

Technical Data Sheet

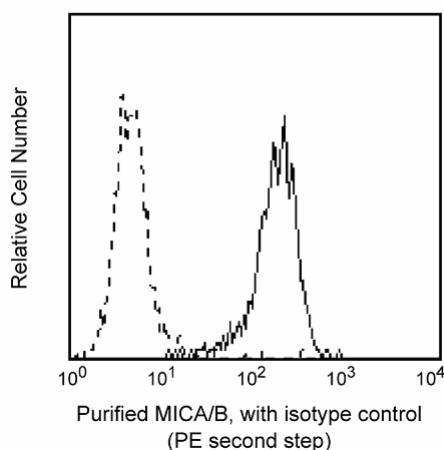
Purified Anti-Human MIC A/B

Product Information

Material Number:	558032
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	6D4
Immunogen:	Transfected cells
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

Monoclonal antibody 6D4 reacts with MICA and MICB, distant homologs of major histocompatibility complex class I proteins. They are highly glycosylated molecules of approximately 70 kDa that are normally expressed in gut epithelium, are frequently associated with epithelial tumors and can be induced by some viral and bacterial infections. MIC are highly expressed on proliferating but not on quiescent epithelial cell lines, on which they can be heat-shock induced. MIC have similar functional and structural properties and are ligands for NKG2D, an activating receptor on most NK cells, CD8 T cells and $\gamma\delta$ T cells. Expression of MIC has been observed on synoviocytes in rheumatoid arthritis and on epithelial cells in transplanted kidney and pancreas showing histological signs of rejection and or cellular injury.



Profile of anti MIC A/B (clone 6D4) reactivity on HeLa cells analyzed by flow cytometry. Second step staining with Cat. No. 550589.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
555571	Purified Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal
550589	PE Goat Anti-Mouse Ig (Multiple Adsorption)	0.2 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. 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.

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References

- Bauer S, Groh V, Wu J, et al. Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA. *Science*. 1999; 285(5428):727-729.(Biology)
- Das H, Groh V, Kujil C, et al. MICA engagement by human Vgamma2Vdelta2 T cells enhances their antigen-dependent effector function. *Immunity*. 2001; 15(1):83-93.(Biology)
- Groh V, Bahram S, Bauer S, Herman A, Beauchamp M, Spies T. Cell stress-regulated human major histocompatibility complex class I gene expressed in gastrointestinal epithelium. *Proc Natl Acad Sci U S A*. 1996; 93(22):12445-12450.(Biology)
- Groh V, Bruhl A, El-Gabalawy H, Nelson JL, Spies T. Stimulation of T cell autoreactivity by anomalous expression of NKG2D and its MIC ligands in rheumatoid arthritis. *Proc Natl Acad Sci U S A*. 2003; 100(16):9452-9457.(Biology)
- Groh V, Rhinehart R, Randolph-Habecker J, Topp MS, Riddell SR, Spies T. Costimulation of CD8alphabeta T cells by NKG2D via engagement by MIC induced on virus-infected cells. *Nat Immunol*. 2001; 2(3):255-260.(Biology)
- Groh V, Rhinehart R, Secrist H, Bauer S, Grabstein KH, Spies T. Broad tumor-associated expression and recognition by tumor-derived gamma delta T cells of MICA and MICB. *Proc Natl Acad Sci U S A*. 1999; 96(12):6879-6884.(Biology)
- Hankey KG, Drachenberg CB, Papadimitriou JC, et al. MIC expression in renal and pancreatic allografts. *Transplantation*. 2002; 73(2):304-306.(Biology)