Datasheet for ABIN5668229

Recombinant anti-MUC1 antibody

3 Images

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Overview

Quantity:	200 µg
Target:	MUC1
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Chimeric
Conjugate:	This MUC1 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), ELISA, BioImaging (BI)

Product Details

Purpose:	Anti-MUC1 [HMFG2], Rabbit IgG, lambda
Immunogen:	High-MW glycoprotein of the human milk fat globule.
Clone:	HMFG2
Isotype:	IgG lambda
Specificity:	This antibody recognises 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.
Characteristics:	Original Species of Ab: Mouse Original Format of Ab: IgG1
Purification:	Protein A affinity purified

Target Details

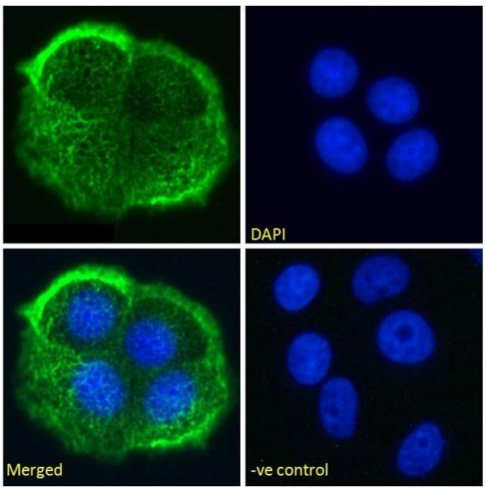
Target:	MUC1
Alternative Name:	MUC1 (MUC1 Products)
Background:	Muc-1
UniProt:	P15941
Pathways:	Negative Regulation of intrinsic apoptotic Signaling

Application Details

Application Notes:	This antibody binds to MUC1, an antigen widely expressed on breast cancer cells. This antibody antibodies react strongly with malignant epithelial cells but not with normal mesothelial or endothelial cells.
Comment:	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.
Restrictions:	For Research Use only

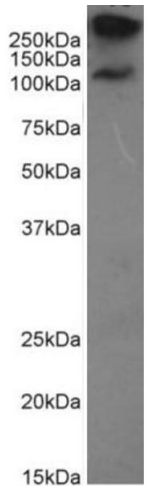
Handling

Concentration:	1 mg/mL
Buffer:	PBS with 0.02 % Proclin 300.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.



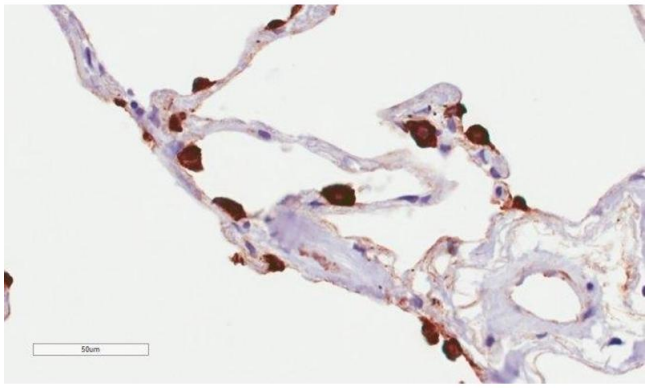
Immunofluorescence

Image 1. 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 (ABIN5668229) at 10 µg/mL for 1h followed by Alexa Fluor®488 secondary antibody (1 µg/mL), showing membrane staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom ABIN5668229, DAPI, merged channels and an isotype control. The isotype control was stained with an anti-Fluorescein antibody followed by Alexa Fluor®488 secondary antibody.



Western Blotting

Image 2. Western Blot using anti-MUC1 antibody HMFG2. MCF-7 cell lysate (35 µg protein in RIPA buffer) were resolved on a 10 % SDS PAGE gel and blots probed with the chimeric rabbit version of HMFG2 (ABIN5668229) at 0.1 µg/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 122.1 kDa, 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 ~250-300 kDa. Thus the two bands likely represent processed (>250 kDa) and unprocessed (~121 kDa) populations of the protein. ABIN5668229 successfully detected human MUC1 in MCF-7 breast cancer cells.



Immunohistochemistry

Image 3. 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 (ABIN5668229). Antigen retreival was acheived by microwaving in citrate buffer (pH 6), followed by blocking with protein block serum-free buffer (Dako, cat. #X0909). Primary antibody incubation with ABIN5668229 was carried out at 4 µg/mL for 30 minutes. Samples were then incubated with an anti-rabbit IgG HRP secondary antibody (Dako cat#K4009) 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 µg/mL.