

Anti-Human MICA Monoclonal Antibody AMO1

Antigen: Human MICA (MHC-class I-related chain A)

Clone: AMO1, mouse IgG1

Catalog Number: AMO1-100

Specificity: binds: MICA*01, MICA*04, MICA*07, MICA*08

binds not: MICB*02

blocks: NKG2D binding to MICA

Epitope: in $\alpha 1\alpha 2$ superdomain of MICA

independent of glycosylation

Applications: Flow cytometry, ELISA

Size: 100 μg, 1.0 mg/ml, in 0.1 ml phosphate-buffered saline, pH 7.4 with 0.05%

sodium azide (Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially

explosive deposits in plumbing).

Usage: Since applications may vary, the reagent should be titrated to obtain optimal

results. In general, for flow cytometry we recommend to use 10µg mAb/ml and

for ELISA 1-10 µg mAb/ml.

Purification: Protein A affinity chromatography

Storage: Store at 4°C. For long-term storage freezing at -80°C is recommended.

Description: MICA (MHC class I-related chain A) is a polymorphic, human MHC-encoded

cell surface glycoprotein and ligand of the activating C-type lectin-like immunoreceptor NKG2D [1-5]. NKG2D engagement of MICA activates NK cells and costimulates CD8 T cells [3,6]. MICA is expressed on gastrointestinal epithelium and inducible by cell stress, viral and bacterial infection [2,6-8]. MICA is also expressed by malignant epithelial and haematopoietic cells, and MICA expression has been shown to enhance tumor rejection in vivo [9-12]. Tumor cells shed soluble MICA which is detectable in sera of patients with epithelial and haematopoietic malignancies and may counteract tumor

immunosurveillance [10,12-14].

Conditions: For research use only. Not for use in diagnostic or therapeutic

procedures. BAMOMAB is not responsible for any patent infringements

caused by the use of this product.

Country of Origin: Germany

Literature: 1. Bahram S et al. Proc Natl Acad Sci USA 91, 6259-6263 (1994).

2. Groh V et al. Proc Natl Acad Sci USA 93, 12445-12450 (1996).

3. Bauer S et al. Science 285, 727-729 (1999).

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6. Groh V et al. *Nat Immunol* **2**, 255-260 (2001).

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10. Salih HR et al. Blood 102, 1389-1396 (2003).

11. Friese MA et al. Cancer Res 63, 8996-9006 (2003).

12. Wiemann K et al. J Immunol 175, 720-729 (2005).

13. Salih HR et al. *J Immunol* **169**, 4098-4102 (2002).

14. Groh V et al. Nature 419, 734-738 (2002).

Human B cell line C1R transfected with vector (light grey), MICA*01 (black), or MICA*04 (dark grey), was stained with

AMO1 and anti-mouse Ig-PE conjugate.