

NALP7 (L-19): sc-50641

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-1 β secretion through a direct interaction with CASP1 and IL-1 β . 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-1 β 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: NLRP5 (human) mapping to 19q13.42.

SOURCE

NALP7 (L-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NALP7 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50641 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NALP7 (L-19) is recommended for detection of all isoforms of NALP7 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

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.

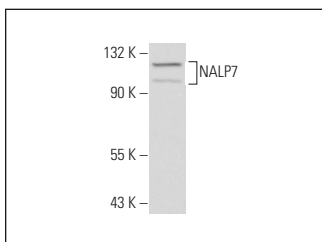
Molecular Weight of NALP7: 112 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

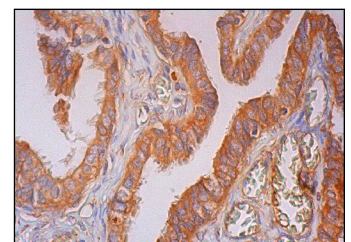
RECOMMENDED SECONDARY REAGENTS

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 MarkerTM compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz MarkerTM 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 UltraCruzTM Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruzTM: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



NALP7 (L-19): sc-50641. Western blot analysis of NALP7 expression in Jurkat whole cell lysate.



NALP7 (L-19): sc-50641. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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

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Try **NALP7 (C-8): sc-377190**, our highly recommended monoclonal alternative to NALP7 (L-19).