

MUC1 recombinant antibody

Anti-MUC1 [SM3]

CATALOG # AAA71969	REACTIVITY Human	APPLICATIONS Flow Cytometry, Functional Assay, ELISA
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PRODUCT SYNONYMS

MUC1; Monoclonal Recombinant Antibody; Anti-MUC1 [SM3]; Mucin; MUC1 recombinant antibody

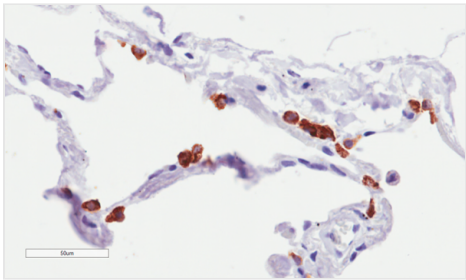
PRODUCT SPECIFICATIONS

Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG, lambda
Clone Number	SM3
Specificity	Recognizes the under-glycosylated form of human MUC1, a marker of tumours.
Purity/Purification	Purified Protein A Affinity Purified
Sequence Length	255
Applicable Applications for MUC1 recombinant antibody	FCM/FACS (Flow Cytometry), Activity Assay, ELISA
Immunogen	Hydrogen fluoride deglycosylated milk mucin.
Antigen	MUC1
Antigen Description	Hydrogen fluoride deglycosylated milk mucin.
Buffer Composition	PBS only with 0.02% Proclin 300.
Chimeric Use Statement	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.
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.



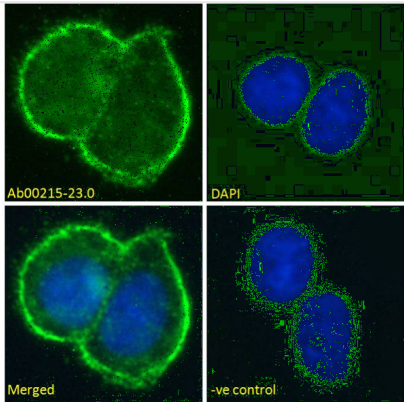
WB (Western Blot)

Western Blot using anti-MUC1 antibody SM3 MCF-7 cell lysate (35ug protein in RIPA buffer) were resolved on a 10% SDS PAGE gel and blots probed with the chimeric rabbit version of SM3 at 1 ug/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. successfully detected human MUC1 in MCF-7 breast cancer cells.



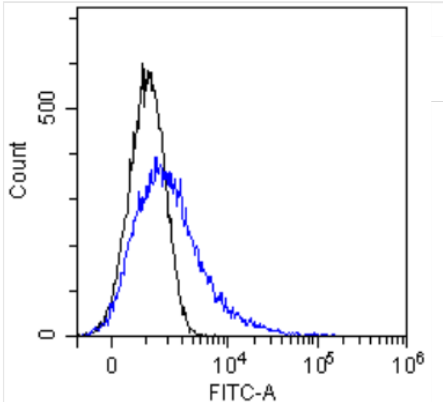
IHC (Immunohistochemistry)

Immunohistochemical staining of human lung tissue using anti-MUC1 antibody SM3 Anti-MUC1 (Mucin-1) staining of paraffin embedded human lung tissue using the rabbit-chimeric version of SM3 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 ug/ml.



IF (Immunofluorescence)

Immunofluorescence staining of fixed MCF-7 cells with anti-MUC1 antibody SM3 Immunofluorescence analysis of unpermeabilised paraformaldehyde fixed MCF-7 cells on ShifitTM coverslips stained with the chimeric rabbit version of SM3 at 10 ug/ml for 1h followed by Alexa Fluor 488 secondary antibody (1 ug/ml), showing clear membrane staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom; DAPI, merged channels and an isotype control. The isotype control was stained with unimmunised rabbit IgG followed by Alexa Fluor 488 secondary antibody.



FCM/FACS (Flow Cytometry)

Flow-cytometry using the anti-MUC1 SM3 MCF-7 cells were stained with unimmunized rabbit IgG antibody (black line) or the rabbit-chimeric version of SM3 at a concentration of 10 ug/ml for 30 mins at RT. After washing, bound antibody was detected using anti-rabbit IgG JK (FITC-conjugate) antibody (129936) at 2 ug/ml and cells analyzed on a FACSCanto flow-cytometer.

ADDITIONAL INFORMATION

Related Product Information for MUC1 recombinant antibody	Recombinant monoclonal antibody to MUC1. Manufactured using Recombinant Platform with variable regions (i.e. specificity) from the hybridoma SM3.
Product Categories/Family for MUC1 recombinant antibody	Immunology; Cancer
References	Burchell J, Gendler S, Taylor-Papadimitriou J, Girling A, Lewis A, Millis R, Lampert D. Cancer Res.1987 Oct 15;47(20):5476-82. PMID:2443241

NCBI AND UNIPROT INFORMATION

NCBI GI #	541680
NCBI GeneID	4582

UniProt Accession #	P15941; P13931; P15942; P17626; A5YRV1; A6ZID9; A6ZIE0; B1AVQ8; B1AVR0; B6ECA1; E7ESE5; E7EUG9
Molecular Weight	28,297 Da
NCBI Official Full Name	MUC1
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

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.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/muc1-recombinant-antibody-clone-sm3-flow-cytometry-elisa/71969>