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NALP12 Antibody

Catalog # ASC11200

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P59046
Other Accession	NP_653288, 21955154
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	120173
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NALP12 antibody can be used for detection of NALP12 by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	91662
Other Names	NACHT, LRR and PYD domains-containing protein 12, Monarch-1, PYRIN-containing APAF1-like protein 7, Regulated by nitric oxide, NLRP12, NALP12, PYPAF7, RNO
Target/Specificity	NLRP12;
Reconstitution & Storage	NALP12 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	NALP12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NLRP12
Synonyms	NALP12, PYPAF7, RNO
Function	Plays an essential role as an potent mitigator of inflammation (PubMed:30559449). Primarily expressed in dendritic cells and macrophages, inhibits both canonical and non-canonical NF-kappa-B and ERK activation pathways (PubMed:15489334, PubMed:17947705). Functions as a negative regulator of NOD2 by targeting it to degradation via the proteasome pathway (PubMed:30559449). In turn, promotes bacterial tolerance

(PubMed:30559449). Also inhibits the RIGI- mediated immune signaling against RNA viruses by reducing the E3 ubiquitin ligase TRIM25-mediated 'Lys-63'-linked RIGI activation but enhancing the E3 ubiquitin ligase RNF125-mediated 'Lys-48'-linked RIGI degradation (PubMed:30902577). Also acts as a negative regulator of inflammatory response to mitigate obesity and obesity-associated diseases in adipose tissue (By similarity).

Cellular Location Cytoplasm.

Tissue Location Detected only in peripheral blood leukocytes, predominantly in eosinophils and granulocytes, and at lower levels in monocytes.

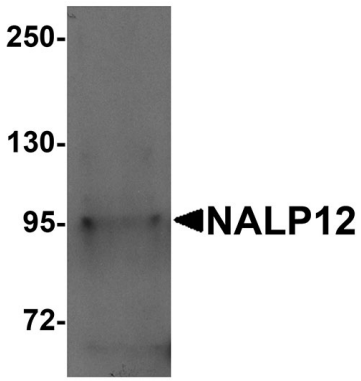
Background

NALP12 Antibody: NALP proteins are cytoplasmic proteins that form a subfamily within the larger CATERPILLER family and are thought to play a crucial role in cell proliferation and reproduction. Like all other NALP family members, NALP12, also known as Monarch-1, has a C-terminal leucine-rich repeat (LRR) region, an N-terminal Pyrin domain (PYD) followed by a NACHT domain, and a NACHT-associated domain. NALP12 is thought to act as an attenuating factor of inflammation by suppressing inflammatory responses such as NF-κB activation by TLR-signaling molecules MyD88, IRAK-1, TRAF6 and RIPK1 in activated monocytes. Recent evidence suggests that mutations in NALP12 result in hereditary periodic fever syndromes.

References

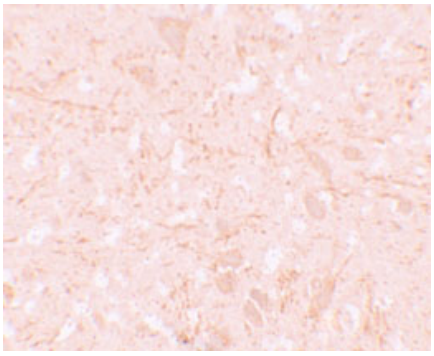
Tschopp J, Martinon F, and Burns K. NALPs: a novel protein family involved in inflammation. Nat. Rev. Mol. Cell Biol.2003; 4:95-104.
Tian X, Pascal G, and Monget P. Evolution and functional divergence of NLRP genes in mammalian reproductive system. BMC Evol. Biol.2009; 9:202.
Williams KL, Lich JD, Duncan JA, et al. The CATERPILLER protein Monarch-1 is an antagonist of toll-like receptor- , tumor necrosis factor a-, and Mycobacterium tuberculosis-induced pro-inflammatory signals. J. Biol. Chem.2005; 48:39914-24.
Jeru I, Duquesnoy P, Fernandes-Alnemri T, et al. Mutations in NALP12 cause hereditary periodic fever syndromes. Proc. Natl. Acad. Sci. USA2008; 105:1614-9.

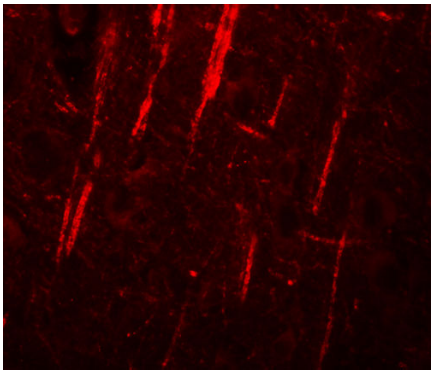
Images



Western blot analysis of NALP12 in human brain tissue lysate with NALP12 antibody at 1 µg/mL.

Immunohistochemistry of NALP12 in human brain tissue with NALP12 antibody at 5 µg/mL.





Immunofluorescence of NALP12 in human brain tissue with NALP12 antibody at 20 µg/mL.