

NNMT (P-23): sc-133833

BACKGROUND

Nicotinamide N-methyltransferase (NNMT) catalyzes the N-methylation of nicotin-amide and other pyridines. NNMT activity in the human liver has a bimodal frequency distribution, indicating that its enzyme activity may be modulated through a genetic polymorphism, which could have functional implications for individual differences in drug and xenobiotic toxicity. The gene that encodes human NNMT is approximately 16.5 kb in length, consists of three exons and two introns and maps to 11q23.2. NNMT isolated from the human liver was determined to be 969 nucleotides in length, with a 792 nucleotide open reading frame that encodes a 264 amino acid protein. The NNMT gene is presumed to be a significant genetic determinant of plasma homocysteine levels in Spanish families, since it encodes an enzyme involved in homocysteine synthesis.

REFERENCES

1. Yan, L., et al. 1998. Mouse nicotinamide N-methyltransferase gene: molecular cloning, structural characterization, and chromosomal localization. *DNA Cell Biol.* 17: 659-667.
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3. Parsons, R.B., et al. 2002. Expression of nicotinamide N-methyltransferase (E.C. 2.1.1.1) in the Parkinsonian brain. *J. Neuropathol. Exp. Neurol.* 61: 111-124.
4. Parsons, R.B., et al. 2003. High expression of nicotinamide N-methyltransferase in patients with idiopathic Parkinson's disease. *Neurosci. Lett.* 342: 13-16.
5. Xu, J., et al. 2003. Enhanced expression of nicotinamide N-methyltransferase in human papillary thyroid carcinoma cells. *J. Clin. Endocrinol. Metab.* 88: 4990-4996.
6. Roessler, M., et al. 2005. Identification of nicotinamide N-methyltransferase as a novel serum tumor marker for colorectal cancer. *Clin. Cancer Res.* 11: 6550-6557.
7. Souto, J.C., et al. 2005. A genomewide exploration suggests a new candidate gene at chromosome 11q23 as the major determinant of plasma homocysteine levels: results from the GAIT project. *Am. J. Hum. Genet.* 76: 925-933.

CHROMOSOMAL LOCATION

Genetic locus: NNMT (human) mapping to 11q23.2; Nnmt (mouse) mapping to 9 A5.3.

SOURCE

NNMT (P-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic NNMT peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

NNMT (P-23) is recommended for detection of NNMT of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NNMT siRNA (h): sc-61213, NNMT siRNA (m): sc-61214, NNMT shRNA Plasmid (h): sc-61213-SH, NNMT shRNA Plasmid (m): sc-61214-SH, NNMT shRNA (h) Lentiviral Particles: sc-61213-V and NNMT shRNA (m) Lentiviral Particles: sc-61214-V.

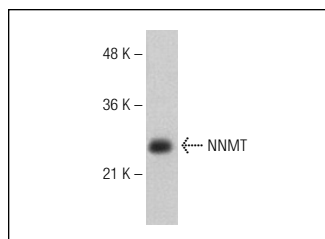
Molecular Weight of NNMT: 30 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



NNMT (P-23): sc-133833. Western blot analysis of NNMT expression in Hep G2 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **NNMT (G-4): sc-376048**, our highly recommended monoclonal alternative to NNMT (P-23).