# SANTA CRUZ BIOTECHNOLOGY, INC.

# NALP14 (V-17): sc-68217



#### BACKGROUND

NALP14 (NACHT, LRR and PYD domains-containing protein 14) is a testis specific nucleotide binding protein. It is a member of the NLRP family and contains one DAPIN (Pyrin, AIM, ASC and death domain-like (PAAD)) domain, 11 LRR (leucine-rich) repeats and one NACHT domain. NALP proteins most often act as an intracellular receptors involved in innate immunity. NALP14 has been linked to spermatogenesis but more likely functions as an inflammasome component. The inflammasome comprises a NALP member and an ASC adapter that ensures caspase-1 recruitment to the inflammasome. Different types of inflammasomes are stimulated by a wide variety of microbial, foreign and endogenous materials.

# REFERENCES

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- 2. Tschopp, J., Martinon, F. and Burns, K. 2003. NALPs: a novel protein family involved in inflammation. Nat. Rev. Mol. Cell Biol. 4: 95-104.
- 3. Horikawa, M., Kirkman, N.J., Mayo, K.E., Mulders, S.M., Zhou, J., Bondy, C.A., Hsu, S.Y., King, G.J. and Adashi, E.Y. 2005. The mouse germ-cell-specific leucine-rich repeat protein NALP1.a member of the NACHT nucleoside triphosphatase family. Biol. Reprod. 72: 879-889.
- 4. Kufer, T.A., Fritz, J.H. and Philpott, D.J. 2005, NACHT-LRR proteins (NLRs) in bacterial infection and immunity. Trends Microbiol. 13: 381-388.
- 5. Westerveld, G.H., Korver, C.M., van Pelt, A.M., Leschot, N.J., van der Veen, F., Repping, S. and Lombardi, M.P. 2006. Mutations in the testisspecific NALP14 gene in men suffering from spermatogenic failure. Hum. Reprod. 21: 3178-3184.
- 6. Martinon, F. 2007. Orchestration of pathogen recognition by inflammasome diversity: Variations on a common theme. Eur. J. Immunol. 37: 3003-3006.
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#### CHROMOSOMAL LOCATION

Genetic locus: NLRP14 (human) mapping to 11p15.4.

#### SOURCE

NALP14 (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NALP14 of human origin.

## **STORAGE**

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

## PROTOCOLS

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

#### PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68217 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

NALP14 (V-17) is recommended for detection of NALP14 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).

NALP14 (V-17) is also recommended for detection of NALP14 in additional species, including equine.

Suitable for use as control antibody for NALP14 siRNA (h): sc-62659, NALP14 shRNA Plasmid (h): sc-62659-SH and NALP14 shRNA (h) Lentiviral Particles: sc-62659-V.

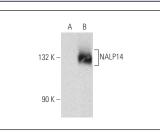
Molecular Weight of NALP14: 125 kDa.

Positive Controls: NALP14 (h): 293T Lysate: sc-174433.

## **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<sup>™</sup> Mounting Medium: sc-24941.

#### DATA



NALP14 (V-17): sc-68217 Western blot analysis of NALP14 expression in non-transfected: sc-117752 (A) and human NALP14 transfected: sc-174433 (B) 293T whole cell lysates

#### **RESEARCH USE**

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