

# CD99 / MIC2 Monoclonal Mouse Antibody (12E7 + MIC2/877)

## Product Description

This antibody recognizes a sialoglycoprotein of 27-32 kDa, identified as CD99, or MIC2 gene product, or E2 antigen. MIC2 gene is located in the pseudo-autosomal region of the human X and Y chromosome. MIC2 gene encodes two distinct proteins, which are produced by alternative splicing of the CD99 gene transcript and are identified as bands of 30 and 32 kDa (p30/32). Although its function is not fully understood, CD99 is implicated in various cellular processes including homotypic aggregation of T cells, upregulation of T cell receptor and MHS molecules, apoptosis of immature thymocytes and leukocyte diapedesis. CD99 is expressed on the cell membrane of some lymphocytes, cortical thymocytes, and granulosa cells of the ovary. Most pancreatic islet cells, Sertoli cells of the testis, and some endothelial cells express this antigen. Mature granulocytes express very little or no CD99. MIC2 is strongly expressed on Ewing's sarcoma cells and primitive peripheral neuroectodermal tumors. **Catalog number key for antibody number 0878, Anti-CD99|MIC2 (12E7 MIC2/877)**

## Product attributes

|                                       |  |
|---------------------------------------|--|
| Antibody number                       | #0878  |
| Antibody reactivity (target)          | CD99, MIC2   |
| Antibody type                         | Primary  |
| Host species                          | Mouse  |
| Clonality                             | Monoclonal   |
| Clone                                 | 12E7 + MIC2/877  |
| Isotype                               | IgG1, kappa  |
| Molecular weight                      | 27-32 kDa  |
| Synonyms                              | 12E7; E2 antigen; MIC 2X; MIC 2Y; MIC2; Protein MIC2; Surface antigen MIC2; T-cell surface glycoprotein E2   |
| Human gene symbol                     | CD99   |
| Entrez gene ID                        | 4267   |
| SwissProt                             | P14209   |
| Unigene                               | 653349   |
| Immunogen                             | Human acute lymphocytic leukemia T-cells (12E7); Recombinant human MIC2 protein (MIC2/877)   |
| Antibody target cellular localization | Plasma membrane  |
| Verified antibody applications        | IHC (FFPE) (verified)  |
| Species reactivity                    | Human  |
| Antibody application notes            | Flow cytometry: 5-10 uL/million cells, Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistochemistry (formalin-fixed): 1:100-1:200 for 30 minutes at RT, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at RT for 20 minutes, Immunofluorescence 1:100-1:200, Optimal dilution for a specific application should be determined by user |
| Positive control                      | MOLT-4 cells. Pancreas or Ewing's sarcoma.   |
| Shipping condition                    | Room temperature   |
| Storage Conditions                    | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  |
| Regulatory status                     | For research use only (RUO)  |
| Antibody/conjugate formulation        | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide  |
| Shelf life                            | Guaranteed for at least 24 months from date of receipt when stored as recommended  |
| Cell/tissue expression                | Lymphocytes, Ovary, Pancreatic islet cells, T-cells, Testis  |
| Product origin                        | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.  |
| Tumor expression                      | Sarcoma  |
| Antibody research areas               | Cancer, Endocrinology, Immunology  |

| Antibody # prefix | Conjugation        | Ex/Em (nm) | Laser line | Detection channel        | Dye Features                     |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04             | CF@405S            | 404/431    | 405        | DAPI (microscopy), AF405 | <a href="#">CF@405S Features</a> |
| BNC88             | CF@488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF@488A Features</a> |
| BNC68             | CF@568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF@568 Features</a>  |
| BNC94             | CF@594             | 593/614    | 561        | Texas Red®               | <a href="#">CF@594 Features</a>  |
| BNC40             | CF@640R            | 642/662    | 633-640    | Cy@5                     | <a href="#">CF@640R Features</a> |
| BNC47             | CF@647             | 650/665    | 633-640    | Cy@5                     | <a href="#">CF@647 Features</a>  |
| BNC74             | CF@740             | 742/767    | 633-685    | 775/50                   | <a href="#">CF@740 Features</a>  |
| BNCB              | Biotin             | N/A        | N/A        | N/A                      |                                  |
| BNUB              | Purified           | N/A        | N/A        | N/A                      |                                  |
| BNUM              | Purified, BSA-free | N/A        | N/A        | N/A                      |                                  |

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