## Product datasheet

### Anti-MICA antibody [EPR6568] ab150355

#### Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-MICA antibody [EPR6568]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit monoclonal [EPR6568] to MICA</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: WB</td>
</tr>
<tr>
<td></td>
<td>Unsuitable for: ICC/IF or IHC-P</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>Synthetic peptide corresponding to Human MICA aa 50-150.</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>HeLa, A431, and MCF7 cell lysates</td>
</tr>
<tr>
<td><strong>General notes</strong></td>
<td>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</td>
</tr>
</tbody>
</table>

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.

#### Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.5% BSA</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>EPR6568</td>
</tr>
</tbody>
</table>
Isotype

IgG

Applications

Our Abpromise guarantee covers the use of ab150355 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/1000 - 1/10000. Detects a band of approximately 43-70 kDa (predicted molecular weight: 42 kDa).</td>
<td></td>
</tr>
</tbody>
</table>

Application notes

Is unsuitable for ICC/IF or IHC-P.

Target

Function

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.

Tissue specificity

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 medullary epithelial cells. Tumors expressing MICA display increased levels of gamma delta T cells.

Involvement in disease

Note=Anti-MICA antibodies and ligand shedding are involved in the progression of monoclonal gammopathy of undetermined significance (MGUS) to multiple myeloma.

Genetic variations in MICA may be a cause of susceptibility to psoriasis type 1 (PSORS1) [MIM:177900]. Psoriasis is a common, chronic inflammatory disease of the skin with multifactorial etiology. It is characterized by red, scaly plaques usually found on the scalp, elbows and knees. These lesions are caused by abnormal keratinocyte proliferation and infiltration of inflammatory cells into the dermis and epidermis.

Genetic variation in MICA is a cause of susceptibility to psoriatic arthritis (PSORAS) [MIM:607507]. PSORAS is an inflammatory, seronegative arthritis associated with psoriasis. It is a heterogeneous disorder ranging from a mild, non-destructive disease to a severe, progressive, erosive arthropathy. Five types of psoriatic arthritis have been defined: asymmetrical oligoarthritis characterized by primary involvement of the small joints of the fingers or toes; asymmetrical arthritis which involves the joints of the extremities; symmetrical polyarthritis characterized by a rheumatoidlike pattern that can involve hands, wrists, ankles, and feet; arthritis mutilans, which is a rare but deforming and destructive condition; arthritis of the sacroiliac joints and spine (psoriatic spondylitis).

Sequence similarities

Belongs to the MHC class I family. MIC subfamily.

Contains 1 Ig-like C1-type (immunoglobulin-like) domain.

Post-translational modifications

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

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**

- **Western blot - Anti-MICA antibody [EPR6568](ab150355) at 1/1000 dilution (purified) + A431 (Human epidermoid carcinoma epithelial cell) whole cell lysates at 15 µg**
  
  **Secondary**
  Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution
  
  **Predicted band size:** 42 kDa

- **Blocking and diluting buffer:** 5% NFDM/TBST

- **Western blot - Anti-MICA antibody [EPR6568](ab150355) at 1/1000 dilution (purified) + HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg**
  
  **Secondary**
  Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution
  
  **Predicted band size:** 42 kDa

- **Blocking and diluting buffer:** 5% NFDM/TBST
All lanes: Anti-MICA antibody [EPR6568] (ab150355) at 1/1000 dilution (unpurified)

Lane 1: HeLa cell lysate
Lane 2: A431 cell lysate
Lane 3: MCF7 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 42 kDa
Observed band size: 43-70 kDa

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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