

Rabbit NNT Polyclonal Antibody | anti-NNT antibody

Anti-NNT Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125578	Rabbit	Human, Mouse, Monkey, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

NNT; Polyclonal Antibody; Anti-NNT Antibody; NAD(P) transhydrogenase; mitochondrial; Nicotinamide nucleotide transhydrogenase; Pyridine nucleotide transhydrogenase; nicotinamide nucleotide transhydrogenase; anti-NNT antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Monkey, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for NNT detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Applicable Applications for anti-NNT antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E Coli-derived human NNT recombinant protein (Position: C44-A350).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of THP-1 cells using anti-NNT antibody (AAA125578). Overlay histogram showing THP-1 cells stained with AAA125578 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NNT Antibody (AAA125578, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight[®]488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of NNT using anti-NNT antibody (AAA125578). NNT was detected in immunocytochemical section of U20S cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 4µg/mL rabbit anti-NNT Antibody (AAA125578) overnight at 4 degree C. DyLight[®]488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of NNT using anti-NNT antibody (AAA125578). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat liver tissue lysates Lane 2: rat kidney tissue lysates Lane 3: rat heart tissue lysates Lane 4: mouse liver tissue lysates Lane 5: mouse kidney tissue lysates Lane 6: mouse heart tissue lysates Lane 7: human Hela whole cell lysates Lane 8: monkey liver tissue lysates Lane 9: monkey kidney tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NNT antigen affinity purified polyclonal antibody (Catalog # AAA125578) at 0.25 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for NNT at approximately 114KD. The expected band size for NNT is at 114KD.

ADDITIONAL INFORMATION

Related Product Information for anti-NNT antibody	This gene encodes an integral protein of the inner mitochondrial membrane. The enzyme couples hydride transfer between NAD(H) and NADP(+) to proton translocation across the inner mitochondrial membrane. Under most physiological conditions, the enzyme uses energy from the mitochondrial proton gradient to produce high concentrations of NADPH. The resulting NADPH is used for biosynthesis and in free radical detoxification.
References	- Hasselmann, C., Deladoey, J., Vuissoz, J. -M., Patry, L., Alirezaie, N., Schwartzentruber, J., FORGE Canada Consortium, Deal, C. L., Van Vliet, G., Majewski, J., Samuels, M. E. Expanding the phenotypic spectrum of nicotinamide nucleotide transhydrogenase (NNT) mutations and using whole exome sequencing to discover potential disease modifiers. J. Genomes Exomes 2: 19-30, 2013. - Meimaridou, E., Kowalczyk, J., Guasti, L., Hughes, C. R., Wagner, F., Frommolt, P., Nurnberg, P., Mann, N. P., Banerjee, R., Saka, H. N., Chapple, J. P., King, P. J., Clark, A. J. L., Metherell, L. A. Mutations in NNT encoding nicotinamide nucleotide transhydrogenase cause familial glucocorticoid deficiency. Nature Genet. 44: 740-742, 2012. - Roucher-Boulez, F., Mallet-Motak, D., Samara-Boustani, D., Jilani, H., Ladjouze, A., Souchon, P. -F., Simon, D., Nivot, S., Heinrichs, C., Ronze, M., Bertagna, X., Groisne, L., Leheup, B., Naud-Saudreau, C., Blondin, G., Lefevre, C., Lemarchand, L., Morel, Y. NNT mutations: a cause of primary adrenal insufficiency, oxidative stress and extra-adrenal defects. Europ. J. Endocr. 175: 73-84, 2016.

NCBI AND UNIPROT INFORMATION

NCBI GI #	51338801
NCBI GeneID	23530
UniProt Accession #	Q13423; Q16796; Q2TB60; Q8N3V4
Molecular Weight	1086
NCBI Official Full Name	NAD(P) transhydrogenase, mitochondrial
NCBI Official Synonym Full Names	nicotinamide nucleotide transhydrogenase
NCBI Official Symbol	NNT
NCBI Official Synonym Symbols	GCCD4
NCBI Protein Information	NAD(P) transhydrogenase, mitochondrial; NAD(P) transhydrogenase, mitochondrial; pyridine nucleotide transhydrogenase
UniProt Protein Name	NAD(P) transhydrogenase, mitochondrial
UniProt Gene Name	NNT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/nnt-antibody-direct-elisa-flow-cytometry-immunofluorescence-immunocytochemistry-western-blot-elisa/125578>