

Anti-MICA Picoband Antibody
Catalog # ABO12298**Specification**

Anti-MICA Picoband Antibody - Product Information

Application	WB
Primary Accession	Q29983
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for MHC class I polypeptide-related sequence A(MICA) detection.
Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MICA Picoband Antibody - Additional Information

Gene ID 100507436

Other Names

MHC class I polypeptide-related sequence A, MIC-A, MICA {ECO:0000312|EMBL:CAI41907.1}

Calculated MW

42915 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Cell membrane ; Single- pass type I membrane protein . 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. .

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. .

Protein Name

MHC class I polypeptide-related sequence A

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human MICA (304-334aa QSHWQTFHVSAAVAAAKFVEIFYVRCKKK).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the MHC class I family. MIC subfamily.

Anti-MICA Picoband Antibody - Protein Information

Name MICA {ECO:0000312|EMBL:CAI41907.1}

Function

Widely expressed membrane-bound protein which acts as a ligand to stimulate an activating receptor KLRK1/NKG2D, expressed on the surface of essentially all human natural killer (NK), gamma delta T and CD8 alpha beta T-cells (PubMed: [11491531](http://www.uniprot.org/citations/11491531), PubMed: [11777960](http://www.uniprot.org/citations/11777960)). Up-regulated in stressed conditions, such as viral and bacterial infections or DNA damage response, serves as signal of cellular stress, and engagement of KLRK1/NKG2D by MICA triggers NK-cells resulting in a range of immune effector functions, such as cytotoxicity and cytokine production (PubMed: [10426993](http://www.uniprot.org/citations/10426993)).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Cytoplasm Note=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.

Tissue Location

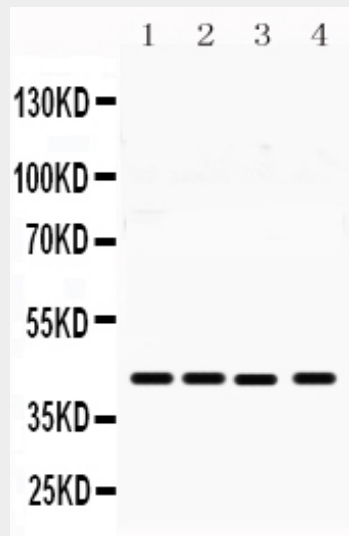
Widely expressed with the exception of the central nervous system where it is absent. Expressed predominantly in gastric epithelium and also in monocytes, keratinocytes, endothelial cells, fibroblasts and in the outer layer of Hassal's corpuscles within the medulla of normal thymus. In skin, expressed 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.

Anti-MICA Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-MICA Picoband Antibody - Images



Anti- MICA Picoband antibody, ABO12298, Western blotting All lanes: Anti MICA (ABO12298) at 0.5ug/ml
Lane 1: SW620 Whole Cell Lysate at 40ug
Lane 2: A549 Whole Cell Lysate at 40ug
Lane 3: MCF-7 Whole Cell Lysate at 40ug
Lane 4: HELA Whole Cell Lysate at 40ug
Predicted bind size: 43KD
Observed bind size: 43KD

Anti-MICA Picoband Antibody - Background

This gene encodes the highly polymorphic major histocompatibility complex class I chain-related protein A. The protein product is expressed on the cell surface, although unlike canonical class I molecules it does not seem to associate with beta-2-microglobulin. It is a ligand for the NKG2-D type II integral membrane protein receptor. And the protein functions as a stress-induced antigen that is broadly recognized by intestinal epithelial gamma delta T cells. Variations in this gene have been associated with susceptibility to psoriasis 1 and psoriatic arthritis, and the shedding of MICA-related antibodies and ligands is involved in the progression from monoclonal gammopathy of undetermined significance to multiple myeloma. Alternative splicing of this gene results in multiple transcript variants.