

# NALP2 (K-18): sc-50617

## 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 proinflammatory cytokine IL1B. NALP2 is a putative component of the inflammasome, a protein complex which also includes PYCARD, CARD8 and CASP1. 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

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- 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.
- Morimoto, M., et al. 1991. Diffusion of alcohol upon application of neuroadenolysis of the pituitary gland (NALP). An experimental study using HRP and WGA-HRP in the cat. *Fukuoka Igaku Zasshi* 82: 475-479.
- Bruey, J.M., et al. 2004. PAN1/NALP2/PYPAF2, an inducible inflammatory mediator that regulates NFκB and caspase-1 activation in macrophages. *J. Biol. Chem.* 279: 51897-907.
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- 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.

## CHROMOSOMAL LOCATION

Genetic locus: NALP2 (human) mapping to 19q13.42.

## SOURCE

NALP2 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NALP2 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.

Blocking peptide available for competition studies, sc-50617 P, (100 µg pep-tide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NALP2 (K-18) is recommended for detection of all isoforms of NALP2 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).

NALP2 (K-18) is also recommended for detection of all isoforms of NALP2 in additional species, including equine.

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

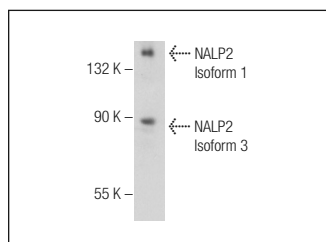
Molecular Weight of NALP2: 121 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

## 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 Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 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 UltraCruz™ Mounting Medium: sc-24941.

## DATA



NALP2 (K-18): sc-50617. Western blot analysis of NALP2 expression in K-562 whole cell lysate.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.