

## Mouse anti-Human, Mouse MUC1 / EMA /CD227 Monoclonal Antibody | anti-MUC1 antibody

MUC1 / EMA /CD227 (Epithelial Marker) Mouse Monoclonal Antibody

| CATALOG # | HOST  | REACTIVITY   | APPLICATIONS                                                                      |
|-----------|-------|--------------|-----------------------------------------------------------------------------------|
| AAA62847  | Mouse | Human, Mouse | Immunohistochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA |

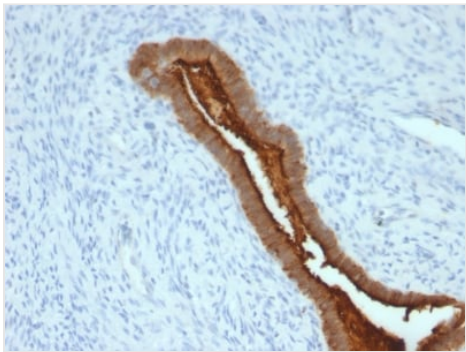
### PRODUCT SYNONYMS

MUC1 / EMA /CD227; Monoclonal Antibody; MUC1 / EMA /CD227 (Epithelial Marker) Mouse Monoclonal Antibody; Breast carcinoma-associated antigen DF3; CA15-3; Carcinoma-associated mucin Episialin; Epithelial Membrane Antigen; H23AG; KL-6; MAM6; MUC-1; MUC-1/SEC; MUC-1/X; MUC1-alpha; MUC1-beta; MUC1-CT; MUC1-NT; MUC1/ZD; Mucin 1 cell surface associated; Mucin-1 subunit beta; Peanut-reactive urinary mucin; PEM; PEMT; Polymorphic epithelial mucin; PUM; Tumor-associated epithelial membrane antigen; anti-MUC1 antibody

### PRODUCT SPECIFICATIONS

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|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Reactivity                                     | Human, Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Clonality                                      | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Isotype                                        | IgG1, kappa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Clone Number                                   | SPM492                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Specificity                                    | This MAb reacts with MUC1. The dominant epitope of this MAb has not yet been determined. MUC1 is a large cell surface mucin glycoprotein expressed by most glandular and ductal epithelial cells and some hematopoietic cell lineages. It is expressed on most secretory epithelium, including mammary gland and some hematopoietic cells. It is expressed abundantly in lactating mammary glands and over expressed abundantly in >90% breast carcinomas and metastases. Transgenic MUC1 has been shown to associate with all four c-erbB receptors and localize with c-erbB1 (EGFR) in lactating glands. The MUC1 gene contains seven exons and produces several different alternatively spliced variants. The major expressed form of MUC1 uses all seven exons and is a type 1 transmembrane protein with a large extracellular tandem repeat domain. The tandem repeat domain is highly O glycosylated and alterations in glycosylation have been shown in epithelial cancer cells. Antibody to EMA is useful as a pan-epithelial marker for detecting early metastatic loci of carcinoma in bone marrow or liver. |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Sequence Length                                | 264                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Applicable Applications for anti-MUC1 antibody | IHC (Immunohistochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cellular Localization                          | Cytoplasmic and Cell Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Immunogen                                      | Breast Cancer Cell line ZR75-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Hu-Chromosome Location                         | 1q22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Positive Control                               | MCF-7 or MDA-231 cells. Breast, colon, ovarian, endometrial carcinoma.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Preparation and Storage                        | Antibody with azide - store at 2-8°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

IMAGES



IHC (Immunohistochemistry)  
Formalin-fixed, paraffin-embedded human Endometrial Carcinoma stained with EMA  
Monoclonal Antibody (SPM492).

ADDITIONAL INFORMATION

|            |                                                                                                                                                                                                                                                                             |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| References | Hilkens, J., Buijs, F., Hilgers, J., Hageman, P., Calafat, J., Sonnenberg, A. and van der Valk, M. 1984. Monoclonal antibodies against human milk-fat globule membranes detecting differentiation antigens of the mammary gland and its tumors. Int. J. Cancer 34: 197-206. |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                               |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 67189007                                                                                                                      |
| NCBI GeneID                      | 4582                                                                                                                          |
| NCBI Accession #                 | NP_001018016.1                                                                                                                |
| NCBI GenBank Nucleotide #        | NM_001018016.2                                                                                                                |
| UniProt Accession #              | P15941; P13931; P15942; P17626; A5YRV1; A6ZID9; A6ZIE0; B1AVQ8; B1AVR0; B6ECA1; E7ESE5; E7EUG9                                |
| Molecular Weight                 | 265-400kDa                                                                                                                    |
| NCBI Official Full Name          | mucin-1 isoform 2                                                                                                             |
| NCBI Official Synonym Full Names | mucin 1, cell surface associated                                                                                              |
| NCBI Official Symbol             | MUC1                                                                                                                          |
| NCBI Official Synonym Symbols    | EMA; MCD; PEM; PUM; KL-6; MAM6; MCKD; PEMT; CD227; H23AG; MCKD1; MUC-1; ADMCKD; ADMCKD1; CA 15-3; MUC-1/X; MUC1/ZD; MUC-1/SEC |
| NCBI Protein Information         | mucin-1                                                                                                                       |
| UniProt Protein Name             | Mucin-1                                                                                                                       |
| UniProt Gene Name                | MUC1                                                                                                                          |
| UniProt Synonym Gene Names       | PUM; MUC-1; CA 15-3; KL-6; PUM; PEM; EMA; MUC1-NT; MUC1-alpha; MUC1-beta                                                      |
| UniProt Entry Name               | MUC1_HUMAN                                                                                                                    |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.