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MUC5AC (Mucin 5AC / Gastric Mucin) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 2-11M1]
Catalog # AH11917

Product Information

Application	IF, FC, IHC-F
Primary Accession	P98088
Other Accession	4586, 534332
Reactivity	Human, Mouse, Monkey, Bovine, Cat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	2-11M1
Calculated MW	585570

Additional Information

Gene ID	4586
Other Names	Mucin-5AC, MUC-5AC, Gastric mucin, Lewis B blood group antigen, LeB, Major airway glycoprotein, Mucin-5 subtype AC, tracheobronchial, Tracheobronchial mucin, TBM, MUC5AC, MUC5
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-F~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	MUC5AC (Mucin 5AC / Gastric Mucin) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MUC5AC {ECO:0000303|PubMed:11535137, ECO:0000312|HGNC:HGNC:7515}
Function	Gel-forming glycoprotein of gastric and respiratory tract epithelia that protects the mucosa from infection and chemical damage by binding to inhaled microorganisms and particles that are subsequently removed by the mucociliary system (PubMed:14535999, PubMed:14718370). Interacts with H.pylori in the gastric epithelium, Barrett's esophagus as well as in gastric metaplasia of the duodenum (GMD) (PubMed:14535999).
Cellular Location	Secreted Highly expressed in surface mucosal cells of respiratory tract and stomach

Tissue Location	epithelia. Overexpressed in a number of carcinomas. Also expressed in Barrett's esophagus epithelium and in the proximal duodenum.

Background

This MAb recognizes the peptide core of gastric mucin M1 (recently identified as Mucin 5AC). Its epitope is located in the N-terminal cysteine rich part of the peptide core of MUC5AC, which is heavily glycosylated. Its epitope is destroyed by beta-mercaptoethanol but not by periodate treatment. MAb 2-11M1 reacts with the protein backbone exclusively; it only reacts with fully deglycosylated MUC5AC. Therefore, the material under test should also be fully deglycosylated. This can be achieved with standard periodate oxidation method. The success of the deglycosylation can be checked with routine PAS (Periodic Acid Shiff) staining. After deglycosylation, the preparation should no longer be stainable with PAS reagent. Only then 2-11M1 will react should MUC5AC be present. This mucin is present in primary ovarian mucinous cancer but usually absent in colorectal adenocarcinoma, thus showing an expression pattern opposite to MUC2. Together with a panel of antibodies, Anti-MUC5AC may be useful for differential identification of primary mucinous ovarian tumors from colon adenocarcinoma metastatic to the ovary. MUC5AC antibodies may also be useful for identification of intestinal metaplasia as well as in the identification of pancreatic carcinoma and pre-cancerous changes vs. normal pancreas.

References

Cancer Res.46: 3983-3989 (1986). | Biochem. J. 254: 185-193 (1988). | Int. J. Cancer 47: 304-310 (1991). | J. Immunol. Methods 149: 105-113 (1992