abcam

ab230298

Anti-MUC1 antibody [HMFG1 (aka 1.10.F3)] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	HMFG1 (aka 1.10.F3)
Purification technique	Affinity purification Protein A
Epitope	This antibody recognizes a peptide epitope (PDTR) within the VNTR region of the extracellular domain of MUC1 (PubMed ID: PMC3021526).
Concentration	1.059 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/5000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-

Notes	-

Target data

See full target information MUC1

Function	The alpha subunit 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 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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Aliquoting information	Upon delivery aliquot
Storage information	Do Not Freeze

Notes

ab230298 is the carrier-free version of ab70475.
For a more comprehensive guide to this epitope of HMFG1 clone, we recommend the following publications;
Petrakou E et al. 1998: Epitope Mapping of Anti-MUC1 Mucin Protein Core Monoclonal Antibodies. Tumour Biology.PMID: 9422085
Verhoeyen ME et al. 1993: Construction of a reshaped HMFG1 antibody and comparison of its fine specificity with that of the parent mouse antibody. Immunology. PMID: 7682986

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

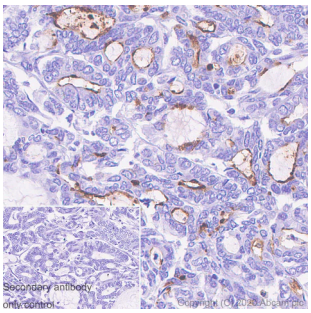
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

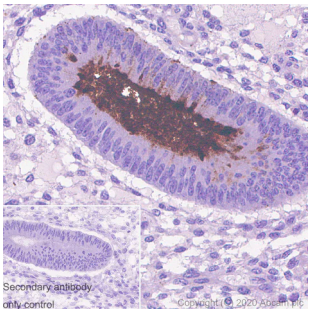
Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images



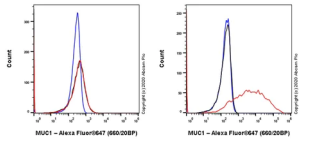
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC1 antibody [HMFG1 (aka 1.10.F3)] - BSA and Azide free (ab230298)

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (ab70475). Immunohistochemical analysis of paraffin-embedded Human endometrium carcinoma tissues labeling MUC1 with ab70475 at 1/5000 dilution followed by LeicaDS9800 (Bond™ Polymer Refine Detection). The section was incubated with ab70475 for 30 mins at room temperature and followed by mouse IgG antibody (ab125913, 1:1000) for 8 mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.



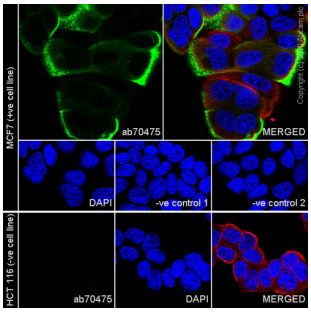
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Flow Cytometry - Anti-MUC1 antibody [HMFG1 (aka 1.10.F3)] - BSA and Azide free (ab230298)

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (ab70475). Flow Cytometry analysis of HCT 116 (Human colorectal carcinoma epithelial cell, Left) / MCF7 (Human breast adenocarcinoma epithelial cell, Right) cells stained for MUC1 using ab70475 at a 1/1000 dilution (0.1 µg) (Red) compared to Mouse monoclonal IgG - Isotype Control (Black) and cells without incubation with primary antibody and secondary antibody (Blue). Negative control; HCT 116. (PMID: 14998492)



Immunocytochemistry/ Immunofluorescence - Anti-MUC1 antibody [HMFG1 (aka 1.10.F3)] - BSA and Azide free (ab230298)

MUC1 Immunocytochemistry/ Immunofluorescence staining of HCT 116 (PMID: 14998492) using mouse Anti-MUC1 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (ab70475). MCF7/ HCT 116 cells were fixed in 4% PFA and permeabilized with 0.1% Triton X-100. Primary antibody, ab70475 at 1:100 was incubated overnight at 4° C, followed by AlexaFluor® 488-conjugated Goat anti-Mouse secondary antibody (ab150113) at 1/1000 dilution at RT for 45 min. ab179513 Anti-beta Tubulin, used as a counterstain at 1/200 dilution, was co-incubated with ab9509 overnight at 4° C, followed by Alexa Fluor® 594 Goat Anti-Rabbit secondary (ab150080) at 1/1000 dilution at RT for 45 min. Nucleus were

visualized using DAPI. Confocal image showing membranous and cytoplasmic staining in MCF7 cells. Negative control: HCT 116 (PMID: 14998492)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.