

Anti-Human MICA Monoclonal Antibody AMO1

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

Clone: AMO1, mouse IgG1

Catalog Number: AMO1-50

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: 50 μg, 1.0 mg/ml, in 0.05 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).

4. Steinle A et al. Immunogenetics 53, 279-287 (2001).

5. Li P et al. Nat Immunol 2, 443-451 (2001).

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

7. Spies T *Proc Natl Acad Sci USA* **99**, 2584-2586 (2002).

8. Welte S et al. Eur J Immunol 33, 194-203 (2003).

9. Groh V et al. *Proc Natl Acad Sci USA* **96**, 6879-6884 (1999).

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.



Anti-Human MICB Monoclonal Antibody BMO2

Antigen: Human MICB (MHC class I-related chain B)

Clone: BMO2, mouse IgG2a

Catalog Number: BMO2-50

Specificity: binds: MICB*02

binds not: MICA*01, MICA*04 blocks: NKG2D binding to MICB

Epitope: in α 2 domain of MICB (ref. 14)

Applications: Flow cytometry, ELISA

Size: 50 μg, 1.0 mg/ml, in 0.05 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 and MICB (MHC class I-related chain A) are polymorphic, human MHC-

encoded cell surface glycoproteins and ligands of the activating C-type lectin-like immunoreceptor NKG2D [1-5]. NKG2D engagement of MICA/B activates NK cells and costimulates CD8 T cells [3,6]. MICB like MICA is inducible by cell stress, viral and bacterial infection [6-8]. MICA and MICB are also expressed by malignant epithelial and haematopoietic cells [9, 10]. Tumor cells shed soluble MICA and MICB which are detectable in sera of patients with epithelial and haematopoietic malignancies and may counteract tumor immunosurveillance [10-13]. HCMV-encoded UL16 glykoprotein retains MICB

intracellularly [8,14].

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).

4. Steinle A et al. Immunogenetics 53, 279-287 (2001).

5. Li P et al. Nat Immunol 2, 443-451 (2001).

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

7. Spies T Proc Natl Acad Sci USA 99, 2584-2586 (2002).

3. Welte S et al. *Eur J Immunol* **33**, 194-203 (2003).

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

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

13. Salih HR et al. Hum Immunol 67, 188-195 (2006).

14. Spreu J et al. *J Immunol* **177**, 3143-3149 (2006).

Human B cell line C1R transfected with vector (light grey), MICA*01 (dark grey), or MICB*02 (black), was stained with BMO2 anti-anti-mouse Ig-PE conjugate.



Anti-Human MICA/B Monoclonal Antibody BAMO1

Antigen: **Human MICA and MICB**

Clone: BAMO1, mouse IgG1

Catalog Number: BAMO1-50

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

MICB*02

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

linear epitope independent of glycosylation

Human B cell line C1R transfected with vector (light grey), MICA*01 (black), or MICB*02 (dark grey), was stained with BAMO1 and anti-mouse Ig-PE conjugate.

Applications: Flow cytometry, ELISA, Immunoblot

Size: 50 µg, 1.0 mg/ml, in 0.05 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).

For immunoblotting we recommend a final dilution of 1 µg BAMO1/ml. **Usage:**

In general, for flow cytometry we recommend a final dilution of 10µg mAb/ml

and for ELISA 1-10 µg mAb/ml.

Purification: Protein A affinity chromatography

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

Description: MICA and MICB (MHC class I-related chain A) are polymorphic, human MHC-

> encoded cell surface glycoproteins and ligands of the activating C-type lectinlike immunoreceptor NKG2D [1-5]. NKG2D engagement of MICA/B 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 and MICB are 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 and MICB which are detectable in sera of patients with epithelial and haematopoietic

malignancies and may counteract tumor immunosurveillance [10,12-14].

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

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Spies T Proc Natl Acad Sci USA 99, 2584-2586 (2002).

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Groh V et al. Proc Natl Acad Sci USA 96, 6879-6884 (1999).

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).