

Rabbit anti-Human, Mouse GSDMD Polyclonal Antibody | anti-GSDMD antibody

GSDMD Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329381	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

GSDMD; Polyclonal Antibody; GSDMD Antibody; 1810036L03Rik; DF 5L; DF5L; DFNA 5L; DFNA5L; FKSG 10; FKSG10; FLJ12150; Gasdermin D; Gasdermin domain containing 1; Gasdermin domain containing protein 1; Gasdermin domain-containing protein 1; Gasdermin-D; GasderminD; GSDMD_HUMAN; GSDMDC 1; GSDMDC1; anti-GSDMD antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	GSDMD Antibody detects endogenous levels of total GSDMD. Tissue Specificity: Expressed in the suprabasal cells of esophagus, as well as in the isthmus/neck, pit, and gland of the stomach, suggesting preferential expression in differentiating cells.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-GSDMD antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human GSDMD.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Cleavage at Asp-275 by CASP1 (mature and uncleaved precursor forms) or CASP4 relieves autoinhibition and is sufficient to initiate pyroptosis. Cleavage at Asp-87 by CASP3.
Subunit Structure	In response to a canonical inflammasome stimulus, such as nigericin, recruited to NLRP3 inflammasome with similar kinetics to that of uncleaved CASP1 precursor. Although this recruitment is also observed in the absence of PYCARD, it is more efficient in its presence (By similarity). Gasdermin-D, N-terminal forms disulfide-linked homooligomers (16-mers) in a Ca (+2)-independent manner. Oligomerization occurs in the presence of membranes; cytosolic Gasdermin-D, N-terminal remains monomeric.
Similarity	Intramolecular interactions between N- and C-terminal domains may be important for autoinhibition in the absence of cleavage by inflammatory caspases CASP1 or CASP4. The intrinsic pyroptosis-inducing activity is carried by gasdermin-D, N-terminal, that is released upon cleavage by inflammatory caspases. Belongs to the gasdermin family.
Subcellular Location	Cytoplasm>Cytosol. Inflammasome. Note: In response to a canonical inflammasome stimulus, such as nigericin, recruited to NLRP3 inflammasome with similar kinetics to that of uncleaved CASP1 precursor. Cell membrane. Secreted. Note: Released in the extracellular milieu following pyroptosis.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



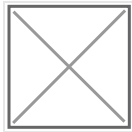
Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.



IF (Immunofluorescence)

Staining 3T3 by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(AF4013 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of extracts from Mouse heart, using GSDMD Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-GSDMD antibody

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. Under cell culture conditions, also active against intracellular bacteria, such as Listeria monocytogenes (By similarity). Strongly binds to bacterial and mitochondrial lipids, including cardiolipin. Does not bind to unphosphorylated phosphatidylinositol, phosphatidylethanolamine nor phosphatidylcholine.

NCBI AND UNIPROT INFORMATION

NCBI GI #	83320070
NCBI GeneID	79792
NCBI Accession #	NP_079012.3
NCBI GenBank Nucleotide #	NM_024736.6
UniProt Accession #	P57764; Q96Q98; D3DWJ9
Molecular Weight	52,801 Da
NCBI Official Full Name	gasdermin-D
NCBI Official Synonym Full Names	gasdermin D
NCBI Official Symbol	GSDMD
NCBI Official Synonym Symbols	DF5L; DFNA5L; FKSG10; GSDMDC1
NCBI Protein Information	gasdermin-D; gasdermin domain containing 1; gasdermin domain-containing protein 1
UniProt Protein Name	Gasdermin-D

UniProt Gene Name	GSDMD
UniProt Synonym Gene Names	DFNA5L; GSDMDC1
UniProt Entry Name	GSDMD_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/gsdmd-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-western-blot-elisa/329381>