

Mucin 5AC (MUC5AC) / Gastric Mucin Ab-1 (Clone 45M1)**Mouse Monoclonal Antibody**

Cat. #MS-145-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-145-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-145-B0, -B1, or -B (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)

Cat. #MS-145-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)

Cat. #MS-145-PCS (5 Slides) (Positive Control for Histology)

Description: Mucins are high molecular weight glycoproteins with 80% carbohydrate contents and the remaining 20% is constituted by protein core. Gastric mucin M1 antigens are detected/found in columnar mucus cells of surface gastric epithelium and in goblet cells of the fetal and precancerous colon but not in those of normal colon. Evidence from the literature suggests that they are associated with the peptide core of mucins. Resurgence of gastric mucin reactivity during colonic carcinogenesis is suggested to be due to either re-expression of the peptide core of gastric (or fetal colonic) mucins in the adult colon or due to changes in the glycosylation pattern of mucin which expose the hidden M1 antigens.

Comments: Ab-1 recognizes the peptide core of gastric mucin M1 (Mucin 5AC)¹.

Mol. Wt. of Antigen: >1000kDa

Epitope: Destroyed by β-mercaptoethanol¹ and proteases but not by periodate treatment¹.

Species Reactivity: Human, Monkey², Rabbit², Cat², Mouse², Rat¹, Pig², Hedgehog² and Chicken². Does not react with cow². Others-not known.

Clone Designation: 45M1

Ig Isotype / Light Chain: IgG₁ / κ

Immunogen: M1 mucin preparation from the fluid of an ovarian mucinous cyst belonging to an O Le(a-b-) patient¹

Applications and Suggested Dilutions:

- Immunohistology (Formalin/paraffin) (Ab 1-2µg/ml for 30 min at RT)
- * [No special pretreatment is required for immunohistochemical staining of formalin-fixed tissues]. The optimal dilution for a specific application should be determined by the investigator.

Positive Control: Stomach

Cellular Localization: Cytoplasmic and cell surface

Supplied As: 200µg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml. Or Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Key References:

1. Bara J *et. al.* Int J Cancer, 1991, 47(2):304-10.
2. Bara J *et. al.* J Immun Methods, 1992, 149(1):105-13.
3. Cancer Res, 1986, 46: 3983-3989.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products 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 data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only