

For Research Use Only

# NLRP3 Polyclonal antibody

Catalog Number: 19771-1-AP

Featured Product

575 Publications



## Basic Information

### Catalog Number:

19771-1-AP

### Size:

150ul, Concentration: 400 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### GenBank Accession Number:

NM\_001127461

### GeneID (NCBI):

114548

### UNIPROT ID:

Q96P20

### Full Name:

NLR family, pyrin domain containing 3

### Calculated MW:

118 kDa

### Observed MW:

110 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:500-1:2000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP, ELISA, Cell treatment

### Species Specificity:

human

### Cited Species:

human, pig, bovine, goat

### Positive Controls:

WB: THP-1 cells, Raji cells, LPS treated THP-1 cells

IP: THP-1 cells,

IHC: human kidney tissue,

IF/ICC: HepG2 cells,

FC (Intra): THP-1 cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

NALP3, also named C1orf7, CIAS1, and PYPAF1, belongs to the NLRP family. NLRP3, a key and eponymous component of the NLRP3 inflammasome, plays a crucial role in innate immunity and inflammation. NALP3 may function as an inducer of apoptosis. It interacts selectively with ASC and this complex may function as an upstream activator of NF-kappa-B signaling. NALP3 inhibits TNF-alpha-induced activation and nuclear translocation of RELA/NF-KB p65. Also inhibits transcriptional activity of RELA. NALP3 activates caspase-1 in response to a number of triggers including bacterial or viral infection which leads to processing and release of IL1B and IL18. Defects in NLRP3 are the cause of familial cold autoinflammatory syndrome type 1 (FCAS1) which is also known as familial cold urticaria. Defects in NLRP3 are a cause of Muckle-Wells syndrome (MWS) which is urticaria-deafness-amyloidosis syndrome. Defects in NLRP3 are the cause of chronic infantile neurologic cutaneous and articular syndrome (CINCA) which is also known as neonatal onset multisystem inflammatory disease (NOMID). The antibody recognizes the C-term of NALP3.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yang Liu	36175851	BMC Mol Cell Biol	IF
Lin-Tao Xu	34601084	J Ethnopharmacol	WB
DANDAN FENG	34650637	Exp Ther Med	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

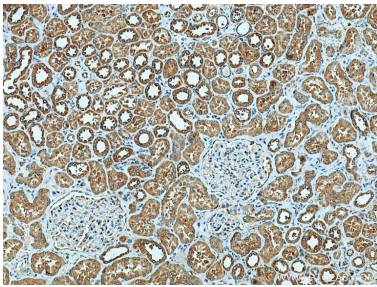
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

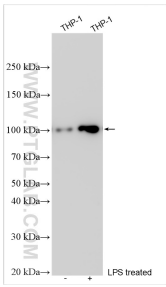
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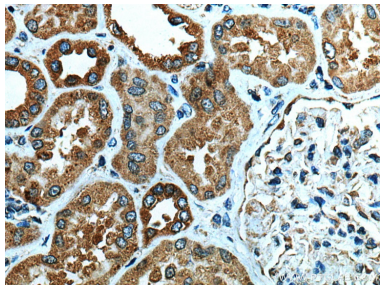
Selected Validation Data



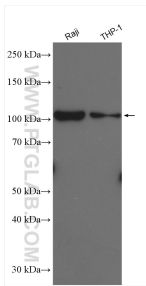
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 19771-1-AP (NLRP3 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



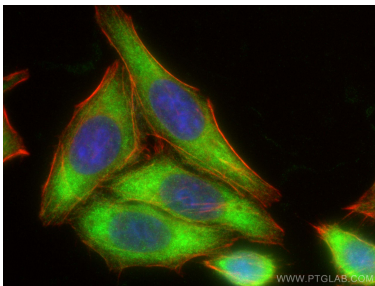
Various lysates were subjected to SDS PAGE followed by western blot with 19771-1-AP (NLRP3 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



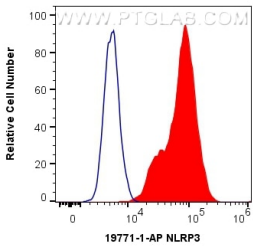
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 19771-1-AP (NLRP3 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



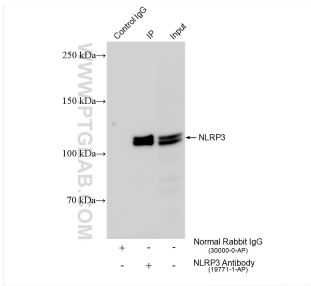
Various lysates were subjected to SDS PAGE followed by western blot with 19771-1-AP (NLRP3 antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



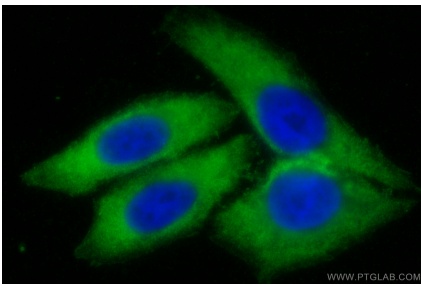
Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using NLRP3 antibody (19771-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



1X10<sup>6</sup> THP-1 cells were intracellularly stained with 0.4 ug Anti-Human NLRP3 (19771-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



IP result of anti-NLRP3 (IP:19771-1-AP, 4ug; Detection:19771-1-AP 1:1000) with THP-1 cells lysate 2480 ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using NLRP3 antibody (19771-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).