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 10^5 to 10^8 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 Western Blot"

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 Western Blot"

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 *in vitro* 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

View more Flow references on thermofisher.com

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.