

## Monoclonal Antibody to CD227 / Mucin-1 - FITC -

<b>Alternate names:</b>	Breast carcinoma-associated antigen DF3, CA 15-3, Carcinoma-associated mucin, DF3, EMA, Episialin, H23AG, MUC-1, PEMT, PUM, Peanut-reactive urinary mucin, Polymorphic epithelial mucin, Tumor-associated epithelial membrane antigen, Tumor-associated mucin
<b>Catalog No.:</b>	SM1708F
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.1 mg/ml
<b>Background:</b>	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 overexpressed abundantly in >90% breast carcinomas and metastases. Transgenic MUC1 has been shown to associate with all four cebB receptors and localize with 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.
<b>Uniprot ID:</b>	<a href="#">P15941</a>
<b>NCBI:</b>	<a href="#">NP_001018016.1</a>
<b>GeneID:</b>	<a href="#">4582</a>
<b>Host / Isotype:</b>	Mouse / IgG3
<b>Clone:</b>	C595
<b>Immunogen:</b>	Urinary MUC-1 mucin. Spleen cells from immunised Balb/c mice were fused with cells of a mouse myeloma cell line.
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction. <b>Purification:</b> Affinity Chromatography on Protein G <b>Buffer System:</b> PBS, pH7.4 containing 0.09% Sodium Aziden as preservative and 1% BSA as stabilizer. <b>Label:</b> FITC – Fluorescein Isothiocyanate Isomer 1
<b>Applications:</b>	Flow Cytometry: Use 10 µl of neat-1/10 diluted antibody to label 10e6 cells in 100 µl. Immunofluorescence. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

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Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.

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**Specificity:** This antibody recognises CD227, the breast cancer associated mucin encoded by the Muc-1 gene. In normal tissues expression is restricted to specialised glandular epithelial cells. Clone C595 recognises the peptide epitope ARG-PRO-ALA-PRO within the protein core of the Mucin.

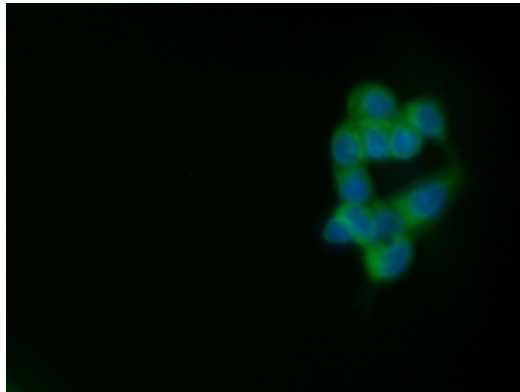
**Species:** Human.  
Other species not tested.

**Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. This product is photosensitive and should be protected from light. Shelf life: one year from despatch.

**General References:**

1. Price, M.R. et al. (1990) Immunological and structural features of the protein core of human polymorphic epithelial mucin. *Mol. Immunol.* 27: 795-802.
2. Price, M.R. et al. (1990) C595 - a monoclonal antibody against the protein core of human urinary epithelial mucin commonly expressed in breast carcinomas. *Br. J. Cancer.* 61: 681-686.
3. Price, M.R. et al. (1991) Purification of anti-epithelial mucin monoclonal antibodies by epitope affinity chromatography. *J. Immunol. Methods* 139: 83-90.
4. Denton, G. et al. (1995) Primary sequence determination and molecular modelling of the variable region of an anti-MUC1 mucin monoclonal antibody. *Eur. J. Cancer* 31A: 214-221.
5. Denton, G. et al. (1997) Production and characterization of a recombinant anti-Muc 1 scFv reactive with human carcinomas. *Br. J. Cancer.* 76: 614-621.

**Pictures:**



Immunofluorescence staining of MCF-7 cells with Mouse anti Human CD227:FITC (SM1708F) (green), nuclei are counterstained with DAPI (blue)

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