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Goat Anti-NNMT Antibody (N Terminus)

Purified Goat Polyclonal Antibody
Catalog # AF4188a

Specification

Goat Anti-NNMT Antibody (N Terminus) - Product Information

Application	**WB, E**
Primary Accession	P40261
Other Accession	18113(mouse), 300691(rat), NP_006160.1
Reactivity	**Human**
Predicted	**Human, Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5**
Calculated MW	**29574**

Goat Anti-NNMT Antibody (N Terminus) - Additional Information

Gene ID 4837

Other Names
NNMT; nicotinamide N-methyltransferase

Dilution
WB~~1:1000
E~~N/A

Format
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen
Peptide with sequence TSKDTYLSHFNP-C, from the N Terminus of the protein sequence according to NP_006160.1.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-NNMT Antibody (N Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-NNMT Antibody (N Terminus) - 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

Goat Anti-NNMT Antibody (N Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-NNMT Antibody (N Terminus) - Images

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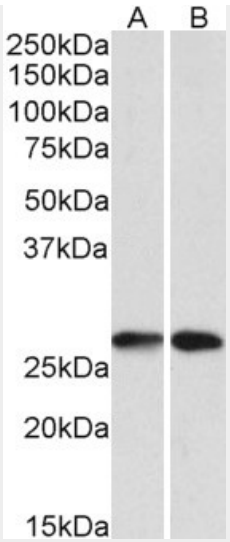

AF4188a (0.1 µg/ml) staining of A549 (A) and HeLA (B) lysates (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-NNMT Antibody (N Terminus) - References

Composite three-marker assay for early detection of kidney cancer. Su Kim D, Choi YD, Moon M, Kang S, Lim JB, Kim KM, Park KM, Cho NH.Su Kim D, Choi YD, Moon M, Kang S, Lim JB, Kim KM, Park KM, Cho NH.Su Kim D, Choi YD, Moon M, Kang S, Lim JB, Kim KM, Park KM, Cho NH. Cancer epidemiology, biomarkers & prevention : a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology 2013 Mar 22 (3): 390-8.