SANTA CRUZ BIOTECHNOLOGY, INC.

NOM1 (A-14): sc-163158

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NOM1 (nucleolar protein with MIF4G domain 1), also known as SGD1, is an 860 amino acid protein that localizes to the nucleolus, where it plays a role in targeting PP1. A member of the CWC22 family, NOM1 is expressed in skeletal muscle and heart, and contains one MI domain and a MIF4G domain. The MIF4G typically functions in protein translation and may act as a binding site for members of the eIF4A family. As such, NOM1 is thought to interact with eIF4AI, eIF4AII and eIF4AIII. The gene encoding NOM1 maps to human chromosome 7, which houses over 1,000 genes, comprises nearly 5% of the human genome and has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. J. Clin. Invest. 72: 1262-1267.
2. Heus, H.C., et al. 1999. A physical and transcriptional map of the preaxial polydactyly locus on chromosome 7q36. Genomics 57: 342-351.
3. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. Arch. Otolaryngol. Head Neck Surg. 127: 705-708.
4. Simmons, H.M., et al. 2005. Identification of NOM1, a nucleolar, eIF4A binding protein encoded within the chromosome 7q36 breakpoint region targeted in cases of pediatric acute myeloid leukemia. Gene 347: 137-145.
5. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular. Med. 8: 547-565.
6. Gilbert-Dussardier, B. 2006. Williams-Beuren syndrome. Rev. Prat. 56: 2102-2106.

CHROMOSOMAL LOCATION

Genetic locus: NOM1 (human) mapping to 7q36.3; Nom1 (mouse) mapping to 5 B1.

SOURCE

NOM1 (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NOM1 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.

Blocking peptide available for competition studies, sc-163158 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.

APPLICATIONS

NOM1 (A-14) is recommended for detection of NOM1 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 NOM1 siRNA (h): sc-89566, NOM1 siRNA (m): sc-150029, NOM1 shRNA Plasmid (h): sc-89566-SH, NOM1 shRNA Plasmid (m): sc-150029-SH, NOM1 shRNA (h) Lentiviral Particles: sc-89566-V and NOM1 shRNA (m) Lentiviral Particles: sc-150029-V.

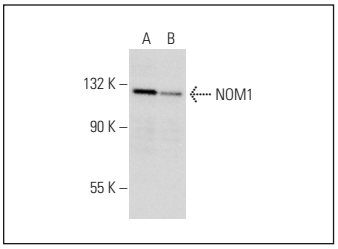
Molecular Weight of NOM1: 96 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat nuclear extract: sc-2132.

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



NOM1 (A-14): sc-163158. Western blot analysis of NOM1 expression in HeLa (**A**) and Jurkat (**B**) nuclear extracts.

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.