

## Product datasheet

# Anti-GSDMA antibody [EPR19858-104] - BSA and Azide free ab231077

Recombinant RabMAb

[5 Images](#)

### Overview

<b>Product name</b>	Anti-GSDMA antibody [EPR19858-104] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR19858-104] to GSDMA - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant full length protein within Human GSDMA aa 1 to the C-terminus. The exact sequence is proprietary. Database link: <a href="#">Q96QA5</a>
<b>Positive control</b>	IP: HeLa cells stably transfected with human GSDMA expression vector, containing a DDDDK-tag, whole cell lysate. IHC-P: Human skin tissue; mouse stomach tissue; rat stomach tissue.
<b>General notes</b>	<p>Ab231077 is the carrier-free version of <a href="#">ab230768</a>. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.</p> <p>Our <a href="#">carrier-free formats</a> are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.</p> <p>Use our <a href="#">conjugation kits</a> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>ab231077 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.</p> <p><i>Maxpar® is a trademark of Fluidigm Canada Inc.</i></p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb® patents</a>.</p>

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR19858-104
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab231077** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 49 kDa.
IP		Use at an assay dependent concentration.

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## Target

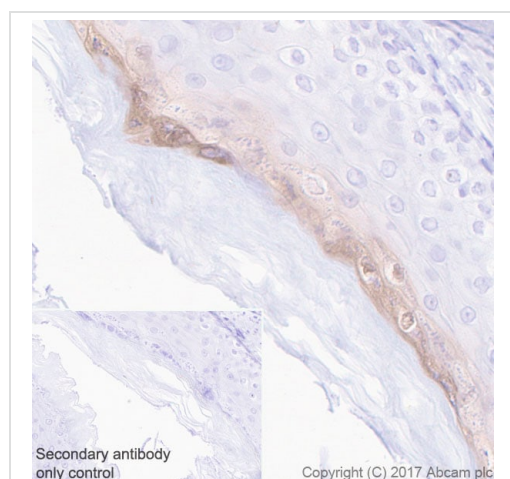
### Relevance

Function: May promote pyroptosis (Probable). Upon cleavage in vitro of genetically engineered GSDMA, the released N-terminal moiety binds to some types of lipids, such as possibly phosphatidylinositol (4,5)-bisphosphate. Homooligomerizes within the membrane and forms pores of 10 -15 nanometers (nm) of inner diameter, triggering cell death. Also binds to bacterial and mitochondrial lipids, including cardiolipin, and exhibits bactericidal activity (PubMed:27281216). The physiological relevance of these observations is unknown. Tissue specificity: Expressed predominantly in the gastrointestinal tract and, at a lower level, in the skin. Also detected in mammary gland. In the gastrointestinal tract, mainly expressed in differentiated cells, including the differentiated cell layer of esophagus and mucus-secreting pit cells of the gastric epithelium. Down-regulated in gastric cancer cells. Similarity: Belongs to the gasdermin family. Domain: Intramolecular interactions between N- and C-terminal domains may be important for autoinhibition in the absence of activation signal. The intrinsic pyroptosis-inducing activity is carried by the N-terminal domain.

### Cellular localization

Cytoplasm, perinuclear region

## Images



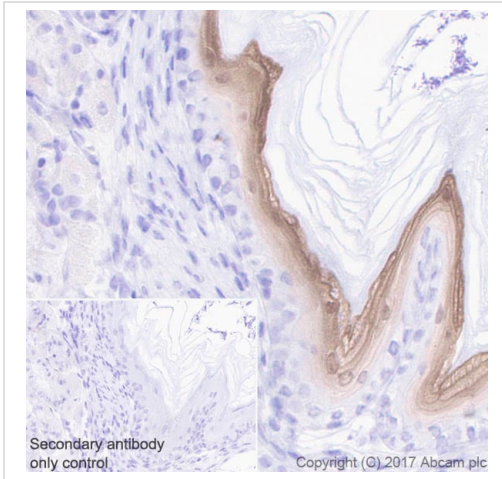
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSDMA antibody [EPR19858-104] - BSA and Azide free (ab231077)

Immunohistochemical analysis of paraffin-embedded rat stomach tissue labeling GSDMA with [ab230768](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on squamous epithelium of rat stomach (PMID: 23979942) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab230768](#)).



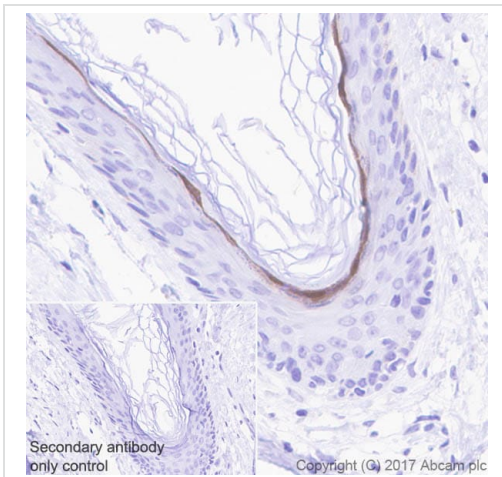
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSDMA antibody [EPR19858-104] - BSA and Azide free (ab231077)

Immunohistochemical analysis of paraffin-embedded mouse stomach tissue labeling GSDMA with [ab230768](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on squamous epithelium of mouse stomach (PMID: 23979942) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab230768](#)).



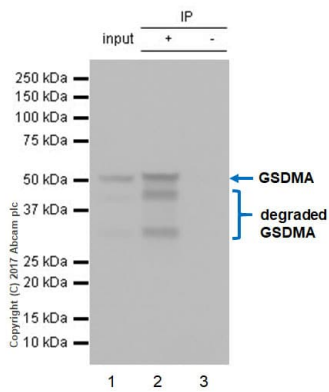
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSDMA antibody [EPR19858-104] - BSA and Azide free (ab231077)

Immunohistochemical analysis of paraffin-embedded human skin tissue labeling GSDMA with [ab230768](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on squamous epithelium of human skin (PMID: 23979942) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab230768](#)).



Immunoprecipitation - Anti-GSDMA antibody [EPR19858-104] - BSA and Azide free (ab231077)

GSDMA was immunoprecipitated from 0.35 mg of HeLa (human epithelial cell line from cervix adenocarcinoma) cells stably transfected with human GSDMA expression vector, containing a DDDDK-tag, whole cell lysate with [ab230768](#) at 1/30 dilution. Western blot was performed from the immunoprecipitate using [ab230768](#) at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10,000 dilution.

**Lane 1:** HeLa cells stably transfected with human GSDMA expression vector, containing a DDDDK-tag, whole cell lysate 10 µg (Input).

**Lane 2:** [ab230768](#) IP in HeLa cells stably transfected with human GSDMA expression vector, containing a DDDDK-tag, whole cell lysate.

**Lane 3:** Rabbit monoclonal IgG ([ab172730](#)) instead of [ab230768](#) in HeLa cells stably transfected with human GSDMA expression vector, containing a DDDDK-tag, whole cell lysate.





Blocking and dilution buffer and concentration: 5% NFDN/TBST. Exposure time: less than 1 second.

The observed molecular mass is consistent with the literature (PMID:17350798).

The observed molecular masses lower than 50 kDa are degraded expressed GSDMA protein. The cells were kindly provided by our collaborator Dr. Feng Shao, NIBS.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab230768](#)).

### Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

Anti-GSDMA antibody [EPR19858-104] - BSA and Azide free (ab231077)

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- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
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