

For Research Use Only

NLRP3 Polyclonal antibody

Catalog Number: 27458-1-AP

75 Publications



Basic Information

Catalog Number:

27458-1-AP

Size:

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

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG26272

GenBank Accession Number:

NM_001079821

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 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF, CoIP, ChIP

Species Specificity:

human

Cited Species:

human, pig

Positive Controls:

WB: Jurkat cells, THP-1 cells

IP: THP-1 cells,

IHC: human breast cancer tissue,

IF/ICC: HepG2 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

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.

Notable Publications

Author	Pubmed ID	Journal	Application
Weiyang He	29870680	FASEB J	WB, IF
Hao Wu	36587556	Biomed Pharmacother	WB
Xianyang Wang	36589463	Front Physiol	IHC

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

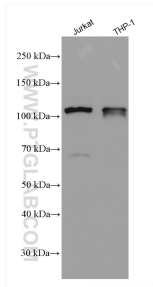
For technical support and original validation data for this product please contact:

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

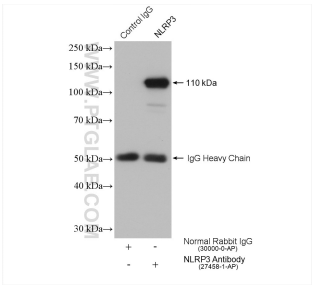
E: proteintech@ptglab.com
W: ptglab.com

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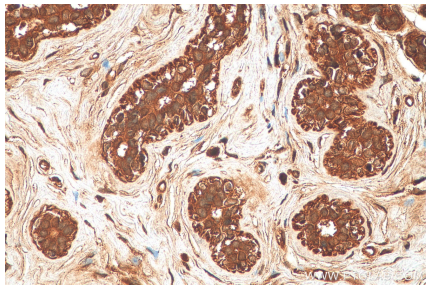
Selected Validation Data



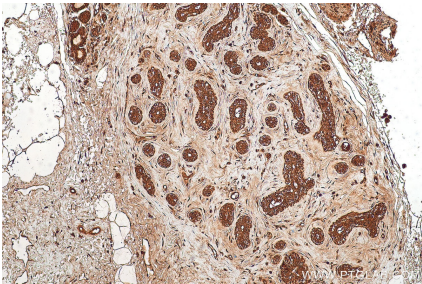
Various lysates were subjected to SDS PAGE followed by western blot with 27458-1-AP (NLRP3 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



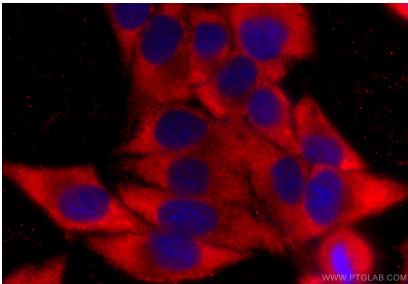
IP result of anti-NLRP3 (IP:27458-1-AP, 4ug; Detection:27458-1-AP 1:800) with THP-1 cells lysate 1520 ug.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 27458-1-AP (NLRP3 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 27458-1-AP (NLRP3 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using NLRP3 antibody (27458-1-AP) at dilution of 1:400 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4).