SONY

Product Data Sheet

Alexa Fluor® 488 anti-human MICA/MICB

Catalog # / Size: 2204560 / 100 tests

Clone: 6D4

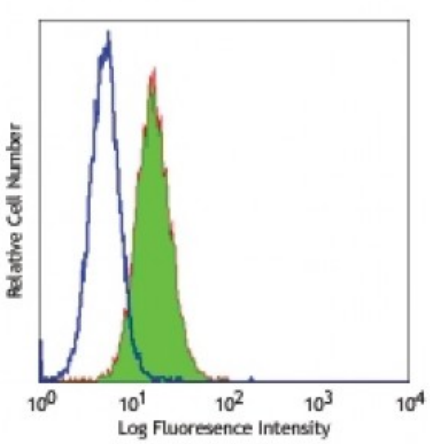
Isotype: Mouse IgG2a, κ

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Concentration: Lot-specific



Human Hela cell line stained with 6D4 Alexa Fluor® 488

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

Application Notes: Additional reported (for the relevant formats) applications include: immunohistochemistry[2,3,5] of acetone-fixed frozen sections and formalin-fixed paraffin-embedded tissue sections, immunoprecipitation[7], and blocking[2,3] of MIC mediated cytotoxicity. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 320910).

Application References:

1. Groh V, *et al.* 1999. *Science* 279:1737.
2. Groh V, *et al.* 1999. *Proc. Natl. Acad. Sci. USA.* 96:6879.
3. Groh V, *et al.* 2001. *Nature Immunol.* 2:255.
4. Li Z, *et al.* 2000. *Immunogenetics* 51:246.
5. Park EJ, *et al.* 2003. *J. Immunol.* 171:4131.
6. Jinushi M, *et al.* 2003. *J. Immunol.* 171:5423.
7. Wu J, *et al.* 2003. *J. Immunol.* 170:4196.
8. Okita R, *et al.* 2012. *J Immunol.* 188:2136. PubMed.
9. Mo C, *et al.* 2012. *J Biol Chem.* 287:19242. PubMed.

Description: 6D4 antibody reacts with a common epitope of the human nonclassical MHC class I chain-related protein A (MICA) and B (MICB), also known as PERB11.1 and PERB11.2. The MIC gene is located in MHC class I region. MICA/B are 65-75 kD stress-inducible glycoproteins with highly polymorphic. They are MHC class I-like transmembrane molecules that do not associate β2-microglobulin and do not present peptides. MICA and MICB share 85% identify, and are mainly expressed on Intestinal epithelial cells, epithelial tumor cells, endothelial cells, fibroblasts,

and IFN-α-stimulated dendritic cells. MIC molecules bind NKG2D, an activating receptor, and induce activation of NK cells, and subset of CD8+ α/β T cells and γ/δ T cells, as well as suppression of T cell proliferation. MICA/B recognition is involved in the regulation of tumor surveillance, viral infection and autoimmune diseases. The 6D4 antibody is able to block MIC mediated cytotoxicity.

Antigen References:

1. Groh V, *et al.* 1996. *Proc. Natl. Acad. Sci. USA.* 93:12445.
2. Groh V, *et al.* 1999. *Proc. Natl. Acad. Sci. USA.* 96:6879.
3. Jinushi M, *et al.* 2003. *J. Immunol.* 170:1249.
4. Kriegeskorte AK, *et*