

## Product datasheet for **TA385820**

### EMA (MUC1) Rabbit Monoclonal Antibody [Clone ID: SM3]

#### Product data:

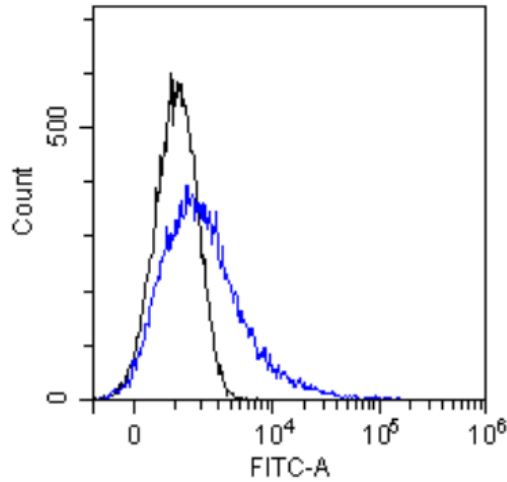
Product Type:	Primary Antibodies
Clone Name:	SM3
Applications:	ELISA, FC, IHC
Reactivity:	Human
Host:	Rabbit
Clonality:	Monoclonal
Immunogen:	Hydrogen fluoride deglycosylated milk mucin.
Specificity:	Recognises the under-glycosylated form of human MUC1, a marker of tumours.

This antibody binds to mucin, a heavily glycosylated protein produced by epithelial cells that forms gels.

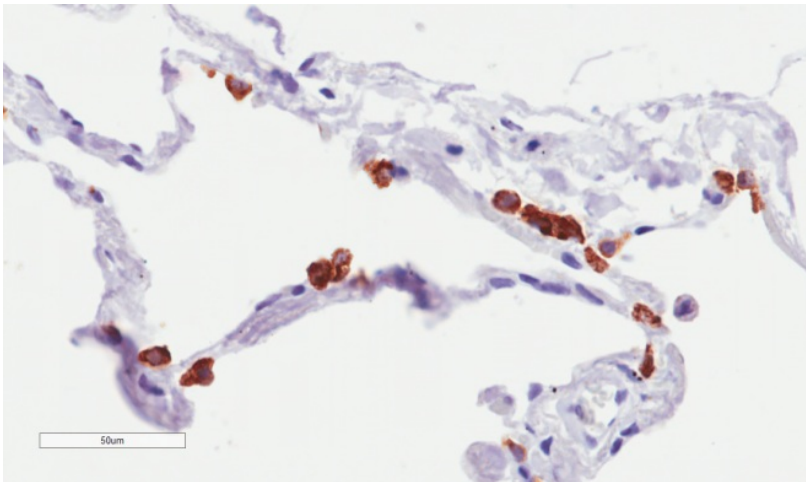
Formulation:	PBS with 0.02% Proclin 300.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
Stability:	3 years from dispatch.
Gene Name:	mucin 1, cell surface associated
Database Link:	<a href="#">Entrez Gene 4582 Human P15941</a>
Synonyms:	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 murine IgG1 format, for improved compatibility with existing reagents, assays and techniques.



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**Product images:**

Flow-cytometry using the anti-MUC1 SM3 (TA385820) MCF-7 cells were stained with unimmunized rabbit IgG antibody (black line) or the rabbit-chimeric version of SM3 (TA385820, blue line) at a concentration of 10 µg/ml for 30 mins at RT. After washing, bound antibody was detected using anti-rabbit IgG JK (FITC-conjugate) antibody at 2 µg/ml and cells analyzed on a FACSCanto flow-cytometer.



Immunohistochemical staining of human lung tissue using anti-MUC1 antibody (TA385820) SM3 Anti-MUC1 (Mucin-1) staining of paraffin embedded human lung tissue using the rabbit-chimeric version of SM3 (TA385820). Antigen retrieval was achieved by microwaving in citrate buffer (pH6), followed by blocking with protein block serum-free buffer. Primary antibody incubation with TA385820 was carried out at 4 µg/ml for 30 minutes. Samples were then incubated with an anti-rabbit IgG HRP secondary antibody for 20 mins followed by DAB (3,3'-diaminobenzidine), and counter-staining with haematoxylin. Staining of type II pneumocytes may be observed. Recommended concentration, 2-4 µg/ml.



Western Blot using anti-MUC1 antibody SM3 (TA385820) MCF-7 cell lysate (35 $\mu$ g protein in RIPA buffer) were resolved on a 10% SDS PAGE gel and blots probed with the chimeric rabbit version of SM3 (TA385820) at 1  $\mu$ g/ml before detection using an anti-rabbit secondary antibody. A primary incubation of 1h was used and protein was detected by chemiluminescence. The predicted band size for unmodified MUC1 is 122.1kDa, though in breast cancer cell lines like MCF-7 MUC1 can be up to 90% glycosylated (c.f. Mueller et al. PMID: 10373415; T47D cells) and expected band sizes are ~250-300kDa. Thus the two bands likely represent processed (>250kDa) and unprocessed (~121kDa) populations of the protein. TA385820 successfully detected human MUC1 in MCF-7 breast cancer cells.