SANTA CRUZ BIOTECHNOLOGY, INC.

NALP7 (H-155): sc-99001

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Most short NALPs, such as NALP7 (PYPAF3), have a C-terminal leucine-rich repeat (LRR) region, an N-terminal Pyrin (MEFV) domain (PYD) followed by a NACHT domain, and a NACHT-associated domain (NAD). NALP7, which demonstrates expression in several tissues, including uterus and ovary, while showing low levels of expression in heart and brain tissues, inhibits CASP1/caspase-1-dependent IL-1β secretion through a direct interaction with CASP1 and IL-1β. Defects in the NALP7 gene are known to cause the formation of a hydatidiform mole (HYDM), an abnormal human pregnancy with no embryo and cystic degeneration of placental villi. Knockdown of the NALP7 gene via RNA interference reduces the growth of carcinoma cell lines, leading to the conclusion that NALP7 may play a crucial role in cell proliferation. The NALP7 gene maps to chromosome 19q13.42, within a cluster of many other NALP genes.

REFERENCES

1. Moglabey, Y.B., et al. 1999. Genetic mapping of a maternal locus responsible for familial hydatidiform moles. Hum. Mol. Genet. 8: 667-671.
2. Agarwal, P., et al. 2004. Familial recurrent molar pregnancy: a case report. Acta Obstet. Gynecol. Scand. 83: 213-214.
3. Okada, K., et al. 2004. Oncogenic role of NALP7 in testicular seminomas. Cancer Sci. 95: 949-954.
4. Drygin, D., et al. 2005. Induction of toll-like receptors and NALP/PAN/PYPAF family members by modified oligonucleotides in lung epithelial carcinoma cells. Oligonucleotides 15: 105-118.
5. Kinoshita, T., et al. 2005. PYPAF3, a Pyrin-containing Apaf-1-like protein, is a feedback regulator of caspase-1-dependent interleukin-1β secretion. J. Biol. Chem. 280: 21720-21725.
6. Murdoch, S., et al. 2006. Mutations in NALP7 cause recurrent hydatidiform moles and reproductive wastage in humans. Nat. Genet. 38: 300-302.

CHROMOSOMAL LOCATION

Genetic locus: NLRP7 (human) mapping to 19q13.42.

SOURCE

NALP7 (H-155) is a rabbit polyclonal antibody raised against amino acids 16-170 mapping near the N-terminus of NALP7 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.

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.

APPLICATIONS

NALP7 (H-155) is recommended for detection of NALP7 isoforms 1 and 2 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).

Suitable for use as control antibody for NALP7 siRNA (h): sc-61149, NALP7 shRNA Plasmid (h): sc-61149-SH and NALP7 shRNA (h) Lentiviral Particles: sc-61149-V.

Molecular Weight of NALP7: 112 kDa.

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.

PROTOCOLS

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