

NAT-8B (F-13): sc-139407

BACKGROUND

Acetyltransferases and deacetylases are protein groups most often associated with oncogenesis and cell cycle regulation. NAT-8B (N-acetyltransferase 8B), also known as CML2 (canello-like protein 2), is a 227 amino acid single-pass membrane protein that is implicated in gastrulation regulation. A member of the canello family, NAT-8B contains one N-acetyltransferase domain and is encoded by a gene that maps to human chromosome 2p13.2. The NAT-8B gene is susceptible to a nonsense mutation at Serine 16, which leads to a stop codon and subsequently, a non-functional protein that is truncated in length. Similarly, a nonsense mutation at Glutamine 168 is thought to lead to a non-functional protein, as it causes the N-acetyltransferase to become disrupted. Human chromosome 2 consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin ichthyosis, sitosterolemia and Alström syndrome.

REFERENCES

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- Popsueva, A.E., et al. 2001. Overexpression of canello, a member of a novel protein family, reduces blastomere adhesion and inhibits gastrulation in *Xenopus laevis*. *Dev. Biol.* 234: 483-496.
- Polevoda, B., et al. 2003. N-terminal acetyltransferases and sequence requirements for N-terminal acetylation of eukaryotic proteins. *J. Mol. Biol.* 325: 595-622.
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- Hahn, Y., et al. 2006. Human-specific nonsense mutations identified by genome sequence comparisons. *Hum. Genet.* 119: 169-178.
- Polevoda, B., et al. 2009. A synopsis of eukaryotic N α -terminal acetyltransferases: nomenclature, subunits and substrates. *BMC Proc.* 3: S2.

CHROMOSOMAL LOCATION

Genetic locus: NAT8B (human) mapping to 2p13.1.

SOURCE

NAT-8B (F-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of NAT-8B of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-139407 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NAT-8B (F-13) is recommended for detection of NAT-8B of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with NAT-8.

Suitable for use as control antibody for NAT-8B siRNA (h): sc-94680, NAT-8B shRNA Plasmid (h): sc-94680-SH and NAT-8B shRNA (h) Lentiviral Particles: sc-94680-V.

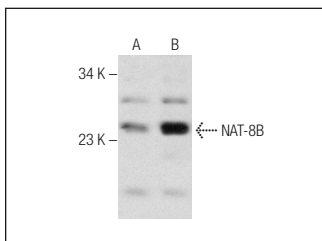
Molecular Weight of NAT-8B: 25 kDa.

Positive Controls: NAT-8B (h): 293T Lysate: sc-176074.

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



NAT-8B (F-13): sc-139407. Western blot analysis of NAT-8B expression in non-transfected: sc-117752 (A) and human NAT-8B transfected: sc-176074 (B) 293T whole cell lysates.

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.

PROTOCOLS

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