

# MUC5AC (Gastric Mucin); Clone 45M1 (Ready-To-Use)

Availability/Contents:	Item #	Volume
	A00124-0002	2 ml
	A00124-0007	7 ml
	A00124-0025	25 ml

## Description:

Species:	Mouse
Immunogen:	MUC5AC isolated from the fluid of an ovarian mucinous cyst from an O Le(a-b-) patient was used as immunogen to generate the MUC5AC antibody.
Clone:	45M1
Isotype:	Mouse IgG1, Kappa
Format:	This antibody has been pretitered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.
Specificity:	MUC5AC is expressed in airway and gastric epithelial cells and highly expressed in colorectal carcinomas.


**Background:**


MUC5AC (gastric mucin) belongs to the gel-forming mucin family of glycoproteins, the major components of the protective mucus layer on the mucosal surfaces of epithelial tissues. Mucus protects the tissue surface from mechanical damage, stabilizes the luminal microenvironment, and traps pathogens including bacteria and viruses for mucociliary clearance.

MUC5AC, like other family members, is differentially expressed. MUC5AC is expressed in airway and gastric epithelial cells and highly expressed in colorectal carcinomas. Although not normally detected by antibody in adult colon, MUC5AC is detectable in fetal colon. It is thought that positive MUC5AC antibody staining in colorectal cancer may be due to the resurgence of MUC5AC expression or the unmasking of an embryonic MUC5AC antibody reactive epitope during tumorigenesis.

There are qualitative and quantitative alterations of MUC5AC expression in association with various pathological conditions. For example, S dysenteriae infection induced MUC5AC expression in HT29 cells which was inhibited by polymyxin B pretreatment (Raja et al, 2011). Antibody studies identified elevated MUC5AC levels in benign and malignant gallbladder lesions (Xiong et al, 2011). On the other hand, MUC5AC expression is decreased or has abnormal glycosylation in the goblet cells of conjunctiva in a number of eye inflammatory conditions including Sjogren, Steven-Johnson and dry eye syndromes (Contreras-Ruiz, 2012).


The MUC5AC clone 45M1 antibody is widely used. For example, it has been used as part of an antibody panel to help distinguish esophageal adenocarcinoma (MUC5AC/+) from squamous cell carcinoma (MUC5AC/-) (DiMaio et al, 2012). The 45M1 antibody is cited in numerous scientific publications, researchers are encouraged to review the antibody specific published through a key word search on scholar.google.com.

Storage: 2° C  8° C



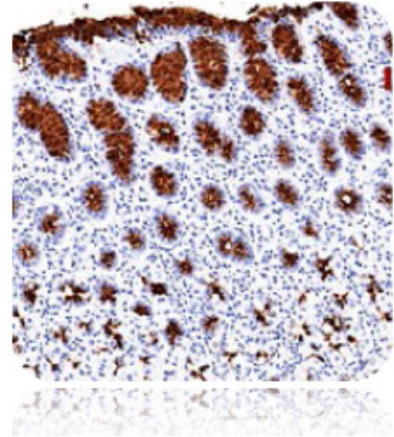
ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A.

 IVD

 EmergoEurope (31)(0) 70 345-8570  
Molsnstraat 15  
2513 BH Hague, The Netherlands

Species Reactivity: Human, Monkey, Cat, Chicken, Hedgehog, Mouse, Pig, Rabbit, Rat. Does not react with cow.  
 Positive Control: Stomach.  
 Cellular Localization: Cytoplasmic and cell surface.  
 Titer/Working Dilution: No further dilution is required.  
 Microbiological State: This product is not sterile.

**Uses/Limitations:** Not to be taken internally.  
 For In Vitro Diagnostic Use.  
 This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.  
 Do not use if reagent becomes cloudy.  
 Do not use past expiration date.  
 Use caution when handling reagents.  
 Non-Sterile.



Ordering Information and Current Pricing at [www.scytek.com](http://www.scytek.com)

**Procedure:**


1. **Tissue Section Pretreatment OPTIONAL:** Staining of formalin fixed, paraffin embedded tissue sections is enhanced by pretreatment with Citrate Plus (10X) HIER Solution (ScyTek catalog# CPL500).
2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
3. **Visualization:** For maximum staining intensity we recommend the “UltraTek HRP Anti-Polyvalent Lab Pack” (ScyTek catalog# UHP125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

**Precautions:** Contains Sodium Azide as a preservative (0.09% w/v).  
 Do not pipette by mouth.  
 Avoid contact of reagents and specimens with skin and mucous membranes.  
 Avoid microbial contamination of reagents or increased nonspecific staining may occur.  
 This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.


**References:**

**Warranty:** No products or “Instructions For Use (IFU)” are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

Storage: 2° C  8° C

 ScyTek Laboratories, Inc.  
 205 South 600 West  
 Logan, UT 84321  
 U.S.A.



 EmergoEurope (31)(0) 70 345-8570  
 Molsnstraat 15  
 2513 BH Hague, The Netherlands