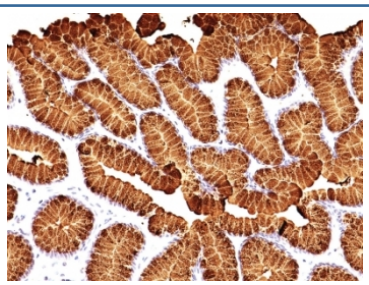
MUC5AC Antibody / Mucin 5AC [clone MUC5AC/917 + 45M1] (V2740)

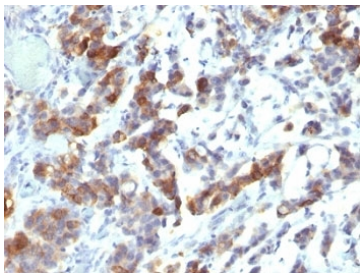
Catalog No.	Formulation	Size
V2740-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2740-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2740SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2740IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	MUC5AC/917 + 45M1
Purity	Protein G affinity chromatography
UniProt	P98088
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This MUC5AC antibody cocktail is available for research use only.



IHC: Formalin-fixed, paraffin-embedded human stomach stained with MUC5AC antibody (MUC5AC/917 + 45M1).



IHC: Formalin-fixed, paraffin-embedded human gastric carcinoma stained with MUC5AC antibody (MUC5AC/917 + 45M1).

Description

MUC5AC antibody clones MUC5AC/917 and 45M1 are monoclonal antibodies that detect mucin 5AC, a secreted gel-forming mucin expressed in gastric epithelium and respiratory tract. MUC5AC contributes to mucus viscosity and epithelial protection, playing a central role in respiratory defense and gastric barrier function. It is also a biomarker in multiple cancers, where its expression can help classify tumor origin and behavior. NSJ Bioreagents supplies this antibody blend for oncology, respiratory biology, and gastrointestinal research.

The antibody produces strong cytoplasmic and apical staining in gastric foveolar epithelium and goblet cells of the respiratory tract. In pathology, MUC5AC is an important marker for distinguishing adenocarcinomas of gastrointestinal and pulmonary origin. Expression in tumors can aid in differentiating primary adenocarcinomas from metastases and in evaluating mucinous carcinomas.

In oncology, MUC5AC antibody clones MUC5AC/917 and 45M1 have been applied to studies of gastric, pancreatic, colorectal, and lung cancers. Overexpression and abnormal glycosylation of MUC5AC are associated with tumor progression, invasion, and metastasis. The antibody supports research into how mucins contribute to altered adhesion and immune evasion in cancer cells.

In respiratory biology, MUC5AC is a key marker of goblet cell hyperplasia and mucus overproduction. The antibody has been widely used to investigate airway diseases such as asthma, chronic obstructive pulmonary disease, and cystic fibrosis. Detection of MUC5AC provides insights into mechanisms of airway remodeling and inflammation.

In gastrointestinal studies, the antibody highlights gastric mucosal defense and barrier functions. Altered expression of MUC5AC has been linked to gastritis and gastric carcinoma, making it a useful marker in both health and disease.

Validated in tissue-based and cell-based assays, this antibody combination consistently produces specific staining with minimal background. Alternate names include mucin 5 subunit AC antibody, gastric mucin antibody, and respiratory mucin antibody.

Application Notes

Optimal dilution of the MUC5AC antibody cocktail should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human protein (MUC5AC/917) and an M1 mucin preparation from the fluid of an ovarian mucinous cyst belonging to an O Le(a-b) patient (45M1) were used as the immunogen for the MUC5AC antibody cocktail.

Storage

Store the MUC5AC antibody cocktail at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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