For Research Use Only

NLRP3 Monoclonal antibody

Catalog Number:68102-1-Ig Featured Product 111 Publications

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Basic Information

Catalog Number:
68102-1-Ig

Size:
150ul , Concentration: 2000 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG2a

Immunogen Catalog Number:
AG26289

GenBank Accession Number:
NM_001079821

GeneID (NCBI):
114548

Full Name:
NLR family, pyrin domain containing 3

Calculated MW:
118 kDa

Observed MW:
110 kDa

Purification Method:
Protein A purification

CloneNo.:
3H1A7

Recommended Dilutions:
WB 1:2000-1:10000
IHC 1:50-1:500

Applications

Tested Applications:
WB, IHC, ELISA

Cited Applications:
WB, IHC, IF, CoIP

Species Specificity:
human

Cited Species:
human, chicken, bovine

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

Positive Controls:

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

IHC : human kidney tissue,

Background Information

NALP3, also named as 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 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 also known as neonatal onset multisystem inflammatory disease (NOMID). NLRP3 has some isoforms with the MW of 106-118 kDa and 75-83 kDa(PMID: 17164409, 34680443).

Notable Publications

Author	Pubmed ID	Journal	Application
Qiuyuan Liu	35907203	Inflamm Bowel Dis	WB
Lu Bai	35910846	Oxid Med Cell Longev	WB
Zhengyuan Huang	39987632	Int Immunopharmacol	WB

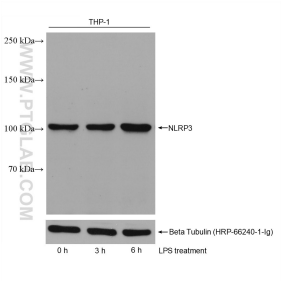
Storage

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

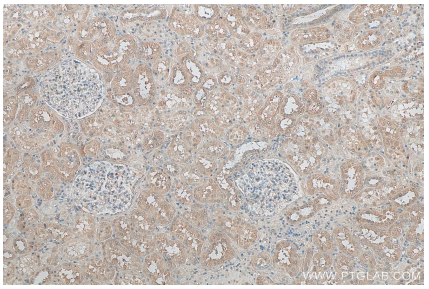
*** 20ul sizes contain 0.1% BSA

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

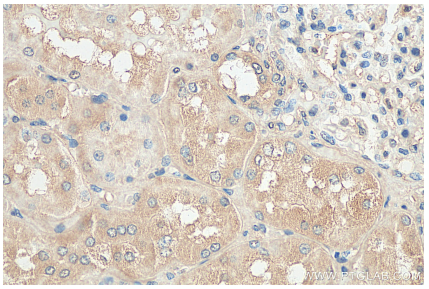
Selected Validation Data



Non-treated THP-1 cells and LPS treated THP-1 cells were subjected to SDS PAGE followed by western blot with 68102-1-Ig (NLRP3 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin antibody as loading control.



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 68102-1-Ig (NLRP3 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 68102-1-Ig (NLRP3 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).