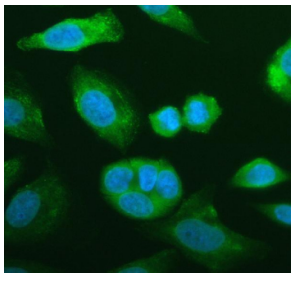
NNMT Antibody / Nicotinamide N-methyltransferase (FY12371)

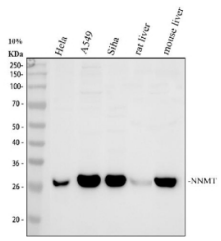
Catalog No.	Formulation	Size
FY12371	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

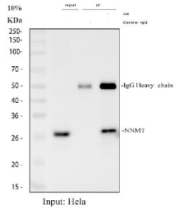
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P40261
Localization	Cytoplasm
Applications	Western Blot: 0.25-0.5ug/ml Immunocytochemistry/Immunofluorescence: 5ug/ml Immunoprecipitation: 2-4ug/500ug of lysate ELISA: 0.1-0.5ug/ml
Limitations	This NNMT antibody is available for research use only.



Immunofluorescent staining of FFPE human SiHa cells with NNMT antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot analysis of NNMT using anti-NNMT antibody. Lane 1: human Hela whole cell lysates, Lane 2: human whole cell lysates, Lane 3: human SIHA whole cell lysates, Lane 4: rat RH35 whole cell lysates, Lane 5: mouse HEPA1-6 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-NNMT antibody at 0.5 ug/ml overnight at 4oC, 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 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected molecular weight of NNMT is ~30 kDa.



Immunoprecipitation of NNMT protein from 500ug of human HeLa whole cell lysate with 2ug of NNMT antibody.

Description

The NNMT antibody targets Nicotinamide N-methyltransferase, a cytosolic enzyme encoded by the NNMT gene that catalyzes the methylation of nicotinamide to form 1-methylnicotinamide (1-MNA) using S-adenosyl-L-methionine (SAM) as a methyl donor. This enzyme plays an essential role in nicotinamide metabolism and methyl group utilization, linking energy homeostasis with epigenetic regulation. Nicotinamide N-methyltransferase influences cellular NAD+ turnover, methylation capacity, and energy balance. The NNMT antibody enables detailed investigation of this metabolic enzyme in physiology, cancer, and metabolic disease.

Nicotinamide N-methyltransferase is expressed in various tissues, with the highest levels in liver, adipose tissue, and skeletal muscle. By regulating nicotinamide levels, NNMT indirectly affects sirtuin activity and NAD+-dependent deacetylation pathways. The NNMT antibody supports research into how this enzyme modulates mitochondrial function, stress resistance, and cellular metabolism. Its detection across metabolic tissues allows mapping of expression patterns that correlate with nutrient availability and hormonal regulation.

Dysregulation of NNMT expression is associated with multiple diseases. Overexpression promotes tumorigenesis by altering cellular methyl donor availability and epigenetic modifications. Elevated Nicotinamide N-methyltransferase activity has been observed in cancers of the liver, kidney, and pancreas, where it contributes to proliferation and metastasis. Conversely, reduced NNMT activity has been linked to insulin resistance and altered lipid metabolism. The NNMT antibody is widely used to quantify enzyme levels and evaluate its role in metabolic reprogramming, energy balance, and disease progression.

In metabolic research, Nicotinamide N-methyltransferase is recognized as a master regulator of one-carbon metabolism, influencing the methionine cycle and SAM/SAH ratio. The NNMT antibody enables functional studies exploring how modulation of enzyme activity impacts methylation reactions and gene expression. Additionally, NNMT-derived metabolites such as 1-MNA exhibit signaling functions that affect endothelial function and anti-inflammatory responses, broadening the enzyme's physiological relevance.

NSJ Bioreagents supplies the NNMT antibody as a validated reagent for western blotting, immunohistochemistry, and immunofluorescence. It provides consistent, high-specificity detection of Nicotinamide N-methyltransferase across tissues and experimental systems. By supporting research into metabolism, oncology, and epigenetics, the NNMT antibody helps elucidate how methyltransferase regulation integrates cellular energy metabolism with gene expression and disease susceptibility.

Application Notes

Optimal dilution of the NNMT antibody should be determined by the researcher.

Immunogen

E.coli-derived human NNMT recombinant protein (Position: K8-L264) was used as the immunogen for the NNMT antibody.

Storage

After reconstitution, the NNMT antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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