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NALP2 Antibody

Catalog # ASC10169

Product Information

Application	WB, E
Primary Accession	Q9NX02
Other Accession	NP_060322, 8923473
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	120515
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NALP2 antibody can be used for detection of NALP2 by Western blot at 1 to 2 g/mL.

Additional Information

Gene ID	55655
Other Names	NALP2 Antibody: NBS1, PAN1, NALP2, PYPAF2, CLR19.9, NBS1, NACHT, LRR and PYD domains-containing protein 2, Nucleotide-binding site protein 1, NLR family, pyrin domain containing 2
Target/Specificity	NLRP2;
Reconstitution & Storage	NALP2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	NALP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NLRP2 {ECO:0000303|PubMed:30877238, ECO:0000312|HGNC:HGNC:22948}
Function	Component of cytoplasmic lattices, which consist in fibrous structures found in the cytoplasm of oocytes and preimplantation embryos (PubMed:41118754). Cytoplasmic lattices are required to store maternal proteins critical for embryonic development, such as ribosomal proteins, cytoskeletal tubulins and proteins controlling epigenetic reprogramming of the preimplantation embryo, in a poised but restrained state, regulating their availability for early embryonic development (PubMed:41118754). Suppresses TNF- and CD40-induced NFKB1 activity at the level of the IKK complex, by

	inhibiting NFKBIA degradation induced by TNF (PubMed:15456791). When associated with PYCARD, activates CASP1, leading to the secretion of mature pro-inflammatory cytokine IL1B (PubMed:15456791). May be a component of the inflammasome, a protein complex which also includes PYCARD, CARD8 and CASP1 and whose function would be the activation of pro-inflammatory caspases (PubMed:15456791).
Cellular Location	Cytoplasm
Tissue Location	Expressed at high levels in lung, placenta and thymus and at lower levels in ovary, intestine and brain (PubMed:15456791). Highly abundant in oocytes and early embryos, however poorly expressed in somatic tissues such as brain, kidney, liver and spinal cord (PubMed:30877238).

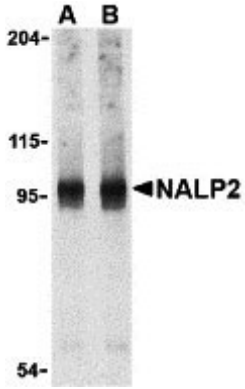
Background

NALP2 Antibody: NALP2 belongs to a family of cytoplasmic proteins that have been implicated in cell responses to apoptotic and inflammatory stimuli. Unlike the prototypical NALP protein NALP1, NALP2 only contains a NACHT domain, leucine rich repeat (LRR), and pyrin-containing domain (PYD). This protein interacts with the adapter protein ASC in addition to CARD8 and caspase-1 to form an inflammasome with high proIL-1β-processing activity and is thought to function as a modulator of NF-κB and procaspase-1 activation in macrophages. It has also been suggested that NALP2, in addition to other NALP family members, can act as innate sensors of pathogens in a manner similar to the toll-like receptors (TLRs). At least two alternatively spliced transcript variants encoding distinct isoforms have been found for NALP2.

References

Tschopp J, Martinon F, and Burns K. NALPs: a novel protein family involved in inflammation. Nat. Rev. Mol. Cell Biol. 2003; 4:95-104.
Bruey JM, Bruey-Sedano N, Newman R, et al. PAN1/NALP2/PYPAF2, an inducible inflammatory mediator that regulates NF-κB and caspase-1 activation in macrophages. J. Biol. Chem. 2004; 279:51897-907.
Agostini L, Martinon F, Burns K, et al. NALP3 forms an IL-1β-processing inflammasome with increased activity in Muckle-Wells autoinflammatory disorder. Immunity 2004; 20:319-25.
Martinon F and Tschopp J. NLRs join TLRs as innate sensors of pathogens. TRENDS Imm. 2005; 26:447-54.

Images



Western blot analysis of NALP2 in PC-3 cell lysate with NALP2 antibody at (A) 1 and (B) 2 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.