

For Research Use Only

NLRP3 Polyclonal antibody

Catalog Number: 30109-1-AP

16 Publications



Basic Information

Catalog Number:

30109-1-AP

Size:

150ul, Concentration: 800 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG32515

GenBank Accession Number:

NM_145827

GeneID (NCBI):

216799

UNIPROT ID:

Q8R4B8

Full Name:

NLR family, pyrin domain containing 3

Calculated MW:

118kd

Observed MW:

108-120 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:5000

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

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF, CoIP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

Positive Controls:

WB : J774A.1 cells, rat spleen tissue, RAW 264.7 cells, LPS treated RAW 264.7 cells

IP : RAW 264.7 cells,

IF/ICC : HepG2 cells,

Background Information

NLRP3, also named as NALP3, CIASI, C1orf7, PYPAF1, Cryopyrin and MIM606416, belongs to NLR family. NLRP3, a key and eponymous component of the NLRP3 inflammasome, plays a crucial role in innate immunity and inflammation. NLRP3 inflammasome is expressed in immune cells, including monocytes, macrophages, and dendritic cells. When the NLRP3 inflammasome is activated, the PYD domain of NLRP3 mediates recruitment of an adaptor protein called ASC and the effector protein procaspase-1 to form an NLRP3 inflammasome complex that can cleave inactive procaspase-1 to form active caspase-1. And then the active caspase-1 results in secretion of interleukin (IL)-18 and IL-1 β . Activation of the NLRP3 inflammasome is also required for HMGB1 secretion. Inflammasomes can also induce pyroptosis, an inflammatory form of programmed cell death (PMID:27669650). NLRP3 has some isoforms with the MW of 106-118 kDa and 75-83 kDa. An additional 130-135 kDa band could also be detected (PMID: 17164409; PMID: 34680443; PMID: 35585627). This antibody is specific for mouse NLRP3.

Notable Publications

Author	Pubmed ID	Journal	Application
Fei Wang	39786506	Cardiovasc Drugs Ther	WB
Yudong Liu	39730972	Inflammation	WB
Yong Liu	39719209	Exp Neurol	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

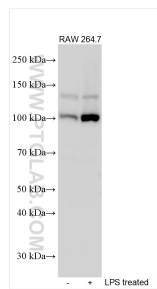
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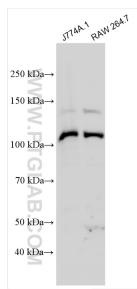
E: proteintech@ptglab.com
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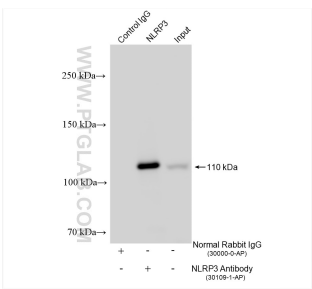
Selected Validation Data



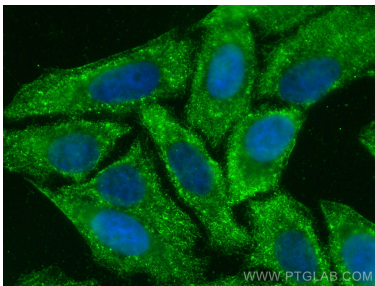
Non-treated RAW 264.7 cells and LPS-treated RAW 264.7 cells lysates were subjected to SDS PAGE followed by western blot with 30109-1-AP (Nlrp3 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 30109-1-AP (Nlrp3 antibody) at dilution of 1:2500 incubated at room temperature for 1.5 hours.



IP result of anti-Nlrp3 (IP:30109-1-AP, 4ug; Detection:30109-1-AP 1:4000) with RAW 264.7 cells lysate 1200 ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Nlrp3 antibody (30109-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).