

INMT (C-15): sc-243083

BACKGROUND

Methylation is an important reaction in the metabolism of many drugs, other xenobiotics and endogenous molecules. A methyltransferase is a type of transferase enzyme that transfers a methyl group from a donor to an acceptor. INMT (indolethylamine N-methyltransferase), also known as Temt or aromatic alkylamine N-methyltransferase, is a 264 amino acid protein belonging to the NNMT/PNMT/TEMT family. Localized to the cytoplasm, INMT catalyzes the N-methylation of tryptamine and structurally related compounds. Existing as a monomer, INMT may have a role in the *in vivo* synthesis of psychoactive compounds or neurotoxins. The gene encoding INMT maps to human chromosome 7p14.3 and mouse chromosome 6 B3.

REFERENCES

1. Bhikharidas, B., Mann, L.R. and McLeod, W.R. 1975. Indolamine N-methyltransferase activity in human tissues. *J. Neurochem.* 24: 203-205.
2. Rokach, J., Girard, Y., Hamel, P., Reader, G., Rooney, C.S., Mandel, L.R., Cragoe, E.J. and Zacchei, A.G. 1980. Inhibitors of indolethylamine N-methyltransferase. Derivatives of 3-methyl-2-thiazolidinimine. *In vitro, in vivo*, and metabolic studies. *J. Med. Chem.* 23: 773-780.
3. Irace, G., Colonna, G., Camardella, M., Della Pietra, G. and Porta, R. 1982. Purification and molecular properties of rabbit lung indolamine N-methyltransferase. *Biochemistry* 21: 1464-1470.
4. Li, E., Bestor, T.H. and Jaenisch, R. 1992. Targeted mutation of the DNA methyltransferase gene results in embryonic lethality. *Cell* 69: 915-926.
5. Fujioka, M. 1992. Mammalian small molecule methyltransferases: their structural and functional features. *Int. J. Biochem.* 24: 1917-1924.
6. Thompson, M.A. and Weinshilboum, R.M. 1998. Rabbit lung indolethylamine N-methyltransferase. cDNA and gene cloning and characterization. *J. Biol. Chem.* 273: 34502-34510.
7. Thompson, M.A., Moon, E., Kim, U.J., Xu, J., Siciliano, M.J. and Weinshilboum, R.M. 1999. Human indolethylamine N-methyltransferase: cDNA cloning and expression, gene cloning, and chromosomal localization. *Genomics* 61: 285-297.

CHROMOSOMAL LOCATION

Genetic locus: INMT (human) mapping to 7p14.3.

SOURCE

INMT (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of INMT of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243083 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

INMT (C-15) is recommended for detection of INMT of 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

INMT (C-15) is also recommended for detection of INMT in additional species, including equine.

Suitable for use as control antibody for INMT siRNA (h): sc-89715, INMT shRNA Plasmid (h): sc-89715-SH and INMT shRNA (h) Lentiviral Particles: sc-89715-V.

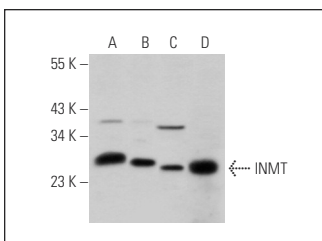
Molecular Weight of INMT: 29 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



INMT (C-15): sc-243083. Western blot analysis of INMT expression in NTERA-2 cl.D1 (A), HeLa (B) and A549 (C) whole cell lysates and human fetal liver tissue extract (D).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.