

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).

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: BMO2-100

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: 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

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.

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).

B. 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. 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).



Anti-Human MICA/B Monoclonal Antibody BAMO1

Antigen: Human MICA and MICB

Clone: BAMO1, mouse IgG1

Catalog Number: BAMO1-100

Applications:

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

Flow cytometry, ELISA, Immunoblot

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

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

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]. 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].

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)

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 MICB*02 (dark grey), was stained with

BAMO1 and anti-mouse Ig-PE conjugate.