

## Product datasheet for **TA385920**

### EMA (MUC1) Rabbit Monoclonal Antibody [Clone ID: MC5]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	MC5
Applications:	ELISA, IHC, IP, WB
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG, kappa
Clonality:	Monoclonal
Immunogen:	Human breast epithelial mucin.



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<b>Specificity:</b>	<p>This antibody is specific for the amino acid sequence DTRPAP of MUC1. The alpha subunit of MUC1 has cell adhesive properties. Can act both as an adhesion and an anti-adhesion protein. May provide a protective layer on epithelial cells against bacterial and enzyme attack. The beta subunit of MUC-1 contains a C-terminal domain which is involved in cell signaling, through phosphorylations and protein-protein interactions. Modulates signaling in ERK, SRC and NF-kappa-B pathways. In activated T-cells, influences directly or indirectly the Ras/MAPK pathway. Promotes tumor progression. Regulates TP53-mediated transcription and determines cell fate in the genotoxic stress response. Binds, together with KLF4, the PE21 promoter element of TP53 and represses TP53 activity.</p> <p>In an attempt to develop a reliable way to detect breast cancer, immunoprecipitation was performed on NPGP from HMFG using the mouse version of this antibody bound to Sepharose 4B. Furthermore, this antibody was tested in an radioimmunoassay experiment on NPGP using the mouse version of this antibody (Ceriani et al, 1992; pmid:1377884). The epitope of this antibody was mapped by ELISA using small peptides - the murine version of this antibody was used (Petraou et al, 1998 ; pmid:9422085). This antibody was used to identify cells expressing the MUC1 protein. This was accomplished by using the mouse version of this antibody on cell lysates of cell transfected with the MUC1 protein in a western blot analysis (Rubinstein et al, 2006; pmid:17145869). To compare the diagnostic usefulness of different antibodies, the mouse version of this antibody was used for immunohistochemistry on cell pellets from pleural fluid specimens (Creaney et al, 2008; pmid:18454162). While developing an antibody against the alpha/beta junction of MUC1 the mouse version of this antibody was used for western blot on the MUC1 protein (Rubinstein et al, 2008; pmid:18821582). While assessing a panel of 56 anti MUC1 antibodies for their ability to detect cancer the mouse version of this antibody was used for an immunoradiometric assay on a serum made from sera from 10 different patients with breast, ovarian or colon cancer (Norum et al, 1998; pmid:9422099). To more accurately determine the epitope of this antibody, an ELISA was performed using the murine version of this antibody on different small peptides from the MUC1 protein (Karsten et al, 2004; pmid:15115750).</p>
<b>Formulation:</b>	PBS with 0.02% Proclin 300.
<b>Concentration:</b>	lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
<b>Stability:</b>	3 years from dispatch.
<b>Gene Name:</b>	mucin 1, cell surface associated
<b>Database Link:</b>	<a href="#">Entrez Gene 4582 Human P15941</a>
<b>Synonyms:</b>	CD227; EMA; episialin; H23AG; KL-6; MAM6; MUC-1; MUC-1/SEC; MUC-1/X; MUC1/ZD; PEM; PEMT; PUM

**Note:** This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG2 format, for improved compatibility with existing reagents, assays and techniques.

**Product images:**



Western Blot using anti-breast epithelial mucin antibody Mc5 (TA385920) MCF7 cell lysate (35µg protein in RIPA buffer) was resolved on a 10% SDS PAGE gel and blots probed with the chimeric rabbit IgG version of Mc5 (TA385920) at 2 µg/ml before detection using an anti-rabbit secondary antibody. A primary incubation of 1h was used and protein was detected by chemiluminescence. The expected running size for unmodified breast epithelial mucin is 122.1kDa, but this protein is heavily glycosylated and lipidated at several positions leading to the observed running size.