

NALP2 (H-4): sc-166584

BACKGROUND

NALP2 (PAN1, PYPAF2) is a 1,062 amino acid protein that catalyzes the suppression of TNF- and CD40-induced NFKB1 activity at the level of the IKK complex by inhibiting NFKBIA degradation induced by TNF. When associated with PYCARD, NALP2 activates CASP1, which leads to the secretion of mature pro-inflammatory cytokine IL1B. As a probable member of the inflammasome, a protein complex which also includes PYCARD, CARD8 and CASP1, NALP2 may be involved in the activation of proinflammatory caspases. NALP2 shows predominant expression in lung, placenta and thymus tissues, and demonstrates lower levels of expression in ovary, intestine and brain tissues. NALP2 contains one DAPIN domain, nine LRR (leucine-rich) repeats and one NACHT domain. The DAPIN domain is crucial for the suppression of NFKB1 activation and for inducing IL1B secretion in collaboration with caspase-1.

REFERENCES

1. Moricca, G., et al. 1981. Neuroadenolysis of the pituitary. *Acta Anaesthesiol. Belg.* 32: 87-99.
2. Yanagida, H., et al. 1984. Relief of cancer pain in man: alcohol-induced neuroadenolysis vs. electrical stimulation of the pituitary gland. *Pain* 19: 133-141.

CHROMOSOMAL LOCATION

Genetic locus: NLRP2 (human) mapping to 19q13.42; Nlrp2 (mouse) mapping to 7 A1.

SOURCE

NALP2 (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 665-695 within an internal region of NALP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NALP2 (H-4) is available conjugated to agarose (sc-166584 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166584 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166584 PE), fluorescein (sc-166584 FITC), Alexa Fluor® 488 (sc-166584 AF488), Alexa Fluor® 546 (sc-166584 AF546), Alexa Fluor® 594 (sc-166584 AF594) or Alexa Fluor® 647 (sc-166584 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166584 AF680) or Alexa Fluor® 790 (sc-166584 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166584 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NALP2 (H-4) is recommended for detection of all isoforms of NALP2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NALP2 siRNA (h): sc-61143, NALP2 siRNA (m): sc-149811, NALP2 shRNA Plasmid (h): sc-61143-SH, NALP2 shRNA Plasmid (m): sc-149811-SH, NALP2 shRNA (h) Lentiviral Particles: sc-61143-V and NALP2 shRNA (m) Lentiviral Particles: sc-149811-V.

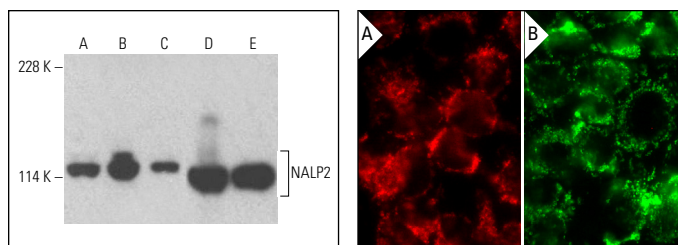
Molecular Weight of NALP2: 121 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, NK-92 whole cell lysate: sc-364788 or NIH/3T3 whole cell lysate: sc-2210.

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.

DATA



NALP2 (H-4) HRP: sc-166584 HRP. Direct western blot analysis of NALP2 expression in K-562 (A), NK-92 (B), HeLa (C), NIH/3T3 (D) and AMJ2-C8 (E) whole cell lysates.

NALP2 (H-4): sc-166584. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A,B).

SELECT PRODUCT CITATIONS

1. Rossi, M.N., et al. 2019. NLRP2 regulates proinflammatory and antiapoptotic responses in proximal tubular epithelial cells. *Front. Cell Dev. Biol.* 7: 252.
2. Tsai, P.Y., et al. 2019. NLRP7 is involved in the differentiation of the decidual macrophages. *Int. J. Mol. Sci.* 20 pii: E5994.

RESEARCH USE

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