SANTA CRUZ BIOTECHNOLOGY, INC.

GNMT (H-225): sc-68871

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Glycine N-methyltransferase (GNMT) is a 295 amino acid protein that catalyzes the methylation of glycine by using S-adenosylmethionine (AdoMet) to form N-methylglycine (sarcosine) with the concomitant production of S-adenosyl-homocysteine (AdoHcy). This process indicates that GNMT probably plays a crucial role in the regulation of tissue concentration of AdoMet and in the metabolism of methionine. Originally identified as a methyl donor, AdoMet is now considered a key metabolite that regulates hepatocyte growth, death and differentiation. Biosynthesis of AdoMet occurs in all mammalian cells as the first step in methionine catabolism in a reaction catalyzed by methionine adenosyltransferase (MAT). Decreased hepatic AdoMet biosynthesis is a consequence of all forms of chronic liver injury. In chronic liver AdoMet deficiency, the liver is predisposed to further injury and can develop spontaneous steatohepatitis and hepatocellular carcinoma. However, impaired AdoMet metabolism, which occurs in patients with mutations of GNMT, can also lead to liver injury.

CHROMOSOMAL LOCATION

Genetic locus: GNMT (human) mapping to 6p21.1; Gnmt (mouse) mapping to 17 C.

SOURCE

GNMT (H-225) is a rabbit polyclonal antibody raised against amino acids 71-295 mapping at the C-terminus of GNMT 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.

APPLICATIONS

GNMT (H-225) is recommended for detection of glycine N-methyltransferase 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)], 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).

GNMT (H-225) is also recommended for detection of glycine N-methyltransferase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GNMT siRNA (h): sc-62391, GNMT siRNA (m): sc-62392, GNMT shRNA Plasmid (h): sc-62391-SH, GNMT shRNA Plasmid (m): sc-62392-SH, GNMT shRNA (h) Lentiviral Particles: sc-62391-V and GNMT shRNA (m) Lentiviral Particles: sc-62392-V.

Molecular Weight of GNMT: 33 kDa.

Positive Controls: GNMT (h4): 293 Lysate: sc-158555, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

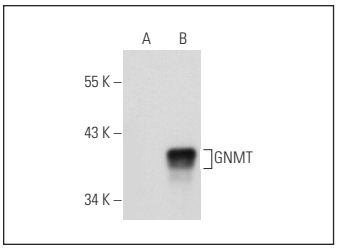
RESEARCH USE

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

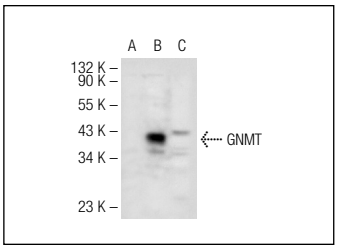
STORAGE

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

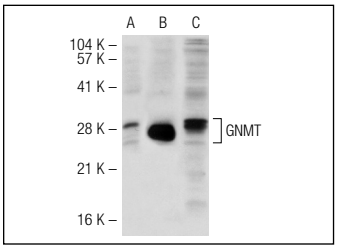
DATA



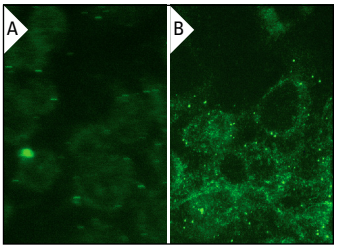
GNMT (H-225): sc-68871. Western blot analysis of GNMT expression in non-transfected: sc-117752 (**A**) and human GNMT transfected: sc-158555 (**B**) 293T whole cell lysates.



GNMT (H-225): sc-68871. Western blot analysis of GNMT expression in non-transfected 293T: sc-117752 (**A**), human GNMT transfected 293T: sc-170814 (**B**) and HeLa (**C**) whole cell lysates.



GNMT (H-225): sc-68871. Western blot analysis of GNMT expression in non-transfected 293T: sc-117752 (**A**), human GNMT transfected 293T: sc-115155 (**B**) and HeLa (**C**) whole cell lysates.



GNMT (H-225): sc-68871. Immunofluorescence staining of methanol-fixed untransfected (**A**) and human GNMT transfected HEK 293T cells (**B**).

PROTOCOLS

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