

NLRP3 Antibody / NALP3 (R30750)

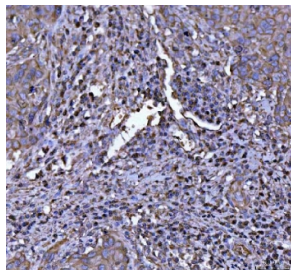
Catalog No.	Formulation	Size
R30750	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug



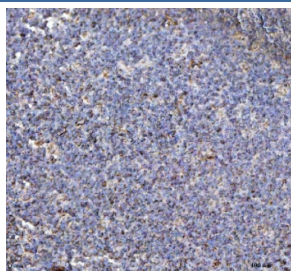
Citations (1)

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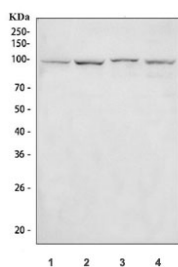
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q96P20
Localization	Nuclear, cytoplasmic, secreted
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Flow Cytometry : 1-3ug/10 ⁶ cells
Limitations	This NLRP3 antibody is available for research use only.



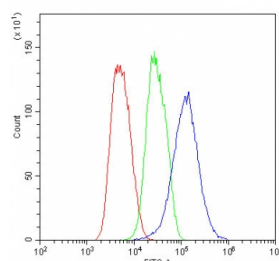
IHC staining of FFPE human squamous cell cervical carcinoma tissue with NLRP3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human tonsil tissue with NLRP3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human ThP-1, 2) rat PC-12, 3) mouse spleen and 4) mouse RAW264.7 cell lysate with NLRP3 antibody. Predicted molecular weight ~118 kDa.



Flow cytometry testing of fixed and permeabilized human ThP-1 cells with NLRP3 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= NLRP3 antibody.

Description

NOD-like receptor family pyrin domain containing 3, also known as CIAS1, CRYOPYRIN, NALP3 or PYPAF1, is a protein that in humans is encoded by the NLRP3 gene. The gene encodes a pyrin-like protein expressed predominantly in peripheral blood leukocytes. NLRP3 interacts with apoptosis-associated speck-like protein containing a CARD(ASC). The encoded protein may play a role in the regulation of inflammation and apoptosis. Mutation of the proteins nucleotide-binding domain reduced ATP binding, Caspase-1 activation, IL-1b production, cell death, macromolecular complex formation, self-association, and association with ASC. Consistent with an essential role for NLRP3 inflammasomes in antifungal immunity, Gross et al. showed that deficient mice are hypersusceptible to *C. albicans* infection. Activation of the NLRP3 inflammasome in response to virus or to RNA was dependent upon lysosomal maturation and reactive oxygen species production in human cells. The NLRP3 inflammasome senses obesity-associated danger signals and contributes to obesity-induced inflammation and insulin resistance.

Application Notes

The stated application concentrations are suggested starting points. Titration of the NLRP3 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the N-terminus of human NLRP3 (RYLEDLEDVDLKKFKMHLED) was used as the immunogen for this NLRP3 antibody.

Storage

After reconstitution, the NLRP3 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.

