

Anti-NLRP3 Antibody

ER1706-72



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 118 kDa

Description: NLR family pyrin domain containing 3 (NLRP3) (previously known as NACHT, LRR and PYD domains-containing protein 3 [NALP3] and cryopyrin), is a protein that in humans is encoded by the NLRP3 gene located on the long arm of chromosome 1. NLRP3 is expressed predominantly in macrophages and as a component of the inflammasome, products of damaged cells such as extracellular ATP and crystalline uric acid. Activated NLRP3 in turn triggers an immune response. Mutations in the NLRP3 gene are associated with a number of organ specific autoimmune diseases. Cryopyrin interacts selectively with apoptosis associated specklike protein containing a CARD domain (ASC). This complex may function as an upstream activator of NFκB signaling and caspase-1 activation. The complex also inhibits TNFα induced activation and nuclear translocation of RelA/NFκB p65. Mutations in Cryopyrin and Pyrin proteins are responsible for several autoinflammatory disorders in humans, including familial cold autoinflammatory syndrome (FCAS), Muckle-Wells syndrome (MWS) and chronic infantile neurologic cutaneous and articular syndrome (CINCA).

Immunogen: Synthetic peptide within Human NLRP3 aa 987-1,036 / 1,036.

Positive control: LOVO cell lysate, A431, HepG2, LOVO, human liver cancer tissue, human colon cancer tissue, human placenta tissue, mouse brain tissue, mouse kidney tissue, Jurkat.

Subcellular location: Nucleus. Cytoplasm. Secreted.

Database links: SwissProt: Q96P20 Human | Q8R4B8 Mouse

Recommended Dilutions:

WB	1:500-1:2,000
IF-Cell	1:500-1:2,000
IHC-P	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

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Images

Fig1: Western blot analysis of NLRP3 on LOVO cell lysates with Rabbit anti-NLRP3 antibody (ER1706-72) at 1/500 dilution.

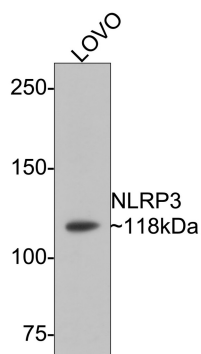
Lysates/proteins at 30 µg/Lane.

Predicted band size: 118 kDa

Observed band size: 118 kDa

Exposure time: 1 minute;

6% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER1706-72) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

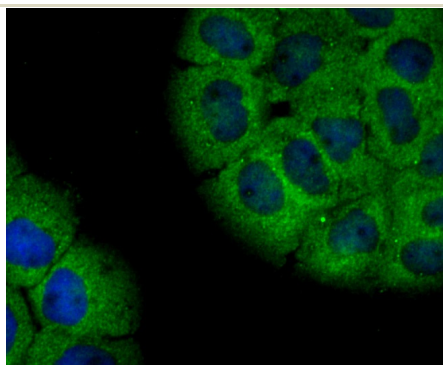


Fig2: ICC staining NLRP3 in A431 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

