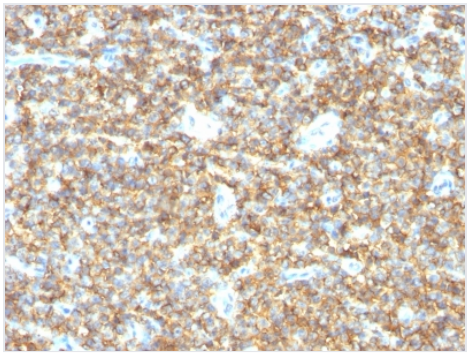
# CD99 Antibody – Mouse Monoclonal

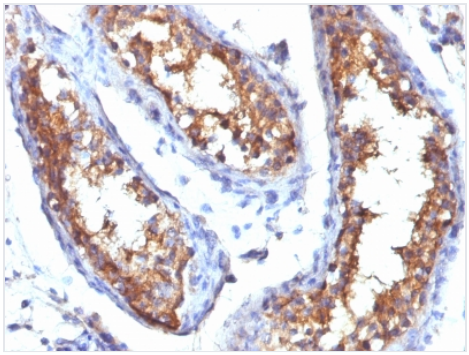
## PRODUCT OVERVIEW

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| **Product Name** | CD99 / MIC2, Monoclonal Antibody |
| **Full Product Name** | CD99 / MIC2 (Ewing's Sarcoma Marker) Mouse Monoclonal Antibody |
| **Product Gene Name** | anti-CD99 antibody |
| **Product Synonym Names** | 12E7; E2 antigen; MIC 2X; MIC 2Y; MIC2; Protein MIC2; Surface antigen MIC2; T-cell surface glycoprotein E2 |
| **Clonality** | Monoclonal |
| **Isotype** | IgM, kappa |
| **Clone Number** | HO36-1.1 |
| **Host** | Mouse |
| **Species Reactivity** | Human, Rat.<br>Others not tested |
| **Form/Format** | 200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml. |
| **Specificity** | Recognizes a sialoglycoprotein of 27-32kDa, 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 32kDa (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. This MAb shows a very similar reactivity to other CD99 MAbs (e.g. O13, 12E7, or HBA-71) and is excellent for immunohistochemical staining of formalin-fixed, paraffin-embedded tissues. |
| **Preparation and Storage** | Antibody with azide - store at 2 to 8 degree C. Antibody without azide - store at -20 to -80 degree C. Antibody is stable for 24 months. Non-hazardous. No MSDS required. |
| **Molecular Weight** | 27-32kDa |
| **OMIM** | 313470 |
| **3D Structure** | ModBase 3D Structure for P14209 |
| **Cellular Localization** | Cell Surface |
| **Immunogen** | Purified E-rosette forming cells from human peripheral blood lymphocytes |
| **Hu-Chromosome Location** | Xp22.33 |
| **Positive Control** | Pancreas or Ewing's sarcoma |
| **Applications Tested/Suitable for anti-CD99 antibody** | Flow Cytometry (FC/FACS), Immunofluorescence (IF), Immunohistochemistry (IHC) Formalin |
| **Application Notes for anti-CD99 antibody** | Flow Cytometry (5-10ul/million cells in 0.1ml)<br>Immunofluorescence (0.5-1ug/ml)<br>Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 min at Room Temp) (Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes) |

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| **Related Product Information for anti-CD99 antibody** | MBS439059 is an antibody targeting CD99. Also known as CD99 / MIC2 (Ewing's Sarcoma Marker) Mouse Monoclonal Antibody. Reactive in Human, Rat.<br>Others not tested. Host: Mouse. |
| **Product References and Citations for anti-CD99 antibody** | Sandrin MS, et. al. Immunogenetics, 1992, 35(4):283-5 |
| **Other Notes** | Small volumes of anti-CD99 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |



**Immunohistochemistry (IHC) of anti-CD99 antibody**
Formalin-fixed, paraffin-embedded human Ewing's Sarcoma stained with CD99 Monoclonal Antibody (HO36-1.1).



**Immunohistochemistry (IHC) of anti-CD99 antibody**
Formalin-fixed, paraffin-embedded human Testicular Carcinoma stained with CD99 Monoclonal Antibody (HO36-1.1).

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD99. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 171543879 |
| **NCBI GeneID** | 4267 |
| **NCBI Accession #** | NP_001116370.1 |
| **UniProt Primary Accession #** | P14209 |
| **UniProt Secondary Accession #** | O00518; Q6ICV7; A6NIW1 |
| **UniProt Related Accession #** | P14209 |
| **GenBank Nucleotide #** | NM_001122898.2 |
| **NCBI Official Full Name** | CD99 antigen isoform b |
| **NCBI Official Synonym Full Names** | CD99 molecule |
| **NCBI Official Symbol** | CD99 |
| **NCBI Official Synonym Symbols** | MIC2; HBA71; MIC2X; MIC2Y; MSK5X |
| **UniProt Protein Name** | CD99 antigen |
| **UniProt Synonym Protein Names** | 12E7; E2 antigen; Protein MIC2; T-cell surface glycoprotein E2; CD_antigen: CD99 |
| **Protein Family** | CD99 antigen |
| **UniProt Gene Name** | CD99 |
| **UniProt Synonym Gene Names** | MIC2; MIC2X; MIC2Y |
| **UniProt Entry Name** | CD99_HUMAN |
| **NCBI Protein Information** | CD99 antigen |

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| **NCBI Summary for CD99** | The protein encoded by this gene is a cell surface glycoprotein involved in leukocyte migration, T-cell adhesion, ganglioside GM1 and transmembrane protein transport, and T-cell death by a caspase-independent pathway. In addition, the encoded protein may have the ability to rearrange the actin cytoskeleton and may also act as an oncosuppressor in osteosarcoma. This gene is found in the pseudoautosomal region of chromosomes X and Y and escapes X-chromosome inactivation. There is a related pseudogene located immediately adjacent to this locus. [provided by RefSeq, Mar 2016] |
| **UniProt Comments for CD99** | CD99: Involved in T-cell adhesion processes and in spontaneous rosette formation with erythrocytes. Plays a role in a late step of leukocyte extravasation helping leukocytes to overcome the endothelial basement membrane. Acts at the same site as, but independently of, PECAM1. Involved in T-cell adhesion processes. Belongs to the CD99 family. 2 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Membrane protein, integral<br><br>Chromosomal Location of Human Ortholog: Xp22.32 and Yp11.3<br><br>Cellular Component: cytoplasm; focal adhesion; integral to plasma membrane; plasma membrane |
| **Research Articles on CD99** | **1.** Our results suggest that the CD34/CD25/CD123/CD99(+) LAIP is strictly associated with FLT3-ITD-positive cells. |
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