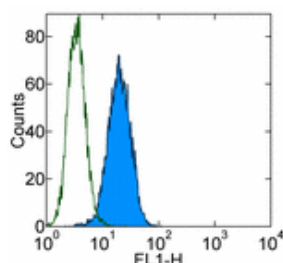


Anti-Human MICA/B Alexa Fluor® 488

Catalog Number: 53-5788

Also Known As: MICA/MICB, MICA, MICB

RUO: For Research Use Only



Staining of HeLa cells with Mouse IgG2a κ Isotype Control Alexa Fluor® 488 (cat. 53-4724) (open histogram) or Anti-Human MICA/B Alexa Fluor® 488 (filled histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Human MICA/B Alexa Fluor® 488

REF Catalog Number: 53-5788

Clone: 6D4

Concentration: 5 μ l (0.25 μ g)/test

Host/Isotype: Mouse IgG2a, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.

LOT Batch Code: Refer to Vial

 Use By: Refer to Vial

 Caution, contains Azide

Description

The 6D4 monoclonal antibody reacts with the human major histocompatibility complex (MHC) class I chain-related (MIC), MICA and MICB proteins. MICA and MICB are related proteins of 83% amino acid similarity, and show homology with classical human leukocyte antigen (HLA) molecules. The structure of MICA and MICB are similar to classical HLA class I chains, however they do not bind β 2 microglobulin or bind peptide typical of HLA class I. MICA and MICB are expressed on the cell surface of endothelial cells, fibroblasts, gastric epithelium and PHA-stimulated T cells, and act as a ligand for NKGD2 expressed on the surface of NK cells, $\gamma\delta$ T cells and $\alpha\beta$ CD8+ T cells. There is evidence to suggest that human cytomegalovirus (HCMV) subverts NK cell detection by inhibiting the function of MICB. Furthermore, MICA and MICB expression has been detected in several epithelial tumours isolated from breast, lung, ovary, prostate, colon and kidney.

Applications Reported

This 6D4 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This 6D4 antibody has been pre-titrated and tested by flow cytometric analysis of HeLa cells. This can be used at 5 μ l (0.25 μ g)/per test. A test is defined as the amount (μ g)/test of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test.

References

Groh V, Steinle A, Bauer S, Spies T. Recognition of stress-induced MHC molecules by intestinal epithelial gammadelta T cells. *Science*. 1998 Mar 13;279(5357):1737-40. (6D4, FA, FC, PubMed)

Li Z, Groh V, Strong RK, Spies T. A single amino acid substitution causes loss of expression of a MICA allele. *Immunogenetics*. 2000 Mar;51(3):246-8. (6D4, FC, WB, PubMed)

Jinushi M, Takehara T, Kanto T, Tatsumi T, Groh V, Spies T, Miyagi T, Suzuki T, Sasaki Y, Hayashi N. Critical role of MHC class I-related chain A and B expression on IFN- α -stimulated dendritic cells in NK cell activation: impairment in chronic hepatitis C virus infection. *J Immunol*. 2003 Feb 1;170(3):1249-56. (6D4, FC, FA, PubMed)

Edelmann W, Zervas M, et al. 1996. Neuronal abnormalities in microtubule-associated protein 1B mutant mice. *Proc Natl Acad Sci U S A*. 93(3):1270-5. (IHC frozen, PubMed)

Hankey KG, Drachenberg CB, et al. 2002. MIC expression in renal and pancreatic allografts. *Transplantation*. 73(2):304-6. (IHC paraffin, PubMed)

Groh V, Rhinehart R, et al. 1999. Broad tumor-associated expression and recognition by tumor-derived gamma delta T cells of MICA and MICB. Proc Natl Acad Sci U S A. 96(12):6879-84. (IHC frozen and paraffin, PubMed)

Related Products

13-5878 Anti-Human CD314 (NKG2D) Biotin (1D11)

53-4724 Mouse IgG2a K Isotype Control Alexa Fluor® 488

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