

**NALP12 Antibody**  
Catalog # ASC11200**Specification****NALP12 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">P59046</a>
Other Accession	<a href="#">NP_653288</a> , <a href="#">21955154</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	NALP12 antibody can be used for detection of NALP12 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.

**NALP12 Antibody - Additional Information**

Gene ID	91662
Target/Specificity	NLRP12;

**Reconstitution & Storage**

NALP12 antibody can be stored at 4°C for three months and -20°C, 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.

**NALP12 Antibody - Protein Information**

**Name** NLRP12

**Synonyms** NALP12, PYPAF7, RNO

**Function**

Plays an essential role as an potent mitigator of inflammation (PubMed: [30559449](http://www.uniprot.org/citations/30559449)). Primarily expressed in dendritic cells and macrophages, inhibits both canonical and non-canonical NF-kappa-B and ERK activation pathways (PubMed: [15489334](http://www.uniprot.org/citations/15489334), PubMed: [17947705](http://www.uniprot.org/citations/17947705)). Functions as a negative regulator of NOD2 by targeting it to degradation via the proteasome pathway (PubMed: [30559449](http://www.uniprot.org/citations/30559449)). In turn, promotes bacterial tolerance (PubMed: [30559449](http://www.uniprot.org/citations/30559449)).

[30559449](http://www.uniprot.org/citations/30559449)). Inhibits also 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](http://www.uniprot.org/citations/30902577)). Acts also as a negative regulator of inflammatory response to mitigate obesity and obesity-associated diseases in adipose tissue (By similarity).

#### Cellular Location

Cytoplasm.

#### Tissue Location

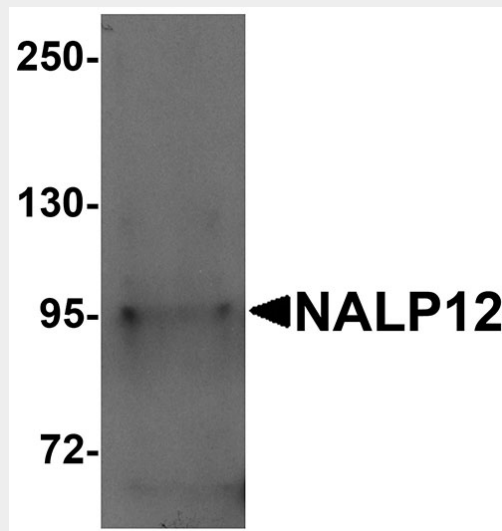
Detected only in peripheral blood leukocytes, predominantly in eosinophils and granulocytes, and at lower levels in monocytes.

#### NALP12 Antibody - Protocols

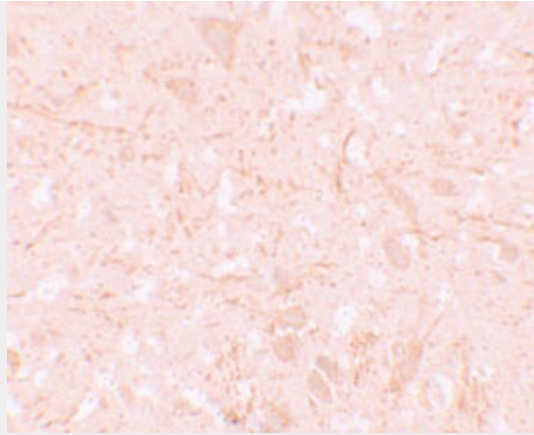
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

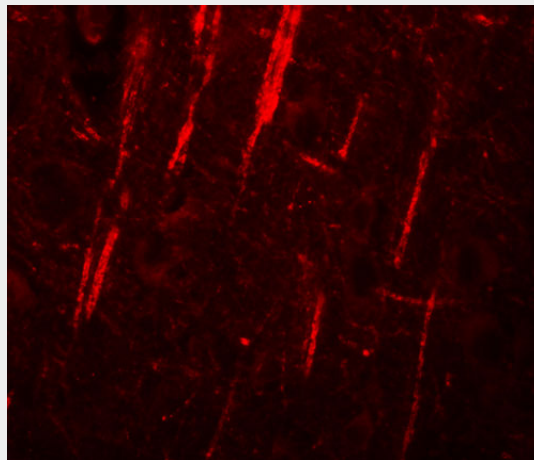
#### NALP12 Antibody - Images



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.

### **NALP12 Antibody - 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- $\kappa$ B 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.

### **NALP12 Antibody - 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  $\alpha$ -, 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. USA*2008; 105:1614-9.