

**NNT Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP58278****Specification**

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**NNT Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, E
Primary Accession	<a href="#">Q13423</a>
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	109 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NNT
Epitope Specificity	981-1086/1086
Isotype	IgG
<b>Purity</b>	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion inner membrane; Multi-pass membrane protein; Matrix side
SIMILARITY	In the N-terminal section; belongs to the AlaDH/PNT family. In the C-terminal section; belongs to the PNT beta subunit family.
SUBUNIT	Homodimer
DISEASE	Defects in NNT are the cause of glucocorticoid deficiency type 4 (GCCD4) [MIM:614736]. A rare, potentially lethal, autosomal recessive disorder characterized by resistance to ACTH action on the adrenal cortex, adrenal insufficiency and an inability of the adrenal cortex to produce cortisol. It usually presents in the neonatal period or in early childhood with episodes of hypoglycemia and other symptoms related to cortisol deficiency, including failure to thrive, recurrent illnesses or infections, convulsions, and shock. In a small number of patients hypoglycemia can be sufficiently severe and persistent that it leads to serious long-term neurological damage or death. The diagnosis is readily confirmed with a low plasma cortisol measurement in the presence of an elevated ACTH level, and normal aldosterone and plasma renin

**Important Note****measurements.**

**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

**Background Descriptions**

Nicotinamide nucleotide transhydrogenase (NNT) is an integral protein of the inner mitochondrial membrane. It couples hydride transfer between NAD(H) and NADP(+) to proton translocation across the inner mitochondrial membrane.

**NNT Polyclonal Antibody - Additional Information**

**Gene ID** 23530

**Other Names**

NAD(P) transhydrogenase, mitochondrial, 7.1.1.1, Nicotinamide nucleotide transhydrogenase, Pyridine nucleotide transhydrogenase, NNT

**Target/Specificity**

Widely expressed with expression most readily detectable in adrenal, heart, kidney, thyroid and adipose tissues.

**Dilution**

`<span class = "dilution_IHC-P">IHC-P ~ ~ N/A</span><br \><span class = "dilution_IHC-F">IHC-F ~ ~ N/A</span><br \><span class = "dilution_IF">IF ~ ~ 1:50 ~ 200</span><br \><span class = "dilution_E">E ~ ~ N/A</span>`

**Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

**Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**NNT Polyclonal Antibody - Protein Information**

**Name** NNT

**Function**

The transhydrogenation between NADH and NADP is coupled to respiration and ATP hydrolysis and functions as a proton pump across the membrane (By similarity). May play a role in reactive oxygen species (ROS) detoxification in the adrenal gland (PubMed:<a href="http://www.uniprot.org/citations/22634753" target="\_blank">22634753</a>).

**Cellular Location**

Mitochondrion inner membrane; Multi-pass membrane protein; Matrix side

**Tissue Location**

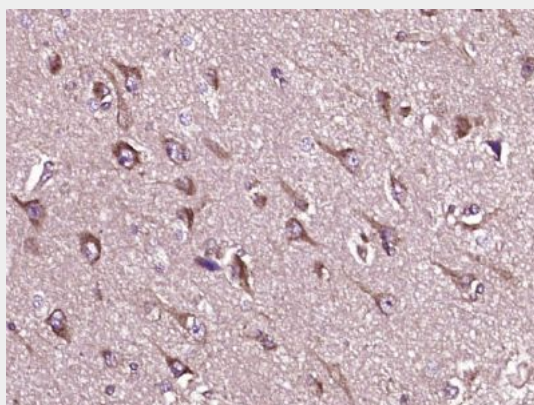
Widely expressed with expression most readily detectable in adrenal, heart, kidney, thyroid and adipose tissues

**NNT Polyclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **NNT Polyclonal Antibody - Images**



Paraformaldehyde-fixed, paraffin embedded (human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NNT) Polyclonal Antibody, Unconjugated (bs-5097R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.