

anti-Human MUC1 Antibody | anti-MUC1 antibody

Anti-MUC1 [12D10]

CATALOG #	REACTIVITY	APPLICATIONS
AAA72325	Human	Flow Cytometry, Functional Assay, ELISA

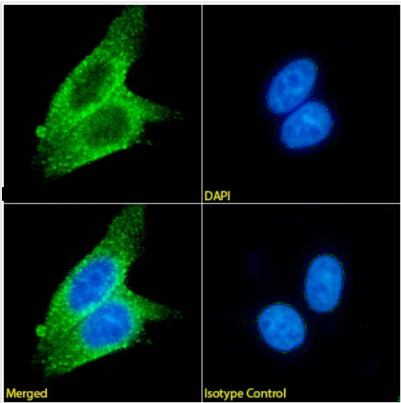
PRODUCT SYNONYMS

MUC1; Anti-MUC1 [12D10]; Mucin-1; Breast carcinoma-associated antigen DF3; Cancer antigen 15-3; CA 15-3; Carcinoma-associated mucin; Episialin; H23AG; Krebs von den Lungen-6; KL-6; PEMT; Peanut-reactive urinary mucin; PUM; Polymorphic epithelial mucin; PEM; Tumor-associated epithelial membrane antigen; EMA; Tumor-associated mucin; CD227; anti-MUC1 antibody

PRODUCT SPECIFICATIONS

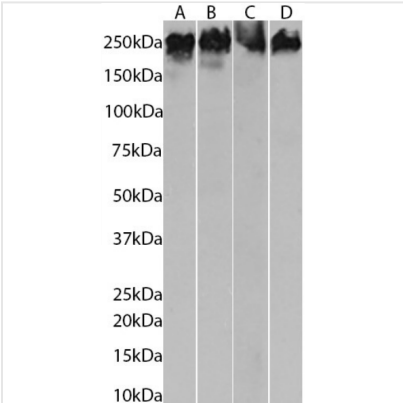
Reactivity	Human
Isotype	Mouse IgG1 kappa
Clone Number	12D10
Specificity	This antibody is specific for the unsubstituted O-6 position of the Neu5Ac residue of MUC1. The alpha subunit of MUC1 has cell adhesive properties. Can act both as an adhesion and an anti-adhesion protein. May provide a protective 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.
Purity/Purification	Purified. Protein A affinity purified
Form/Format	PBS with 0.02% Proclin 300.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MUC1 antibody	SPR (Surface Plasmon Resonance), FCM/FACS (Flow Cytometry), ELISA
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.

IMAGES



IF (Immunofluorescence)

Immunofluorescence staining of MCF7 cells with anti-MUC1 antibody 12D10 . Immunofluorescence analysis of paraformaldehyde fixed MCF7 cells on Shi-fix™ coverslips stained with the chimeric rabbit IgG version of 12D10 (1:100 dilution) for 1h followed by Alexa Fluor 488 secondary antibody (1:1000 dilution), showing cytoplasmic 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 an unknown specificity antibody followed by staining with Alexa Fluor 488 secondary antibody.



WB (Western Blot)

Western blot using anti-MUC1 antibody 12D10 . A431 (A) (0.1ug/ml), HeLa (B) (0.1ug/ml), MCF7 (C) (0.001ug/ml), and human breast cancer (D) (0.0003ug/ml) tissue lysate (35ug protein in RIPA buffer) were resolved via SDS-PAGE, and the subsequent blots were probed with the chimeric rabbit version of 12D10 at the mentioned respective concentrations before detection using an anti-rabbit secondary antibody. A primary incubation of 1 hour was used, and proteins were detected by chemiluminescence.

ADDITIONAL INFORMATION

Related Product Information for anti-MUC1 antibody	This antibody was raised by immunizing female Balb/c mice with MUC1 antigen. . In this study, using an MUC1 glycopeptide library, we established two novel anti-MUC1 monoclonal antibodies (1B2 and 12D10) with designed carbohydrate specificities.
Product Categories/Family for anti-MUC1 antibody	cancer; oncology
References	Naito et al. ACS Omega. 2017 Nov 30;2(11):7493-7505.

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; Q0VAP6; Q14128; Q14876; Q16437; Q16442; Q16615; B1AVQ8; B1AVR0
Molecular Weight	122,102 Da
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; PEM; PUM; KL-6; MAM6; PEMT; CD227; H23AG; MUC-1; CA 15-3; MUC-1/X; MUC1/ZD; MUC-1/SEC
NCBI Protein Information	mucin-1; episialin; DF3 antigen; H23 antigen; cancer antigen 15-3; krebs von den Lungen-6; mucin 1, transmembrane; tumor-associated mucin; carcinoma-associated mucin; polymorphic epithelial mucin; peanut-reactive urinary mucin; tumor associated epithelial
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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/human-antibody/muc1/72325>