SANTA CRUZ BIOTECHNOLOGY, INC.

NALP1 (B-2): sc-166368

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NACHT-, LRR- and PYD-containing protein 1 (NALP1), also designated caspase recruitment domain protein 7, is a cytoplasmic protein. NALP1 contains a putative nucleotide binding site, a region of leucine-rich repeats and death domain folds at both termini, providing protein/protein association functions such as caspase recruitment. NALP1 is involved in the innate immune response and is a component of the inflammasome. It forms cytoplasmic structures called death effector filaments and enhances APAF1 and cytochrome c-dependent activation of pro-caspase-9 and consecutive apoptosis. NALP1 is widely expressed in thymus, heart, spleen and peripheral blood leukocytes.

CHROMOSOMAL LOCATION

Genetic locus: NLRP1 (human) mapping to 17p13.2; Nlrp1a/Nlrp1b (mouse) mapping to 11 B4.

SOURCE

NALP1 (B-2) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of NALP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NALP1 (B-2) is available conjugated to agarose (sc-166368 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166368 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166368 PE), fluorescein (sc-166368 FITC), Alexa Fluor® 488 (sc-166368 AF488), Alexa Fluor® 546 (sc-166368 AF546), Alexa Fluor® 594 (sc-166368 AF594) or Alexa Fluor® 647 (sc-166368 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166368 AF680) or Alexa Fluor® 790 (sc-166368 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NALP1 (B-2) is recommended for detection of all NALP1 isoforms 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 NALP1 siRNA (h): sc-45479, NALP1 siRNA (m): sc-63287, NALP1 shRNA Plasmid (h): sc-45479-SH, NALP1 shRNA Plasmid (m): sc-63287-SH, NALP1 shRNA (h) Lentiviral Particles: sc-45479-V and NALP1 shRNA (m) Lentiviral Particles: sc-63287-V.

Molecular Weight of NALP1 uniprot human isoform α: 161 kDa.

Molecular Weight of NALP1 uniprot human isoform β: 166 kDa.

Molecular Weight of NALP1 uniprot human isoform γ: 157 kDa.

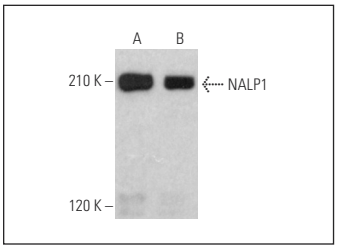
Molecular Weight of NALP1 uniprot human isoform δ: 162 kDa.

Positive Controls: NALP1 (h2): 293T Lysate: sc-116236, Ramos cell lysate: sc-2216 or K-562 whole cell lysate: sc-2203.

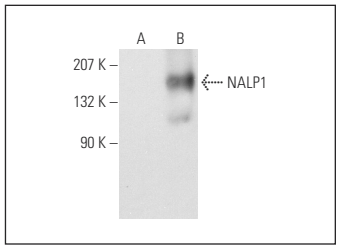
STORAGE

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

DATA



NALP1 (B-2): sc-166368. Western blot analysis of NALP1 expression in Ramos (**A**) and K-562 (**B**) whole cell lysates.



NALP1 (B-2): sc-166368. Western blot analysis of NALP1 expression in non-transfected: sc-117752 (**A**) and human NALP1 transfected: sc-116236 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liu, H., et al. 2012. T63, a new 4-arylidene curcumin analogue, induces cell cycle arrest and apoptosis through activation of the reactive oxygen species-FOXO3a pathway in lung cancer cells. Free Radic. Biol. Med. 53: 2204-2217.
2. Ferrara, F., et al. 2020. Redox regulation of cutaneous inflammasome by ozone exposure. Free Radic. Biol. Med. 152: 561-570.
3. Majidpoor, J., et al. 2020. The expressions of NLRP1, NLRP3, and AIM2 inflammasome complexes in the contusive spinal cord injury rat model and their responses to hormonal therapy. Cell Tissue Res. 381: 397-410.
4. Ferrara, F., et al. 2021. Evaluating the effect of Ozone in UV induced skin damage. Toxicol. Lett. 338: 40-50.
5. Xiao, Y., et al. 2021. Relationship between the pyroptosis of fibroblast-like synoviocytes and HMGB1 secretion in knee osteoarthritis. Mol. Med. Rep. 23: 97.
6. Deng, G., et al. 2022. BECN2 (beclin 2) negatively regulates inflammasome sensors through ATG9A-dependent but ATG16L1- and LC3-independent non-canonical autophagy. Autophagy 18: 340-356.
7. Prieux, R., et al. 2022. Inflammasome involvement in CS-induced damage in HaCaT keratinocytes. In Vitro Cell. Dev. Biol. Anim. 58: 335-348.
8. Ferrara, F., et al. 2022. Ubiquitination as a key regulatory mechanism for O_3-induced cutaneous redox inflammasome activation. Redox Biol. 56: 102440.
9. Ballasch, I., et al. 2023. Ikzf1 as a novel regulator of microglial homeostasis in inflammation and neurodegeneration. Brain Behav. Immun. 109: 144-161.

RESEARCH USE

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