SONY

Product Data Sheet

PE anti-human MICA/MICB

Catalog # / Size: 2204530 / 100 tests

Clone: 6D4

Isotype: Mouse IgG2a, κ

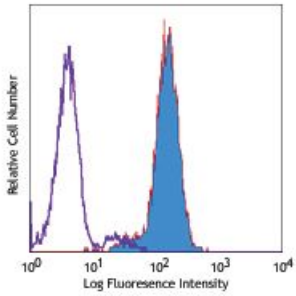
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.

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

Workshop Number: HCDM listed

Concentration: Lot-specific



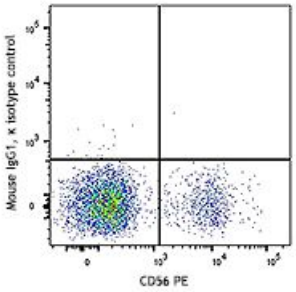
Human Hela cell line stained with 6D4 PE

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

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).



Human peripheral blood lymphocytes were stained with True-Nuclear™ Human Treg Flow™ Kit (FOXP3 Alexa Fluor® 488/CD4 PE-Cy5/CD25 PE).

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. Watanbe M, *et al.* 2014. *Int Immunol.* PubMed

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Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

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 al.* 2005. *Proc. Natl. Acad. Sci. USA.* 102:11805.
5. Groh V, *et al.* 1999. *Science* 279:1737.

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