MUC2 Monoclonal Antibody (996/1)

Product Details	
Size	500 µL
Species Reactivity	Human, Mouse
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	996/1
Conjugate	Unconjugated
Immunogen	MUC2 tandem repeat peptide
Form	Liquid
Concentration	0.1 mg/mL
Amount	50 µg
Purification	Protein G
Storage buffer	PBS, pH 7.4, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4°C
RRID	AB_10975230

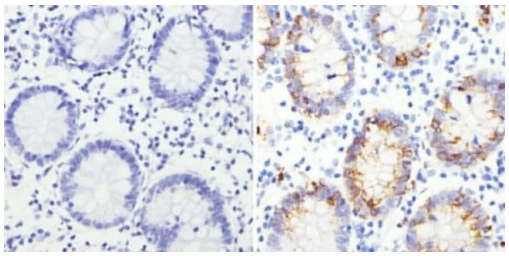
Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Immunohistochemistry (IHC)	-	9 Publications
Immunohistochemistry (Paraffin) (IHC (P))	10 µg/mL	1 Publication
Immunocytochemistry (ICC/IF)	-	9 Publications
Flow Cytometry (Flow)	0.5-1 µg/test	-

Product Specific Information

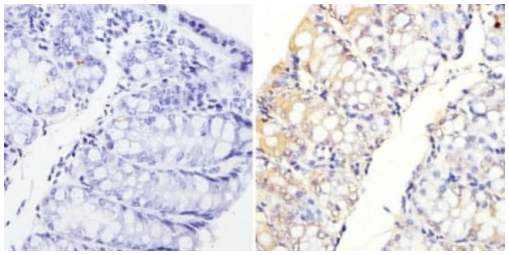
MA5-12345 targets Mucin 2 in IHC (P), ICC/IF and FACS applications and shows reactivity with human and mouse samples.

The MA5-12345 immunogen is mUC2 tandem repeat peptide.

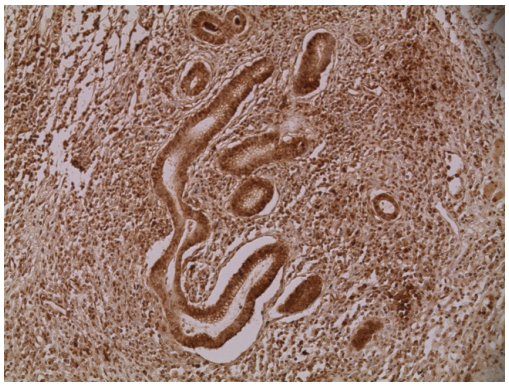
Product Images For MUC2 Monoclonal Antibody (996/1)



MUC2 Antibody (MA5-12345) in IHC (P)
Immunohistochemistry analysis of Mucin 2 showing staining in the cytoplasm of paraffin-embedded human colon tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Mucin 2 monoclonal antibody (Product # MA5-12345) diluted in 3% BSA-PBS at a dilution of 1:200 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



MUC2 Antibody (MA5-12345) in IHC (P)
Immunohistochemistry analysis of Mucin 2 showing staining in the cytoplasm of paraffin-embedded mouse colon tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Mucin 2 monoclonal antibody (Product # MA5-12345) diluted in 3% BSA-PBS at a dilution of 1:20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



MUC2 Antibody (MA5-12345) in IHC (P)
Immunohistochemical analysis of MUC2 showing staining of secreted protein on formalin-fixed paraffin-embedded human colon tissue. The section was pre-treated using xylene as a clearing agent, followed by heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. Enzyme activity was blocked on the tissue using 3% hydrogen peroxide for 10 minutes. The tissue was blocked in 10% Goat Serum for 30 minutes at room temperature, then probed with MUC2 Monoclonal Antibody (Product # MA5-12345) at 10 µg/mL dilution for 60 minutes at room temperature. HRP labeled Goat anti-Mouse IgG secondary antibody (Product # 31430) and DAB chromogen were used as the detection system, followed by counterstaining with hematoxylin. The slide was mounted with mounting media and the image was captured at 20X magnification.

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20 References

Western Blot (1)

Redox biology

Glutamine promotes O-GlcNAcylation of G6PD and inhibits AGR2 S-glutathionylation to maintain the intestinal mucus barrier in burned septic mice.

"MA5-12345 was used in Immunocytochemistry to demonstrate that the central mechanisms of glutamine in promoting MUC2 maturation and maintaining the intestinal mucus barrier are the enhancement of glucose-6-phosphate dehydrogenase (G6PD) glycosylation and inhibition of anterior gradient-2 (AGR2) S-glutathionylation."

Authors: Wu D,Su S,Zha X,Wei Y,Yang G,Huang Q,Yang Y,Xia L,Fan S,Peng X

Year
2023

Species
Human

Immunohistochemistry (9)

Nature biomedical engineering

Analysis of off-tumour toxicities of T-cell-engaging bispecific antibodies via donor-matched intestinal organoids and tumouroids.

"MA5-12345 was used in Immunohistochemistry to find that T-cell-engaging bispecific antibodies that target the epithelial cell-adhesion molecule led to apoptosis in healthy organoids in accordance with clinical observations, and that apoptosis is associated with T-cell activation, cytokine release and intra-epithelial T-cell infiltration."

Authors: Harter MF,Recaldin T,Gerard R,Avignon B,Bollen Y,Esposito C,Guja-Jarosz K,Kromer K,Filip A,Aubert J, Schneider A,Bacac M,Bscheider M,Stokar-Regenscheit N,Piscuoglio S,Beumer J,Gjorevski N

Year
2024

Species
Human

The Journal of clinical investigation

Human intestinal bitter taste receptors regulate innate immune responses and metabolic regulators in obesity.

"MA5-12345 was used in Immunohistochemistry-immunofluorescence to find that the effect of aloin on E. coli growth and on the release of the mucus glycoprotein CLCA1, identified via proteomics, was affected by TAS2R43 deletion polymorphisms and thus confirmed a role for TAS2R43."

Authors: Liszt KI,Wang Q,Farhadipour M,Segers A,Thijs T,Nys L,Deleus E,Van der Schueren B,Gerner C,Neuditschko B,Ceulemans LJ,Lannoo M,Tack J,Depoortere I

Year
2022

Species
Human

Dilution
1:200

View more IHC references on thermofisher.com

Immunohistochemistry (Paraffin) (1)

Frontiers in pharmacology

Metformin Exerts Anti-inflammatory and Mucus Barrier Protective Effects by Enriching Akkermansia muciniphila in Mice With Ulcerative Colitis.

"MA5-12345 was used in Immunohistochemistry to provide evidence that A. muciniphila as a probiotic has potential benefits for ulcerative colitis."

Authors: Ke H,Li F,Deng W,Li Z,Wang S,Lv P,Chen Y

Year
2021

Species
Mouse

Dilution
1:200

More applications with references on thermofisher.com

ICC/IF (9)