

**NNMT Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13775c**

**Specification**

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**NNMT Antibody (Center) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P40261</a>
Other Accession	<a href="#">NP_006160.1</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>29574</b>
Antigen Region	<b>101-130</b>

**NNMT Antibody (Center) - Additional Information**

**Gene ID** 4837

**Other Names**

Nicotinamide N-methyltransferase, NNMT

**Target/Specificity**

This NNMT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 101-130 amino acids from the Central region of human NNMT.

**Dilution**

WB~~1:1000  
IHC-P~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

NNMT Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**NNMT Antibody (Center) - 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:[21823666](#), PubMed:[23455543](#), PubMed:[8182091](#)). 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:[23455543](#), PubMed:[26571212](#), PubMed:[31043742](#)). In a developmental context, contributes to low levels of the repressive histone marks that characterize pluripotent embryonic stem cell pre-implantation state (PubMed:[26571212](#)). 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:[30044909](#)).

#### 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

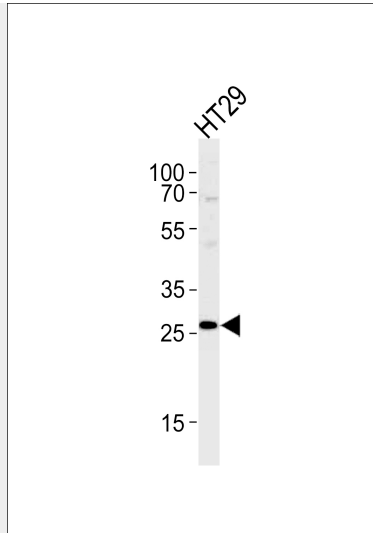
#### NNMT Antibody (Center) - Protocols

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

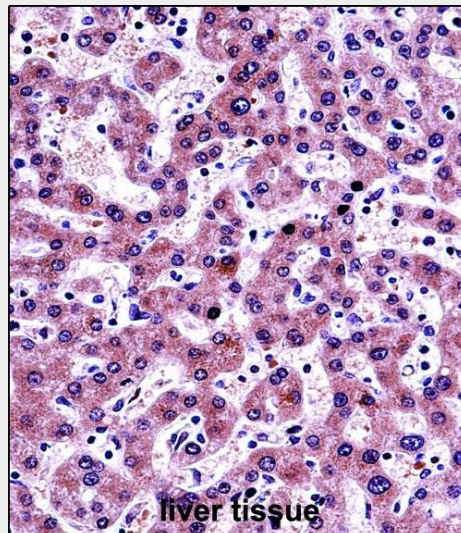
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### NNMT Antibody (Center) - Images





NNMT Antibody (Center) (Cat.# AP13775c) western blot analysis in HT29 cell line lysates (35ug/lane). This demonstrates the NNMT antibody detected the NNMT protein (arrow).



NNMT Antibody (Center) (Cat. #AP13775c) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of NNMT Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

### **NNMT Antibody (Center) - Background**

N-methylation is one method by which drug and other xenobiotic compounds are metabolized by the liver. This gene encodes the protein responsible for this enzymatic activity which uses S-adenosyl methionine as the methyl donor. [provided by RefSeq].

### **NNMT Antibody (Center) - References**

- Giusti, B., et al. Thromb. Haemost. 104(2):231-242(2010)
- Zhang, J., et al. J Zhejiang Univ Sci B 11(2):136-143(2010)
- Emanuelli, M., et al. Histol. Histopathol. 25(1):15-20(2010)
- Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :

van Driel, L.M., et al. J. Nutr. 139(12):2315-2321(2009)