

**Cleaved Gasdermin D (Asp275) (E7H9G)
Rabbit mAb****Orders:** 877-616-CELL (2355)
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP, IHC-P	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 30	Source/Isotype: Rabbit IgG	UniProt ID: #P57764	Entrez-Gene Id: 79792
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**Product Usage
Information****Application**Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)**Dilution**1:1000
1:50
1:500 - 1:2000**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier-free (BSA and azide free) version of this product see product #37349.

Specificity/Sensitivity

Cleaved Gasdermin D (Asp275) Rabbit mAb recognizes endogenous levels of Gasdermin D protein only when cleaved at Asp275.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp275 of human Gasdermin D protein.

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****W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)**Cross-Reactivity Key****H:** Human**Trademarks and Patents**

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