Datasheet for ABIN5668231

Recombinant anti-MUC1 antibody

3 Images

Go to Product page

Overview

Quantity:	200 µg
Target:	MUC1
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Chimeric
Conjugate:	This MUC1 antibody is un-conjugated
Application:	ELISA, Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Purpose:	Anti-MUC1 [SM3], Rabbit IgG, lambda
Immunogen:	Hydrogen fluoride deglycosylated milk mucin.
Clone:	SM3
Isotype:	IgG lambda
Specificity:	Recognises the under-glycosylated form of human MUC1, a marker of tumours.
Characteristics:	Original Species of Ab: Mouse Original Format of Ab: IgG1
Purification:	Protein A affinity purified

Target Details

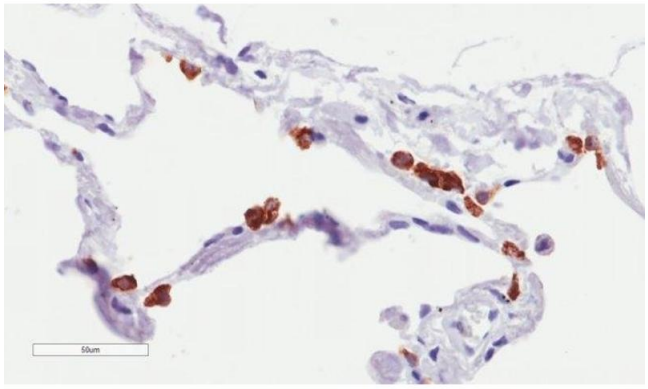
Target:	MUC1
Alternative Name:	MUC1 (MUC1 Products)
Background:	Mucin
UniProt:	P15941
Pathways:	Negative Regulation of intrinsic apoptotic Signaling

Application Details

Application Notes:	This antibody binds to mucin, a heavily glycosylated protein produced by epithelial cells that forms gels.
Comment:	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.
Restrictions:	For Research Use only

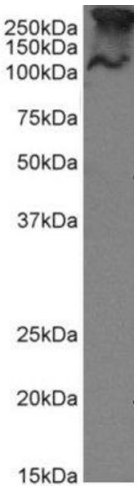
Handling

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.



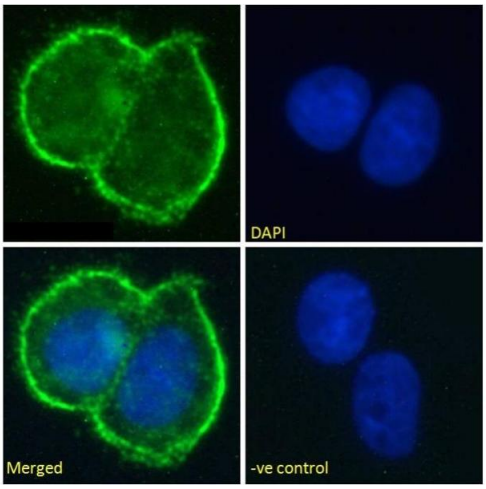
Immunohistochemistry

Image 1. 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 (ABIN5668231). 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 ABIN5668231 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. Staining of type II pneumocytes may be observed. Recommended concentration, 2-4 µg/mL.



Western Blotting

Image 2. Western Blot using anti-MUC1 antibody SM3 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 SM3 (ABIN5668231) at 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. ABIN5668231 successfully detected human MUC1 in MCF-7 breast cancer cells.



Immunofluorescence

Image 3. Immunofluorescence staining of fixed MCF-7 cells with anti-MUC1 antibody SM3. Immunofluorescence analysis of unpermeabilisd paraformaldehyde fixed MCF-7 cells on Shi-fix™ coverslips stained with the chimeric rabbit version of SM3 (ABIN5668231) at 10 µg/mL for 1h followed by Alexa Fluor®488 secondary antibody (1 µg/mL), showing clear membrane staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom, ABIN5668231, DAPI, merged channels and an isotype control. The isotype control was stained with unimmunised rabbit IgG followed by Alexa Fluor®488 secondary antibody.