[KO Validated] Anti-GSDMD Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R020036

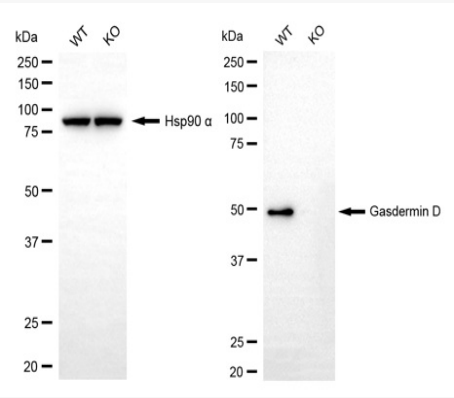
Product Information

Application	WB, IHC-P/IF (Tissue-P)
Reactivity	Human
Dilution	WB 1:500~1:2,500; IHC-P 1:50~1:100
Host	Rabbit
Clonality	Monoclonal
Clone No.	34L45K62
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human GSDMD
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KO Validated] Anti-GSDMD Rabbit mAb [34L45K62] is for research use only and not for use in diagnostic or therapeutic procedures.

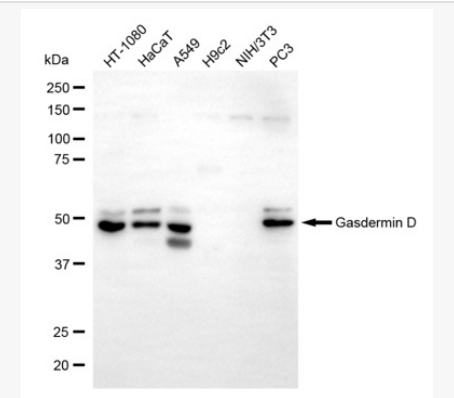
Protein Information

Synonyms	GSDMD; Gasdermin D; GSDMDC1; DF5L; Gasdermin Domain-Containing Protein 1; Gasdermin Domain Containing 1; Gasdermin-D; FLJ12150; DFNA5L; FKSG10.
Calculated MW	Calculated MW: 53 kDa; Observed MW: 50 kDa
Uniprot ID	P57764
Gene ID	79792
Background	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 (PubMed:26375003, PubMed:26375259, PubMed:27418190). 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 (PubMed:27281216). 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 (PubMed:27418190, PubMed:27281216). 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 (PubMed:27281216). Under cell culture conditions, also active against intracellular bacteria, such as Listeria monocytogenes . Strongly binds to bacterial and

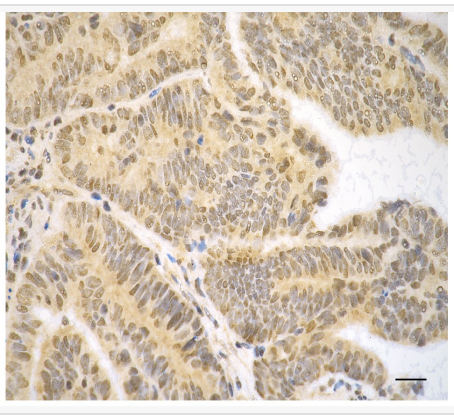
Validation Images



Western blotting analysis using gasdermin D antibody (R020036). Gasdermin D expression in wild type (WT) and gasdermin D (GSDMD) knockout (KO) HT-1080 cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with gasdermin D antibody (R020036, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using gasdermin D antibody (R020036). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with gasdermin D antibody (R020036, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Immunohistochemistry was performed on paraffin-embedded human endometrial carcinoma using gasdermin D antibody (R020036, 1:100). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.