

For Research Use Only

# NLRP3 Monoclonal antibody, PBS Only (Capture)

Catalog Number: 68102-1-PBS

Featured Product



## Basic Information

<b>Catalog Number:</b> 68102-1-PBS	<b>GenBank Accession Number:</b> NM_001079821	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 114548	<b>CloneNo.:</b> 3H1A7
<b>Source:</b> Mouse	<b>Full Name:</b> NLR family, pyrin domain containing 3	
<b>Isotype:</b> IgG2a	<b>Calculated MW:</b> 118 kDa	
<b>Immunogen Catalog Number:</b> AG26289	<b>Observed MW:</b> 110 kDa	

## Applications

**Tested Applications:**  
WB, IHC, Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human

## Product Information

68102-1-PBS targets NLRP3 as part of a matched antibody pair:

MP50203-1: 68102-1-PBS capture and 68102-2-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

Unconjugated mouse monoclonal antibody pair in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## 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).

## Storage

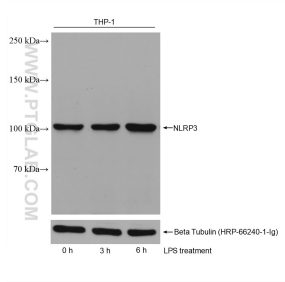
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS only, pH7.3

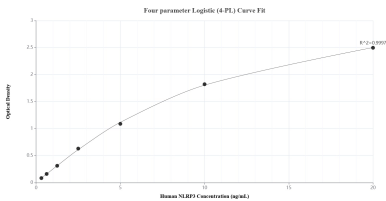
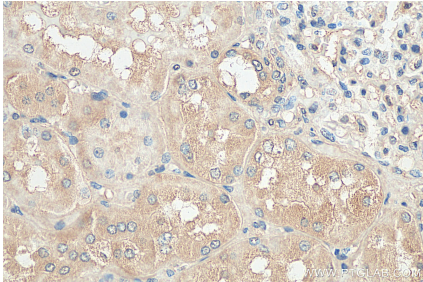
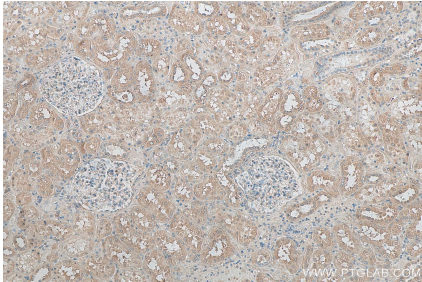
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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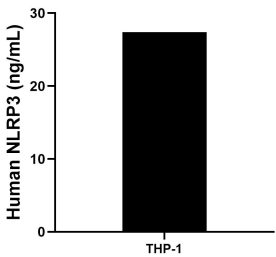
Selected Validation Data



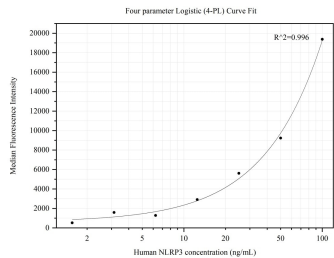
Non-treated THP-1 cells and LPS treated THP-1 cells were subjected to SDS PAGE followed by western blot with 68102-1-Ig (NLRP3 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin antibody as loading control. This data was developed using the same antibody clone with 68102-1-PBS in a different storage buffer formulation.



Sandwich ELISA standard curve of MP50203-1, Human NLRP3 Monoclonal Matched Antibody Pair - PBS only. 68102-1-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag26289. 68102-2-PBS was HRP conjugated as the detection antibody. Range: 0.313-20 ng/mL



The mean NLRP3 concentration was determined to be 27.37 ng/mL in THP-1 cell extract based on a 1.50 mg/mL extract load.



Cytometric bead array standard curve of MP50203-1, NLRP3 Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 68102-1-PBS. Detection antibody: 68102-2-PBS. Standard:Ag26289. Range: 1.563-100 ng/mL