

Anti-Gasdermin D (N terminal) Antibody [PD00-18]

HA721144



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	Predicted band size: 53/30 kDa
Clone number:	PD00-18

Description: Gasdermin-D, N-terminal: Promotes pyroptosis in response to microbial infection and danger signals. Produced by the cleavage of gasdermin-D by inflammatory caspases CASP1 or CASP4 in response to canonical, as well as non-canonical (such as cytosolic LPS) inflammasome activators. After cleavage, moves to the plasma membrane where it strongly binds to inner leaflet lipids, including monophosphorylated phosphatidylinositols, such as phosphatidylinositol 4-phosphate, bisphosphorylated phosphatidylinositols, such as phosphatidylinositol (4,5)-bisphosphate, as well as phosphatidylinositol (3,4,5)-bisphosphate, and more weakly to phosphatidic acid and phosphatidylserine. Homooligomerizes within the membrane and forms pores of 10 - 15 nanometers (nm) of inner diameter, possibly allowing the release of mature IL1B and triggering pyroptosis. Exhibits bactericidal activity. Gasdermin-D, N-terminal released from pyroptotic cells into the extracellular milieu rapidly binds to and kills both Gram-negative and Gram-positive bacteria, without harming neighboring mammalian cells, as it does not disrupt the plasma membrane from the outside due to lipid-binding specificity.

Immunogen: Recombinant protein within Gasdermin D full length protein.

Positive control: SiHa cell lysate, Jurkat cell lysate, THP-1 cell lysate, PC-3M cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, L6 cell lysate, THP-1 cell lysate treated with PMA for 17.5 hours then treated with LPS for 6 hours, mouse intestine tissue.

Subcellular location: Cell membrane, Secreted.

Database links: SwissProt: P57764 Human | Q9D8T2 Mouse
Entrez Gene: 513939 Rat

Recommended Dilutions:

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

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

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

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

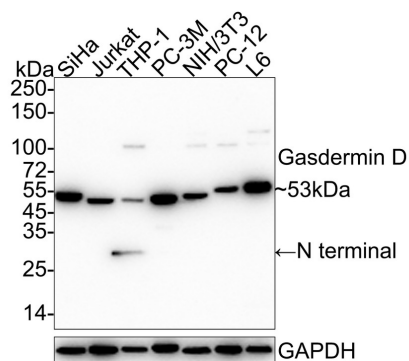
Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物
HUABIO
www.huabio.cn

Images

Fig1: Western blot analysis of Gasdermin D (N terminal) on different lysates with Rabbit anti-Gasdermin D (N terminal) antibody (HA721144) at 1/1,000 dilution.



Lane 1: SiHa cell lysate
 Lane 2: Jurkat cell lysate
 Lane 3: THP-1 cell lysate
 Lane 4: PC-3M cell lysate
 Lane 5: NIH/3T3 cell lysate
 Lane 6: PC-12 cell lysate
 Lane 7: L6 cell lysate

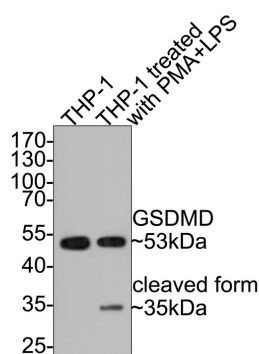
Lysates/proteins at 20 µg/Lane.

Predicted band size: 53/30 kDa
 Observed band size: 53/30 kDa

Exposure time: 43 seconds; ECL: K1801;
 4-20% 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 (HA721144) at 1/1,000 dilution was used in 5% NFDm/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of Gasdermin D (N terminal) on different lysates with Rabbit anti-Gasdermin D (N terminal) antibody (HA721144) at 1/500 dilution.



Lane 1: THP-1 cell lysate
 Lane 2: THP-1 cell lysate treated with PMA for 17.5 hours then treated with LPS for 6 hours

Lysates/proteins at 10 µg/Lane.

Predicted band size: 53 kDa
 Observed band size: 53/35 kDa

Exposure time: 30 seconds;
 10% 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 (HA721144) 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.

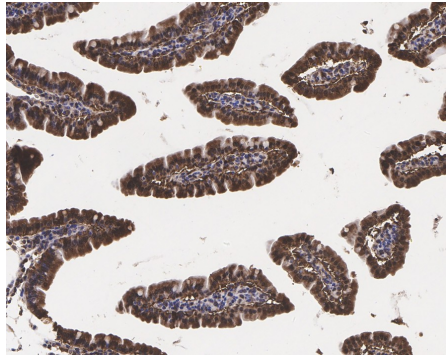


Fig3: Immunohistochemical analysis of paraffin-embedded mouse intestine tissue with Rabbit anti-Gasdermin D (N terminal) antibody (HA721144) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA721144) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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

Background References

1. Sborgi L. et. al. GSDMD membrane pore formation constitutes the mechanism of pyroptotic cell death. *EMBO J.* 35:1766-1778(2016).
2. Ding J. et. al. Pore-forming activity and structural autoinhibition of the gasdermin family. *Nature* 535:111-116(2016).

Hangzhou Huan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物
HUABIO
www.huabio.cn