#50928 Store at -20C

Cleaved Gasdermin D (Asp276) Antibody (Mouse Specific)

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	M	Endogenous	31	Rabbit	#Q9D8T2	69146

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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

Cleaved Gasdermin D (Asp276) Antibody (Mouse Specific) recognizes endogenous levels of amino-terminal fragment of Gasdermin D protein only when cleaved at Asp276.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp276 of mouse Gasdermin D protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Gasdermin D (GSDMD), a member of the gasdermin family that includes GSDMA, GSDMB, and GSDMC, 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-1β 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).

Background References

1. Kayagaki, N. et al. (2015) *Nature* 526, 666-71.
2. Shi, J. et al. (2015) *Nature* 526, 660-5.
3. Broz, P. and Dixit, V.M. (2016) *Nat Rev Immunol* 16, 407-20.
4. Aglietti, R.A. et al. (2016) *Proc Natl Acad Sci U S A* 113, 7858-63.
5. Ding, J. et al. (2016) *Nature* 535, 111-6.
6. Liu, X. et al. (2016) *Nature* 535, 153-8.
7. Sborgi, L. et al. (2016) *EMBO J* 35, 1766-78.

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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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