

Catalog Number: 10759-MM12-F

General Information	
<b>Immunogen:</b>	Recombinant Human MICB / MIC-B protein (Catalog#10759-H08H)
<b>Reagents:</b>	FITC-conjugated mouse monoclonal antibody
<b>Specificity:</b>	Human MICB / MIC-B
<b>Clone ID:</b>	2F9E7
<b>Ig Type:</b>	Mouse IgG1
<b>Applications:</b>	Flow Cytometry, WB
<b>Concentration:</b>	5 µl/Test, 0.2 mg/ml
<b>Formulation:</b>	Aqueous solution containing 0.5% BSA and 0.1% sodium azide
<b>Storage:</b>	2 °C - 8 °C in the dark

### Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human MICB / MIC-B (rh MICB; Catalog#10759-H08H; NP\_005922.2; Met 1-Gly 298) and conjugated with FITC under optimum conditions, the unreacted FITC was removed.

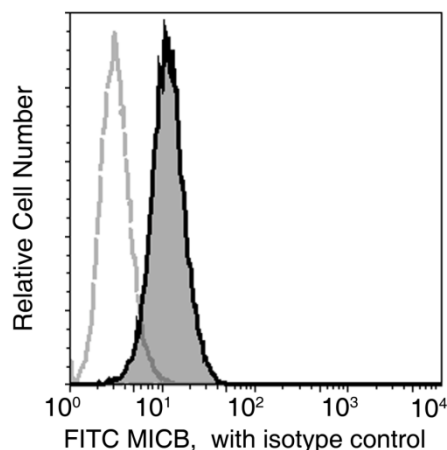
### Storage

This antibody is stable for 12 months from date of receipt when stored at 2°C - 8°C. Protected from prolonged exposure to light. **Do not freeze !**

Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal

### Applications

**Flow Cytometry** – HeLa cells were detached using 1X trypsin, washed, then stained with FITC mouse anti-MICB.



### Flow cytometric analysis of anti-MICB on HeLa cells.

Flow cytometry was performed on a BD FACSCalibur flow cytometry system.

Please refer to [www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html](http://www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html) for technical protocols.

**Western blot** – This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human MICB in WB.

### Specificity

Human MICB / MIC-B

## Background

MHC class I polypeptide-related sequence B, also known as MICB, is a heavily glycosylated protein serving as a ligand for the type II receptor NKG2D. MICB shares 85% amino acid identity with MICA, a closely related protein, both of which contain three extracellular immunoglobulin-like domains, but without capacity to bind peptide or interact with beta-2-microglobulin. Acting as a stress-induced self-antigen, binding of MICB to the NKG2D receptor activates the cytolytic response of natural killer (NK) cells, CD8+ $\alpha\beta$  T cells, and  $\gamma\delta$  T cells on which the receptor is expressed. MICA/B are minimally expressed on normal cells, but are frequently expressed on epithelial tumors and can be induced by bacterial and viral infections. MICA/B recognition thus is involved in tumor surveillance, viral infections, and autoimmune diseases.

## Reference

1. Bauer, S. et al., 1999, *Science*. 285:727-729.
2. Braud, V.M. et al., 1999, *Curr. Opin. Immunol.* 11: 100-108.
3. Groh, V. et al., 2001, *Nature Immunol.* 2: 255-260.
4. Stephens, H., 2001, *Trends Immunol.* 22: 378-385.
5. Borrego, F. et al., 2002, *Mol. Immunol.* 38: 637-660.
6. Groh, V. et al., 2002, *Nature*. 419:734-738.