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NALP10 Antibody

Catalog # ASC11198

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q86W26
Other Accession	NP_789791, 28827807
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	75032
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NALP10 antibody can be used for detection of NALP10 by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	338322
Other Names	NACHT, LRR and PYD domains-containing protein 10, Nucleotide-binding oligomerization domain protein 8, NLRP10, NALP10, NOD8, PYNOD
Target/Specificity	NLRP10;
Reconstitution & Storage	NALP10 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	NALP10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NLRP10
Synonyms	NALP10, NOD8, PYNOD
Function	Inhibits autoprocessing of CASP1, CASP1-dependent IL1B secretion, PYCARD aggregation and PYCARD-mediated apoptosis but not apoptosis induced by FAS or BID (PubMed:15096476). Displays anti- inflammatory activity (PubMed:20393137). Required for immunity against C.albicans infection (By similarity). Involved in the innate immune response by contributing to pro-inflammatory cytokine release in response to invasive bacterial infection (PubMed:22672233). Contributes to T-cell-mediated inflammatory responses

	in the skin (By similarity). Plays a role in protection against periodontitis through its involvement in induction of IL1A via ERK activation in oral epithelial cells infected with periodontal pathogens (PubMed:28766990). Exhibits both ATPase and GTPase activities (PubMed:23861819).
Cellular Location	Cytoplasm. Cell membrane; Peripheral membrane protein. Note=Cytoplasmic protein which is recruited to the cell membrane by NOD1 following invasive bacterial infection
Tissue Location	Highly expressed in basal and suprabasal epidermal cell layers with lower levels in dermal fibroblast cells (at protein level) (PubMed:22672233). Widely expressed with highest levels in heart, brain and skeletal muscle (PubMed:15096476). Also expressed in liver, colon, dermis and epidermis (PubMed:15096476). Little expression detected in myeloid cells or peripheral blood mononuclear cells (PubMed:15096476).

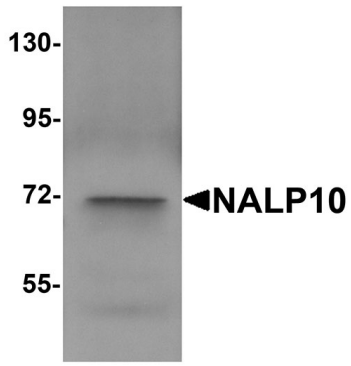
Background

NALP10 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, NALP10 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. It was initially identified as PYNOD, an Apaf-1-like protein that binds to ASC, caspase-1 and IL-1β, inhibiting the autoprocessing of caspase-1, caspase-1-mediated IL-1β processing, and ASC aggregation. NALP10 is thus a potent regulator of apoptosis and inflammation.

References

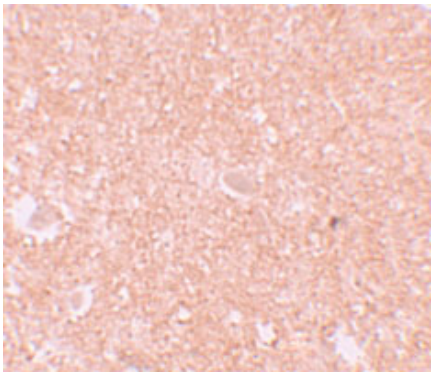
Tschopp J, Martinon F, and Burns K. NALPs: a novel protein family involved in inflammation. Nat. Rev. Mol. Cell Biol.2003; 4:95-104.
Tian X, Pascal G, and Monget P. Evolution and functional divergence of NLRP genes in mammalian reproductive system. BMC Evol. Biol.2009; 9:202.
Wang Y, Hasegawa M, Imamura R, et al. PYNOD,a novel Apaf-1/CED4-like protein is an inhibitor of ASC and caspase-1. Int. Immunol.2004; 16:777-86.
Imamura R, Wang Y, Kinoshita T, et al. Anti-inflammatory activity of PYNOD and its mechanism in humans and mice. J. Immunol.2010; 184:5874-84.

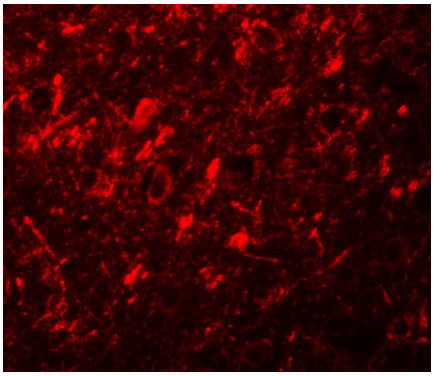
Images



Western blot analysis of NALP10 in human brain tissue lysate with NALP10 antibody at 1 µg/mL.

Immunohistochemistry of NALP10 in human brain tissue with NALP10 antibody at 10 µg/mL.





Immunofluorescence of NALP10 in human brain tissue with NALP10 antibody at 20 µg/mL.

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