

## Product datasheet

# Anti-MICA + MICB antibody [EPR22031] - BSA and Azide free ab241513

Recombinant RabMAb

★☆☆☆☆ [1 Abreviews](#) [2 Images](#)

### Overview

<b>Product name</b>	Anti-MICA + MICB antibody [EPR22031] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR22031] to MICA + MICB - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human, Recombinant fragment
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IHC-P: Human stomach tissue.
<b>General notes</b>	<p>ab241513 is the carrier-free version of <a href="#">ab224702</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> 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>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

## Properties

<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>	EPR22031
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab241513 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
<b>WB</b>		Use at an assay dependent concentration. Detects a band of approximately 50-60 kDa (predicted molecular weight: 42 kDa).
<b>IHC-P</b>	★☆☆☆☆ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## Target

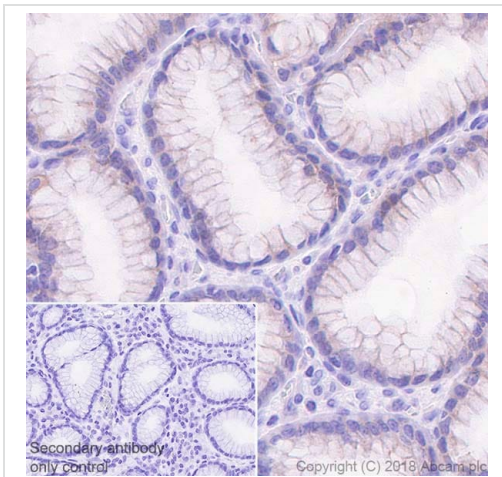
<b>Function</b>	Seems to have no role in antigen presentation. Acts as a stress-induced self-antigen that is recognized by gamma delta T-cells. Ligand for the KLRK1/NKG2D receptor. Binding to KLRK1 leads to cell lysis.
<b>Tissue specificity</b>	Widely expressed with the exception of the central nervous system where it is absent. Expressed predominantly in gastric epithelium and also in monocytes, keratinocytes, endothelial cells, fibroblasts and in the outer layer of Hassal's corpuscles within the medulla of normal thymus. In skin, expressed mainly in the keratin layers, basal cells, ducts and follicles. Also expressed in many, but not all, epithelial tumors of lung, breast, kidney, ovary, prostate and colon. In thymomas, overexpressed in cortical and medullar epithelial cells. Tumors expressing MICA display increased levels of gamma delta T-cells.
<b>Involvement in disease</b>	Anti-MICA antibodies and ligand shedding are involved in the progression of monoclonal gammopathy of undetermined significance (MGUS) to multiple myeloma. Psoriasis 1 Psoriatic arthritis
<b>Sequence similarities</b>	Belongs to the MHC class I family. MIC subfamily. Contains 1 Ig-like C1-type (immunoglobulin-like) domain.
<b>Post-translational modifications</b>	N-glycosylated. Glycosylation is not essential for interaction with KLRK1/NKG2D but enhances complex formation.

Proteolytically cleaved and released from the cell surface of tumor cells which impairs KLRK1/NKG2D expression and T-cell activation.

## Cellular localization

Cell membrane. Cytoplasm. Expressed on the cell surface in gastric epithelium, endothelial cells and fibroblasts and in the cytoplasm in keratinocytes and monocytes. Infection with human adenovirus 5 suppresses cell surface expression due to the adenoviral E3-19K protein which causes retention in the endoplasmic reticulum.

## Images







Immunohistochemical analysis of paraffin-embedded human stomach tissue labeling MICA with **ab224702** at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Membranous staining on epithelium of human stomach. (PMID: 28334733) is observed. Counterstained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP). 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 (**ab224702**).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MICA + MICB antibody [EPR22031] - BSA and Azide free (ab241513)

Why choose a recombinant antibody?

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

Anti-MICA + MICB antibody [EPR22031] - BSA and Azide free (ab241513)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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