SANTA CRUZ BIOTECHNOLOGY, INC.

NOMO (B-10): sc-390565

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 to16p12.3; Nomo1 (mouse) mapping to 7 B4.

SOURCE

NOMO (B-10) is a mouse monoclonal antibody raised against amino acids 957-1222 mapping at the C-terminus of NOMO3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NOMO (B-10) is available conjugated to agarose (sc-390565 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390565 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390565 PE), fluorescein (sc-390565 FITC), Alexa Fluor® 488 (sc-390565 AF488), Alexa Fluor® 546 (sc-390565 AF546), Alexa Fluor® 594 (sc-390565 AF594) or Alexa Fluor® 647 (sc-390565 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390565 AF680) or Alexa Fluor® 790 (sc-390565 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NOMO (B-10) is recommended for detection of NOMO1, NOMO2 and NOMO3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

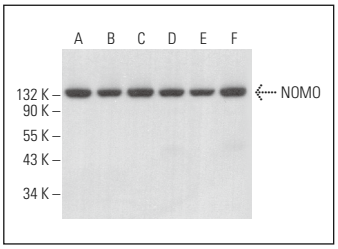
Molecular Weight of NOMO: 130 kDa.

Positive Controls: F9 cell lysate: sc-2245, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

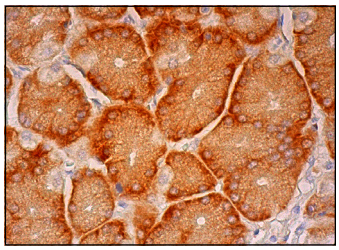
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



NOMO (B-10): sc-390565. Western blot analysis of NOMO expression in HeLa (**A**), Caki-1 (**B**), COLO 205 (**C**), WEHI-231 (**D**), F9 (**E**) and NIH/3T3 (**F**) whole cell lysates.



NOMO (B-10): sc-390565. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

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 for detailed protocols and support products.