

NALP7 (C-8): sc-377190

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.

CHROMOSOMAL LOCATION

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

SOURCE

NALP7 (C-8) is a mouse monoclonal antibody raised against amino acids 16-170 mapping near the N-terminus of NALP7 of human origin.

PRODUCT

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

NALP7 (C-8) is available conjugated to agarose (sc-377190 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377190 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377190 PE), fluorescein (sc-377190 FITC), Alexa Fluor[®] 488 (sc-377190 AF488), Alexa Fluor[®] 546 (sc-377190 AF546), Alexa Fluor[®] 594 (sc-377190 AF594) or Alexa Fluor[®] 647 (sc-377190 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377190 AF680) or Alexa Fluor[®] 790 (sc-377190 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

NALP7 (C-8) is recommended for detection of NALP7 isoforms 1 and 2 of human origin by Western Blotting (starting dilution 1:100, 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.

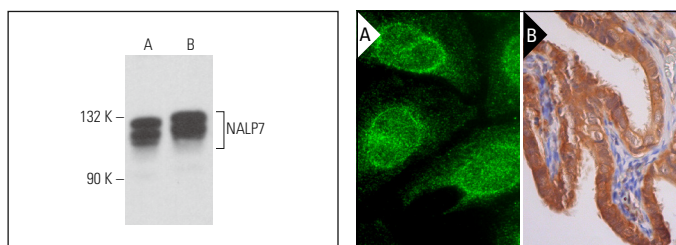
Molecular Weight of NALP7: 112 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or Raji whole cell lysate: sc-364236.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



NALP7 (C-8): sc-377190. Western blot analysis of NALP7 expression in Ramos (A) and Raji (B) whole cell lysates.

NALP7 (C-8): sc-377190. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic and nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Zhao, Z., et al. 2022. Early pregnancy modulates expression of the nod-like receptor family in lymph nodes of ewes. *Animals* 12: 3285.
2. Zhang, L., et al. 2022. Modulation of nod-like receptor expression in the thymus during early pregnancy in ewes. *Vaccines* 10: 2128.
3. Wu, J., et al. 2023. Changes in expression levels of Nod-like receptors in the spleen of ewes. *Anim. Reprod.* 20: e20220093.

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.