

MUC1 recombinant antibody

Anti-MUC1 [HMFG2]

CATALOG # AAA71976	REACTIVITY Human	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

MUC1; Monoclonal Recombinant Antibody; Anti-MUC1 [HMFG2]; Muc-1; MUC1 recombinant antibody

PRODUCT SPECIFICATIONS

Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG, lambda
Clone Number	HMFG2
Specificity	This antibody Recognizes MUC1, a tumor associated antigen which is expressed in>90% ovarian carcinomas. This antigen is a high molecular weight (M, 80,000-200,000)glycoprotein.
Purity/Purification	Purified Protein A Affinity Purified
Sequence Length	255
Applicable Applications for MUC1 recombinant antibody	ELISA, IHC (Immunohistochemistry)
Immunogen	High-MW glycoprotein of the human milk fat globule
Antigen	MUC1
Antigen Description	High-MW glycoprotein of the human milk fat globule.
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 Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.
Publication Note	Describes the generation and initial characterisation of the specificity of this antibody to breast cancer cells.
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.

IMAGES



WB (Western Blot)

Western Blot using anti-MUC1 antibody HMFG2 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 HMFG2 at 0.1 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 (Immunohistochemisry)

Immunohistochemical staining of human lung tissue using anti-MUC1 antibody HMFG2 Anti-MUC1 (Mucin-1) staining of paraffin embedded human lung tissue using the rabbit-chimeric version of HMFG2 for 20 mins followed by DAB (3,3'-diaminobenzidine), and counter-staining with haemotoxylin. Strong staining of type II pneumocytes may be observed. Recommended concentration, 1-2 ug/ml.



IF (Immunofluorescence)

Immunofluorescence staining of fixed MCF-7 cells with anti-MUC1 antibody HMFG2 Immunofluorescence analysis of unpermeabilisd paraformaldehyde fixed MCF-7 cells on Shi-fix™ coverslips stained with the chimeric rabbit version of HMFG2 at 10 ug/ml for 1h followed by Alexa Fluor 488 secondary antibody (1 ug/ml), showing 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 an anti-Fluorescein antibody followed by Alexa Fluor 488 secondary antibody.



FCM/FACS (Flow Cytometry)

Flow-cytometry using the anti-MUC1 antibody HMFG2 MCF-7 cells were stained with unimmunized rabbit IgG antibody (black line) or the rabbit-chimeric version of HMFG2 at a concentration of 10 ug/ml for 30 mins at RT. After washing, bound antibody was detected using an 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 HMFG2.
Product Categories/Family for MUC1 recombinant antibody	Cancer; Imaging
References	Taylor-Papadimitriou Int J Cancer. 1981 Jul 15;28(1):17-21. PMID:7309278

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-hmfg2-immunohistochemistry-elisa/71976>