

N6AMT2 (S-13): sc-84221

BACKGROUND

N6AMT2 (N-6 adenine-specific DNA methyltransferase 2), also known as ESP13, is a 214 amino acid protein that is encoded by a gene located on human chromosome 13q12.11. Comprising nearly 4% of the human genome, chromosome 13 contains around 114 million base pairs and encodes over 400 genes. Chromosome 13 houses key tumor suppressor genes, including BRCA2 and RB1, which are associated with breast cancer susceptibility and retinoblastoma, respectively. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurological defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

1. Dunham, A., et al. 2004. The DNA sequence and analysis of human chromosome 13. *Nature* 428: 522-528.
2. Hsu, H.F. and Hou, J.W. 2007. Variable expressivity in Patau syndrome is not all related to trisomy 13 mosaicism. *Am. J. Med. Genet. A* 143A: 1739-1748.
3. Hall, H.E., et al. 2007. The origin of trisomy 13. *Am. J. Med. Genet. A* 143A: 2242-2248.
4. Bugge, M., et al. 2007. Non-disjunction of chromosome 13. *Hum. Mol. Genet.* 16: 2004-2010.
5. Hassler, M., et al. 2007. Crystal structure of the retinoblastoma protein N domain provides insight into tumor suppression, ligand interaction, and holoprotein architecture. *Mol. Cell* 28: 371-385.
6. Thorslund, T. and West, S.C. 2007. BRCA2: a universal recombinase regulator. *Oncogene* 26: 7720-7730.

CHROMOSOMAL LOCATION

Genetic locus: N6AMT2 (human) mapping to 13q12.11; N6amt2 (mouse) mapping to 14 C3.

SOURCE

N6AMT2 (S-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of N6AMT2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-84221 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

N6AMT2 (S-13) is recommended for detection of N6AMT2 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).

Suitable for use as control antibody for N6AMT2 siRNA (h): sc-106278, N6AMT2 siRNA (m): sc-149781, N6AMT2 shRNA Plasmid (h): sc-106278-SH, N6AMT2 shRNA Plasmid (m): sc-149781-SH, N6AMT2 shRNA (h) Lentiviral Particles: sc-106278-V and N6AMT2 shRNA (m) Lentiviral Particles: sc-149781-V.

Molecular Weight (predicted) of N6AMT2: 25 kDa.

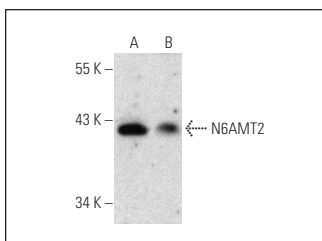
Molecular Weight (observed) of N6AMT2: 33 kDa.

Positive Controls: mouse brain extract: sc-2253 or Hep G2 cell lysate: sc-2227.

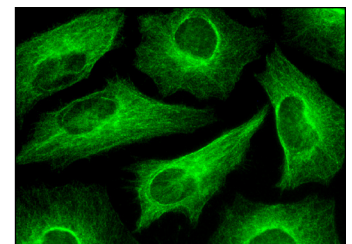
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



N6AMT2 (S-13): sc-84221. Western blot analysis of N6AMT2 expression in Hep G2 whole cell lysate (A) and mouse brain tissue extract (B).



N6AMT2 (S-13): sc-84221. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization.

RESEARCH USE

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

MONOS
Satisfaction
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Try **N6AMT2 (H-3): sc-390240**, our highly recommended monoclonal alternative to N6AMT2 (S-13).