

**NNMT Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP1024c****Specification**

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**NNMT Antibody (Center) Blocking Peptide - Product Information**Primary Accession [P40261](#)**NNMT Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 4837**Other Names**

Nicotinamide N-methyltransferase, NNMT

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP1024c](/product/products/AP1024c) was selected from the Center region of human NNMT. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**NNMT Antibody (Center) Blocking Peptide - Protein Information****Name** NNMT {ECO:0000303|PubMed:23455543}**Function**

Catalyzes the N-methylation of nicotinamide using the universal methyl donor S-adenosyl-L-methionine to form N1-methylnicotinamide and S-adenosyl-L-homocysteine, a predominant nicotinamide/vitamin B3 clearance pathway (PubMed: [8182091](http://www.uniprot.org/citations/8182091), PubMed: [21823666](http://www.uniprot.org/citations/21823666), PubMed: [23455543](http://www.uniprot.org/citations/23455543)). Plays a central role in regulating cellular methylation potential, by consuming S-adenosyl-L-methionine and limiting its availability for other methyltransferases. Actively mediates genome-wide epigenetic and transcriptional changes through hypomethylation of repressive chromatin marks, such as H3K27me3 (PubMed: [26571212](http://www.uniprot.org/citations/26571212), PubMed: [23455543](http://www.uniprot.org/citations/23455543), PubMed: [31043742](http://www.uniprot.org/citations/31043742)

target="\_blank">31043742</a>). In a developmental context, contributes to low levels of the repressive histone marks that characterize pluripotent embryonic stem cell pre-implantation state (PubMed:<a href="http://www.uniprot.org/citations/26571212" target="\_blank">26571212</a>). Acts as a metabolic regulator primarily on white adipose tissue energy expenditure as well as hepatic gluconeogenesis and cholesterol biosynthesis. In white adipocytes, regulates polyamine flux by consuming S-adenosyl-L-methionine which provides for propylamine group in polyamine biosynthesis, whereas by consuming nicotinamide controls NAD(+) levels through the salvage pathway (By similarity). Via its product N1-methylnicotinamide regulates protein acetylation in hepatocytes, by repressing the ubiquitination and increasing the stability of SIRT1 deacetylase (By similarity). Can also N-methylate other pyridines structurally related to nicotinamide and play a role in xenobiotic detoxification (PubMed:<a href="http://www.uniprot.org/citations/30044909" target="\_blank">30044909</a>).

**Cellular Location**

Cytoplasm.

**Tissue Location**

Predominantly expressed in the liver. A lower expression is seen in the kidney, lung, skeletal muscle, placenta and heart. Not detected in the brain or pancreas

**NNMT Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**NNMT Antibody (Center) Blocking Peptide - Images****NNMT Antibody (Center) Blocking Peptide - Background**

N-methylation is one method by which drug and other xenobiotic compounds are metabolized by the liver. NNMT is the protein responsible for this enzymatic activity, which uses S-adenosyl methionine as the methyl donor.

**NNMT Antibody (Center) Blocking Peptide - References**

Xu,J., Thyroid 16 (2), 151-160 (2006)Roessler,M., Clin. Cancer Res. 11 (18), 6550-6557 (2005)Souto,J.C., Am. J. Hum. Genet. 76 (6), 925-933 (2005)