

NOMO (N-16): sc-74746

BACKGROUND

Three highly similar proteins, termed NOMO1, NOMO2 and NOMO3, are encoded by a gene mapping to a region of duplication on the p arm of human chromosome 16. All three NOMO proteins share similar functions and have been difficult to characterize individually. NOMO1 (nodal modulator 1), also known as PM5, is a 1,222 amino acid highly conserved single-pass type I membrane protein expressed in colon tumor tissue and normal colonic mucosa. NOMO proteins are novel antagonists of Nodal signaling which interact with Nicalin to form a Nicalin-NOMO complex, and are rapidly degraded or stabilized by Nicalin. NOMO proteins were once considered candidates for the development of pseudoxanthoma elasticum (PXE), a heritable disorder of connective tissue, as the NOMO genes are located in close proximity to the gene responsible for PXE development (MRP6).

REFERENCES

1. Templeton, N.S., et al. 1992. Cloning and characterization of a novel human cDNA that has DNA similarity to the conserved region of the collagenase gene family. *Genomics* 12: 175-176.
2. Loftus, B.J., et al. 1999. Genome duplications and other features in 12 Mb of DNA sequence from human chromosome 16p and 16q. *Genomics* 60: 295-308.
3. Perdu, J. and Germain, D.P. 2001. Identification of novel polymorphisms in the pM5 and MRP1 (ABCC1) genes at locus 16p13.1 and exclusion of both genes as responsible for pseudoxanthoma elasticum. *Hum. Mutat.* 17: 74-75.
4. Haffner, C., et al. 2004. Nicalin and its binding partner NOMO are novel Nodal signaling antagonists. *EMBO J.* 23: 3041-3050.
5. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609157. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: NOMO1/NOMO3 (human) mapping to 16p13.11, NOMO2 (human) mapping to 16p12.3; Nomo1 (mouse) mapping to 7 B4.

SOURCE

NOMO (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of NOMO1 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-74746 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

NOMO (N-16) is recommended for detection of NOMO1 of mouse, rat and human origin, and NOMO2 and NOMO3 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).

NOMO (N-16) is also recommended for detection of NOMO1, NOMO2 and NOMO3 in additional species, including equine, canine, bovine and avian.

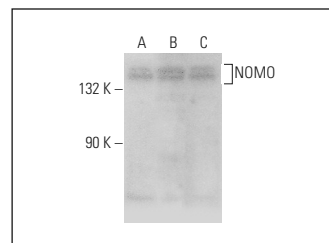
Molecular Weight of NOMO: 130 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

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



NOMO (N-16): sc-74746. Western blot analysis of NOMO expression in COLO 320DM (A), MCF7 (B) and HeLa (C) whole cell lysates.

RESEARCH USE

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



Try **NOMO (B-10): sc-390565**, our highly recommended monoclonal alternative to NOMO (N-16).