

MICA/B Monoclonal Antibody (6D4), Functional Grade, eBioscience™

Product Details	
Size	500 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	6D4
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_494087

Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Immunohistochemistry (IHC)	Assay-Dependent	1 Publication
Flow Cytometry (Flow)	0.25 µg/test	3 Publications
Immunoprecipitation (IP)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	-

Product Specific Information

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 beta2 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, gammadelta 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, immunoprecipitation, and immunohistochemical staining.

Applications Tested: This 6D4 antibody has been tested by flow cytometric analysis of HeLa cells. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that

the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

5 References

Western Blot (1)

Liver transplantation : official publication of the American Association for the Study of Liver Diseases and the International Liver Transplantation Society	Year 2008
Evidence for no relevance of anti-major histocompatibility complex class I-related chain a antibodies in liver transplantation.	
"Published figure using MICA/B monoclonal antibody (Product # 16-5788-85) in Immunohistochemistry"	
Authors: Uzunel M,Kasimu H,Joshi M,Ge X,Liu J,Xu B,Jaksch M,Jorns C,Nowak G,Sumitran-Holgersson S	

Immunohistochemistry (1)

Liver transplantation : official publication of the American Association for the Study of Liver Diseases and the International Liver Transplantation Society	Year 2008
Evidence for no relevance of anti-major histocompatibility complex class I-related chain a antibodies in liver transplantation.	
"Published figure using MICA/B monoclonal antibody (Product # 16-5788-85) in Immunohistochemistry"	
Authors: Uzunel M,Kasimu H,Joshi M,Ge X,Liu J,Xu B,Jaksch M,Jorns C,Nowak G,Sumitran-Holgersson S	

Flow Cytometry (3)

Oncoimmunology	Year 2021
Low dose gemcitabine increases the cytotoxicity of human V9V2 T cells in bladder cancer cells <i>in vitro</i> and in an orthotopic xenograft model.	
"Published figure using MICA/B monoclonal antibody (Product # 16-5788-85) in Flow Cytometry"	
Authors: Shimizu T,Tomogane M,Miyashita M,Ukimura O,Ashihara E	

Oncology letters	Year 2017
Role of NKG2D in cytokine-induced killer cells against lung cancer.	
"Published figure using MICA/B monoclonal antibody (Product # 16-5788-85) in Flow Cytometry"	
Authors: Yin X,Lu X,Xiuwen Z,Min Z,Xiao R,Mao Z,Zhang Q	

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