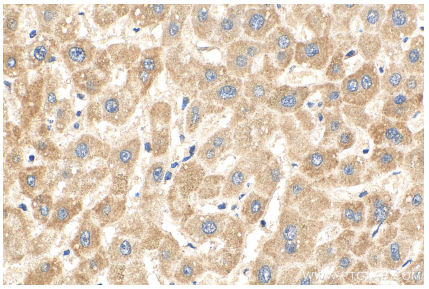

Various lysates (mouse heart tissue and mouse liver tissue were dissected from BALB/c mice) were subjected to SDS PAGE followed by western blot with 68194-1-Ig (NNT antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



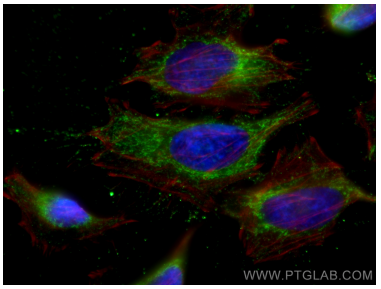

IP result of anti-NNT (IP:68194-1-Ig, 4ug; Detection:68194-1-Ig 1:5000) with HepG2 cells lysate 960 ug.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 68194-1-Ig (NNT antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 68194-1-Ig (NNT antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using NNT antibody (68194-1-Ig, Clone: 1F5H6 ) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L), CL594-Phalloidin (red).