

Product datasheet

Anti-MICA antibody ab62540

★★★★☆ [2 Abreviews](#) [7 References](#) [3 Images](#)

Overview

Product name	Anti-MICA antibody
Description	Rabbit polyclonal to MICA
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Human
Immunogen	A 16 amino acid peptide from near the carboxy terminus of human MICA.
Positive control	IHC-P: Human colon and atheromatous aorta tissue. WB: A-20 cell lysate.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at +4°C.
Storage buffer	pH: 7.2 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab62540 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
WB		Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 46 kDa (predicted molecular weight: 43 kDa). WB only validated in mouse samples
IHC-P	★ ★ ★ ★ ★ (1)	Use a concentration of 10 µg/ml.

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 medullar 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.

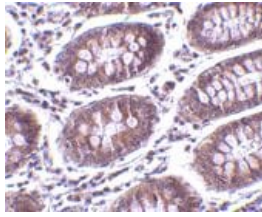
Post-translational modifications

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.

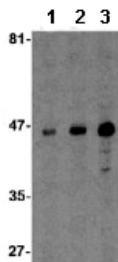
Cellular localization

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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MICA antibody (ab62540)

ab62540 at 10µg/ml staining MICA in human colon tissue section by Immunohistochemistry (Formalin/ PFA fixed paraffin-embedded tissue sections).



Western blot - Anti-MICA antibody (ab62540)

Lane 1 : Anti-MICA antibody (ab62540) at 0.5 µg/ml

Lane 2 : Anti-MICA antibody (ab62540) at 1 µg/ml

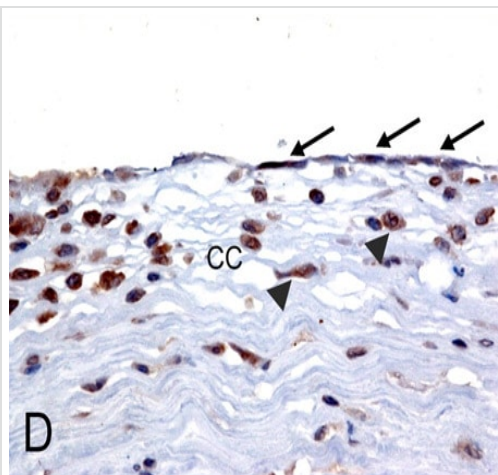
Lane 3 : Anti-MICA antibody (ab62540) at 2 µg/ml

All lanes : A-20 cell lysate

Lysates/proteins at 15 µg per lane.

Predicted band size: 43 kDa

Observed band size: 46 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MICA antibody (ab62540)

Immunohistochemical analysis of formalin-fixed paraffin-embedded Human atheromatous aorta, staining MICA with ab62540.

Image from Lin D et al., J Biol Chem. 2012 Feb 3;287(6):4299-310. Epub 2011 Dec 14. Fig 4.; doi: 10.1074/jbc.M111.282152; February 3, 2012 The Journal of Biological Chemistry, 287, 4299-4310.

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