

Gasdermin A Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 49	Source/Isotype: Rabbit	UniProt ID: #Q96QA5	Entrez-Gene Id: 284110
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Gasdermin A Antibody recognizes endogenous levels of total Gasdermin A protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly256 of human Gasdermin A protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The gasdermin family, which includes GSDMA, GSDMB, GSDMC, GSDMD, and GSDME, has been shown to play a role in inflammation and cell death. Gasdermin D has been reported to have a critical role as a downstream effector of pyroptosis (1,2). Pyroptosis is a lytic type of cell death triggered by inflammasomes, multiprotein complexes assembled in response to pathogen-associated molecular patterns (PAMPs) or danger-associated molecular patterns (DAMPs) that result in the activation of caspase-1 and subsequent cleavage of pro-inflammatory cytokines IL-1 β and IL-18 (3). Gasdermin D was identified by two independent groups as a substrate of inflammatory caspases, caspase-1 and caspase-11/4/5, producing two fragments: GSDMD-N and GSDMD-C. Cleavage results in release of an intramolecular inhibitory interaction between the N- and C-terminal domains, allowing the N-terminal fragment GSDMD-N to initiate pyroptosis through the formation of pores on the plasma membrane (4-7).

Gasdermin A (GSDMA) is preferentially expressed in the epithelium of the skin and gastrointestinal tract and is frequently suppressed in gastric cancer (8-10). Mice express three Gasdermin A genes termed *GSDMA1-3* (8). The role of Gasdermin A has been associated with cellular differentiation, apoptosis, pyroptosis, and autophagy (10-15). Expression of an N-terminal fragment of *GSDMA3*, but not the full-length protein, induces pyroptosis, but the mechanisms of any cleavage of *GSDMA3* are unknown (12). The most widely studied mouse form, *GSDMA3*, is expressed in mouse keratinocytes and is associated with skin differentiation and inflammation, and a dominant mutation has been found to play a causative role in alopecia (16,17).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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