

Product Information

Anti-GSDMD (126-138) antibody produced in rabbit IgG fraction of antiserum, buffered aqueous solution

Catalog Number **G7422**

Product Description

Anti-GSDMD (126-138) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 126-138 of human GSDMD (GeneID: 79792), conjugated to KLH. Whole antiserum is purified using protein A immobilized on agarose to provide the IgG fraction of antiserum.

Anti-GSDMD recognizes human GSDMD. The antibody may be used in various immunochemical techniques including immunoblotting (~55 kDa). Detection of the GSDMD band by immunoblotting is specifically inhibited by the immunizing peptide.

GSDMD (gasdermin D) also known as DFNA5L or Gasdermin domain-containing 1 (GSDMDC1), belongs to the gasdermin protein family of epithelial proliferation regulators.¹ GSDMD is expressed in upper gastrointestinal epithelium differentiating cells and has been suggested to act as a tumor suppressor since it was suppressed in high percentage of esophageal squamous cell carcinomas and gastric cancers². In the presence of lipopolysaccharide (LPS) from Gram-negative bacteria, inflammatory caspases including caspase-4/11 activates downstream pyroptotic cell death, interleukin-1 β processing, and lethal septic shock. The absence of GSDMD, completely blocked LPS electroporation-triggered pyroptosis in studies performed on GSDMD siRNA knockdown or GSDMD knockout (both human HeLa cells and iBMDM mouse cells).³⁻⁵ It was also reported that Caspase-4/11 specifically cleaves GSDMD after Asp275, results in gasdermin-N domain that bears intrinsic pyroptosis-inducing activity.³⁻⁴ Furthermore, GSDMD-mediated pyroptosis plays an important role in mature IL-1 β release without affecting its maturation.³⁻⁵

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 1:250-1:500 is recommended using human HEK-293T cells over-expressing human recombinant GSDMDC1.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Tamura M., et al., *Genomics.*, **89**, 618-29 (2007).
2. Saeki N., et al., *Genes Chromosomes Cancer.*, **48**, 261-71 (2009).
3. Kayagaki N., et al., *Nature.*, **526**, 666-71 (2015).
4. Shi J., et al., *Nature.*, **526**, 660-65 (2015).
5. He WT., et al., *Cell Res.*, doi: 10.1038/cr.2015.139 (2015).

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