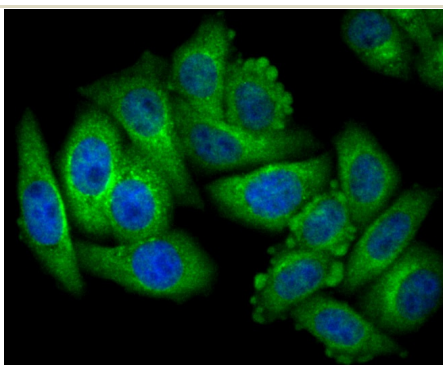


Fig3: ICC staining NLRP3 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

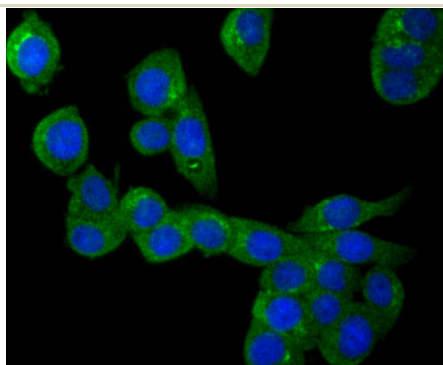


Fig4: ICC staining NLRP3 in LOVO cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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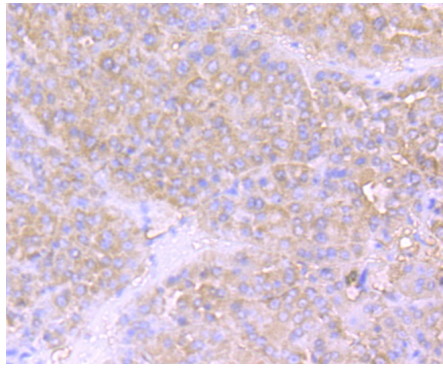


Fig5: Immunohistochemical analysis of paraffin-embedded human liver cancer tissue using anti-NLRP3 antibody. Counter stained with hematoxylin.

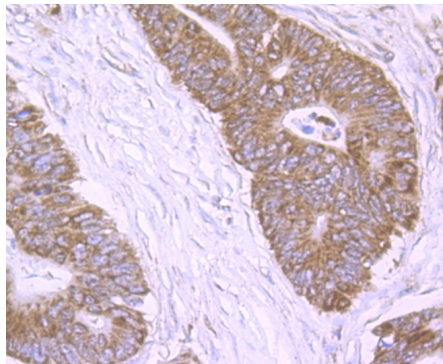


Fig6: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-NLRP3 antibody. Counter stained with hematoxylin.

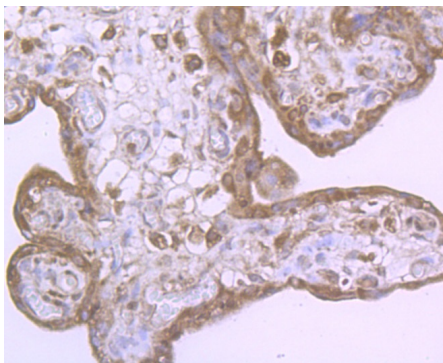


Fig7: Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-NLRP3 antibody. Counter stained with hematoxylin.

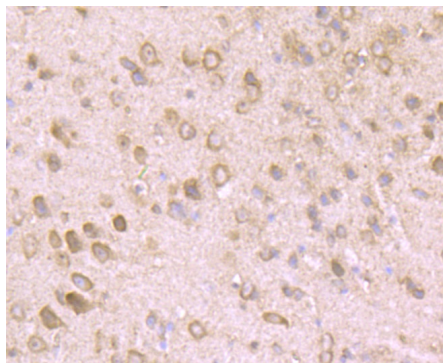


Fig8: Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-NLRP3 antibody. Counter stained with hematoxylin.

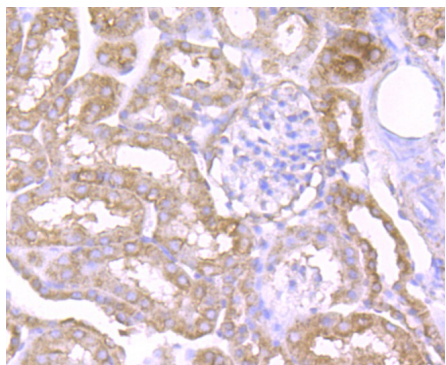


Fig9: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-NLRP3 antibody. Counter stained with hematoxylin.

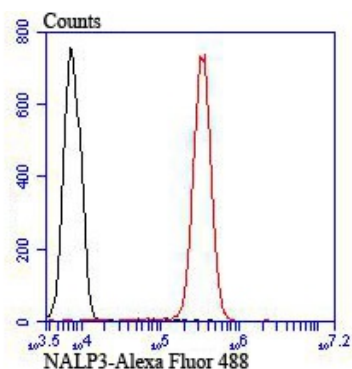


Fig10: Flow cytometric analysis of Jurkat cells with NLRP3 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Biasizzo M et al. Interplay Between NLRP3 Inflammasome and Autophagy. *Front Immunol.* 2020 Oct
2. Seoane PI et al. The NLRP3-inflammasome as a sensor of organelle dysfunction. *J Cell Biol.* 2020 Dec

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