SANTA CRUZ BIOTECHNOLOGY, INC.

NMS (C-14): sc-168767

BACKGROUND

NMS (neuromedin-S) is a 153 amino acid secreted protein that belongs to the NmU family. NMS is implicated in the regulation of circadian rhythms through autocrine and/or paracrine actions. The gene that encodes NMS consists of approximately 12,799 bases and maps to human chromosome 2q11.2. Consisting of 237 million bases and encoding over 1,400 genes, chromosome 2 makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene.

REFERENCES

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2. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
3. Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. Nat. Genet. 31: 79-83.
4. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
5. Mori, K., et al. 2005. Identification of neuromedin S and its possible role in the mammalian circadian oscillator system. EMBO J. 24: 325-335.
6. Miyazato, M., et al. 2008. Identification and functional analysis of a novel ligand for G protein-coupled receptor, Neuromedin S. Regul. Pept. 145: 37-41.
7. Mitchell, J.D., et al. 2009. Emerging pharmacology and physiology of neuromedin U and the structurally related peptide neuromedin S. Br. J. Pharmacol. 158: 87-103.

CHROMOSOMAL LOCATION

Genetic locus: NMS (human) mapping to 2q11.2.

SOURCE

NMS (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NMS of human origin.

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.

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-168767 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NMS (C-14) is recommended for detection of NMS 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).

NMS (C-14) is also recommended for detection of NMS in additional species, including canine.

Suitable for use as control antibody for NMS siRNA (h): sc-94477, NMS shRNA Plasmid (h): sc-94477-SH and NMS shRNA (h) Lentiviral Particles: sc-94477-V.

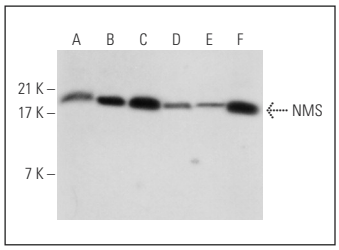
Molecular Weight of NMS: 18 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HEK293 whole cell lysate: sc-45136, or Jurkat whole cell lysate: sc-2204.

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



NMS (C-14): sc-168767. Western blot analysis of NMS expression in SH-SY5Y (**A**), MCF7 (**B**), HEK293 (**C**), HUV-EC-C (**D**), Hep G2 (**E**) and Jurkat (**F**) whole cell lysates.

RESEARCH USE

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