

Mucin 5AC / MUC 5AC Monoclonal Mouse Antibody (2-12M1)

Product Description

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 Schiff) 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. Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the

[CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors. **Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. Int J Cancer (1998) 75: 767-773. (RIA)
2. Arch Ophthalmol (2007) 125 (10): 1337-1344 (IF, FFPE)
3. FEBS J (2008) 275: 481-489. (WB, epitope mapping)
- 4.

Product attributes

| | |
|---------------------------------------|---|
| Antibody number | #0438 |
| Antibody reactivity (target) | Gastric Mucin, MUC5AC |
| Antibody type | Primary |
| Host species | Mouse |
| Clonality | Monoclonal |
| Clone | 2-12M1 |
| Isotype | IgG1, kappa |
| Molecular weight | >1,000 kDa |
| Synonyms | Apomucin Major Airway Glycoprotein; Mucin 5 subtype AC tracheobronchial; Mucin 5 Subtypes A And C; Mucin 5AC oligomeric mucus/gel forming; Tracheobronchial Mucin (TBM) |
| Human gene symbol | MUC5AC |
| Entrez gene ID | 4586 |
| SwissProt | P98088 |
| Unigene | 534332 |
| Immunogen | M1 mucin preparation from the fluid of an ovarian mucinous cyst belonging to an O Le(a-b) patient |
| Antibody target cellular localization | Secreted (extracellular) |
| Species reactivity | Cat, Cow, Human, Monkey, Mouse |
| Expected antibody applications | RIA (published for clone), IHC (FFPE) (published for clone), WB (published for clone) |
| Antibody application notes | Flow cytometry: 0.5-1 ug/million cells; Immunofluorescence: 1-2 ug/mL; Optimal dilution for a specific application should be determined., Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody |
| Positive control | MCF-7 cells. Human colon or stomach (IHC). |
| Shipping condition | Room temperature |
| Storage Conditions | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C |
| Regulatory status | For research use only (RUO) |
| Antibody/conjugate formulation | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide |
| Shelf life | Guaranteed for at least 24 months from date of receipt when stored as recommended |
| Cell/tissue expression | Epithelial cells |
| Antibody research areas | Cancer, Mucins |

| Antibody # prefix | Conjugation | Ex/Em (nm) | Laser line | Detection channel | Dye Features |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04 | CF®405S | 404/431 | 405 | DAPI (microscopy), AF405 | CF®405S Features |
| BNC88 | CF®488A | 490/515 | 488 | GFP, FITC | CF®488A Features |
| BNC68 | CF®568 | 562/583 | 532, 561 | RFP, TRITC | CF®568 Features |
| BNC94 | CF®594 | 593/614 | 561 | Texas Red® | CF®594 Features |
| BNC40 | CF®640R | 642/662 | 633-640 | Cy®5 | CF®640R Features |
| BNC47 | CF®647 | 650/665 | 633-640 | Cy®5 | CF®647 Features |
| BNCB | Biotin | N/A | N/A | N/A | |
| BNUB | Purified | N/A | N/A | N/A | |
| BNUM | Purified, BSA-free | N/A | N/A | N/A | |

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