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GNMT (h3): 293T Lysate: sc-170814

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 steato-hepatitis and hepatocellular carcinoma. However, impaired AdoMet metabolism, which occurs in patients with mutations of GNMT, can also lead to liver injury.

REFERENCES

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6. Mato, J.M. and Lu, S.C. 2007. Role of S-adenosyl-L-methionine in liver health and injury. *Hepatology* 45: 1306-1312.
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CHROMOSOMAL LOCATION

Genetic locus: GNMT (human) mapping to 6p21.1.

RESEARCH USE

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

PRODUCT

GNMT (h3): 293T Lysate represents a lysate of human GNMT transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

GNMT (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive GNMT antibodies. Recommended use: 10-20 µl per lane.

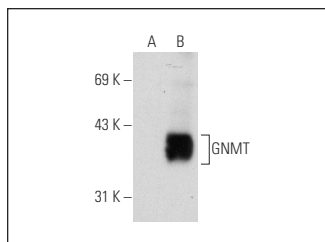
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GNMT (A-4): sc-166834 is recommended as a positive control antibody for Western Blot analysis of enhanced human GNMT expression in GNMT transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



GNMT (A-4): sc-166834. Western blot analysis of GNMT expression in non-transfected: sc-117752 (A) and human GNMT transfected: sc-170814 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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