NLRP1 polyclonal antibody

Catalog: BS67778 Host: Rabbit Reactivity: Human, Mouse, Rat

BackGround:

NALP1 (DEFCAP/NAC/CARD7) is an NLR (Nod-like receptor) family member that has been implicated in the regulation of apoptosis and inflammatory responses. Structurally, NALP contains an amino-terminal PYRIN domain, followed by a nucleotide-binding site (NBS), a leucine-rich repeat region (LRR), and a carboxy-terminal CARD domain. NALP1 interacts strongly with caspase-2 and weakly with caspase-9, and induces apoptosis when overexpressed. Similar to a related Ced-4 family member Apaf-1, it was also shown to be involved in cytochrome c-dependent caspase activation. It has also been shown to be part of the "inflammasome" comprised of caspase-1, caspase-5, and Pycard/ASC, which is critical in the processing of pro-inflammatory cytokines like IL-1β. Two major isoforms were identified for NALP1, which differ in a 44 amino acid region within the LRR. In addition, like NALP3, a short NALP1 isoform lacking the LRR (NALP1s) likely exists. Polymorphisms in NALP1 have been associated with autoimmune diseases and susceptibility to toxins.

NALP1 is autoproteolytically processed into a large N-terminal and a small C-terminal fragment, which are non-covalently associated. Upon activation, the C-terminal is released and forms inflammasomes with other proteins.

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 165 kDa

Swiss-Prot:

Q9C000

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/ICC (1/50 - 1/200)

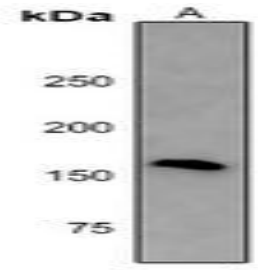
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

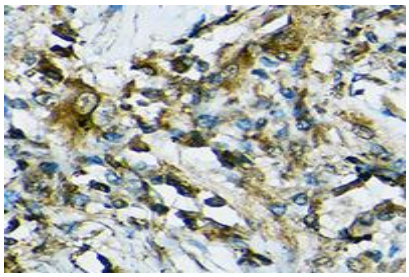
Specificity:

Recognizes endogenous levels of NLRP1 protein.

DATA:



Western blot analysis of NLRP1 expression in SHSY5Y (A) whole cell lysates.



Immunohistochemical analysis of NLRP1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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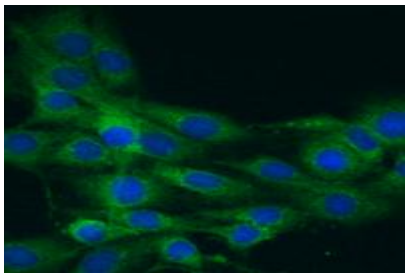

Immunofluorescent analysis of NLRP1 staining in PC12 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 ℃ in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

Note:

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

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