

Mouse anti-Human MUC4 Monoclonal Antibody | anti-MUC4 antibody

MUC4

CATALOG # AAA59295	HOST Mouse	REACTIVITY Human	APPLICATIONS Immunohistochemistry
------------------------------	----------------------	----------------------------	---

PRODUCT SYNONYMS

MUC4; Monoclonal Antibody; anti-MUC4 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Clone Number	8G7
Form/Format	MUC4 is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.
Sequence Length	7418
Applicable Applications for anti-MUC4 antibody	IHC (Immunohistochemistry)
Localization	Cytoplasmic
Control	Colon, Placenta, Breast, Cervix, Fallopian Tube, Liver, Kidney, Testis, Pancreatic Ductal Adenocarcinoma, Colorectal Adenocarcinoma
Precautions	1. For professional users only. Results should be interpreted by a qualified medical professional. 2. This product contains <0.1% sodium azide (NaN₃) as preservative. Ensure proper handling procedure are used with this reagent. handling procedures are used with this reagent. 3. Always wear personal protective equipment such as laboratory coat, goggles and gloves when handling reagents. 4. Dispose of unused solution with copious amount of water. 5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately. 6. Avoid contact with eyes. If contact occurs, flush with large quantities of water. 7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar). 8. For additional safety information refer to Safety Data Sheet for this product. 9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and AnimalMedical Laboratories".
Specimen Preparation	Paraffin sections: The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using ImmunoDNA Retriever with Citrate (Please Inquire), ImmunoDNA Retriever with EDTA or ImmunoDNA Digestor. See reverse side for complete protocol. Tissue should remain hydrated via use of Immuno/DNAWasher solutions. Frozen sections and cell preparations: The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

Staining Procedure

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Hydrophilic Plus Slides.
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate.
5. Any of three heating methods may be used:
 - a. TintoRetriever Pressure Cooker or Equivalent Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. TintoRetriever PT Module or Water Bath Method Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
 - c. Conventional Steamer Method Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IHC staining protocol. Wash slides between each step with ImmunoDNA washer solution.

Mounting Protocols

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter or organic solvent based resin such as PermaMounter please contact Technical Support.

Preparation and Storage

Store at 2-8°C (Control Slide: Store at 20-25°C)

IMAGES

Abbreviated Immunohistochemical Protocol

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min.
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate-Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain / Coverslip	Varies	Varies	Varies

Application Data



IHC (Immunohistochemistry)
IHC of MUC4 on an FFPE Colon Tissue

Antibody Type	Dilution	Volume/Qty
Tinto Prediluted	Ready-to-Use	3.0 mL
Tinto Prediluted	Ready-to-Use	7.0 mL
Tinto Prediluted	Ready-to-Use	15.0 mL
Concentrated	1: 50 - 1: 200	0.1 mL
Concentrated	1: 50 - 1: 200	0.5 mL
Concentrated	1: 50 - 1: 200	1.0 mL
Control Slides	Not Applicable	5 slides

Dilution Info

ADDITIONAL INFORMATION

Related Product Information for anti-MUC4 antibody	This antibody is intended for use in immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be preformed by a qualified medical professional. Mucin 4 (MUC4) is a mucin protein that in humans is encoded by the MUC4 gene. Like other mucins, MUC4 is a high-molecular weight glycoprotein. MUC4 belongs to the human mucin family that is membrane-anchored and can range in molecular weight from 550 to 930 kDa for the actual protein. MUC4 antibody labels normal epithelial cells in the trachea, GI tract and prostate, but not in the pancreas. MUC-4 has been found to play various roles in the progression of cancer, particularly due to its signaling and anti-adhesive properties which contribute to tumor development and metastasis. It is also found to play roles in other diseases such as endometriosis and inflammatory bowel disease. An abnormal expression of MUC4 has been reported in various carcinomas of the colon, pancreas, breast, and ovaries. Increased expression of MUC4 has been observed in pancreatic carcinoma and cervical squamous carcinoma. MUC4 is helpful in differentiating lung adenocarcinoma (positive) from malignant mesothelioma (negative). Additionally, MUC4 is useful in the identification of low-grade fibromyxoid sarcoma (LGFMS), and sclerosing epithelioid fibrosarcoma. MUC4 expression is also detected in the glandular component of biphasic synovial sarcomas.
--	--

NCBI AND UNIPROT INFORMATION

NCBI GI #	1016884653
NCBI GeneID	4585
NCBI Accession #	NP_001309397.1
NCBI GenBank Nucleotide #	NM_001322468.1
NCBI Official Full Name	mucin-4 isoform f
NCBI Official Synonym Full Names	mucin 4, cell surface associated
NCBI Official Symbol	MUC4
NCBI Official Synonym Symbols	ASGP; MUC-4; HSA276359
NCBI Protein Information	mucin-4
UniProt Protein Name	Mucin-4
UniProt Gene Name	MUC4
UniProt Synonym Gene Names	MUC-4; ASGP; ASGP-1; ASGP-2
UniProt Entry Name	MUC4_HUMAN

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.