

For Research Use Only

NLRP3 Polyclonal antibody

Catalog Number: 27458-1-AP **37 Publications**



Basic Information

Catalog Number: 27458-1-AP	GenBank Accession Number: NM_001079821	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 800 µg/ml by Nanodrop;	GeneID (NCBI): 114548	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
Source: Rabbit	UNIPROT ID: Q96P20	
Isotype: IgG	Full Name: NLR family, pyrin domain containing 3	
Immunogen Catalog Number: AG26272	Calculated MW: 118 kDa	
	Observed MW: 110 kDa	

Applications

Tested Applications: WB, IP, IF, IHC, ELISA	Positive Controls: WB : Jurkat cells, THP-1 cells IP : THP-1 cells, IHC : human breast cancer tissue,
Cited Applications: WB, IF, IHC	
Species Specificity: human	
Cited Species: human, pig	
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

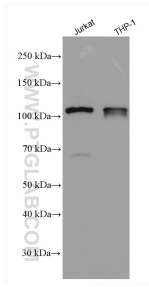
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

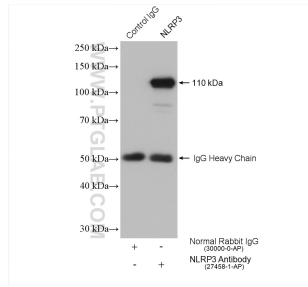
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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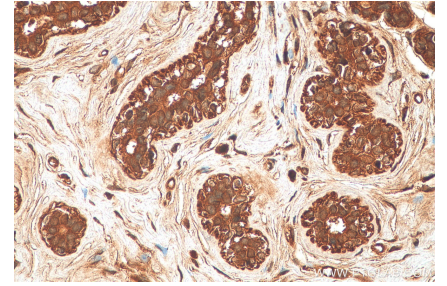
Selected Validation Data



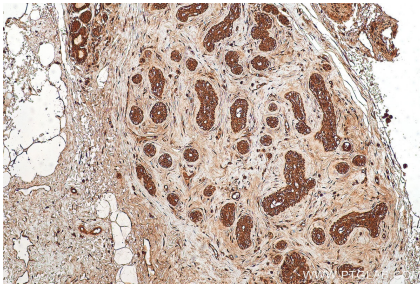
Various lysates were subjected to SDS PAGE followed by western blot with 27458-1-AP (NLRP3 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



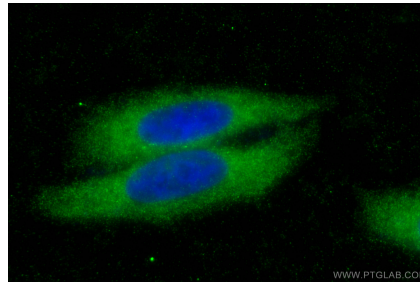
IP result of anti-NLRP3 (IP:27458-1-AP, 4ug; Detection:27458-1-AP 1:800) with THP-1 cells lysate 1520 ug.



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® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).