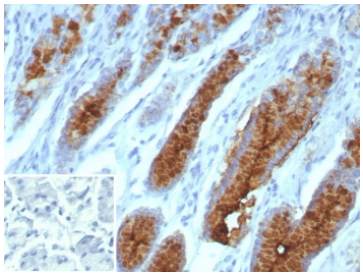
Mucin 5AC Antibody / Secreted Mucin Marker [clone MUC5AC/7066R] (V9680)

Catalog No.	Formulation	Size
V9680-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9680-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9680SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	MUC5AC/7066R
Purity	Protein A/G affinity
UniProt	P98088
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Mucin 5AC Antibody / Secreted Mucin Marker is available for research use only.



Mucin 5AC Antibody MUC5AC/7066R in Human Stomach IHC. Immunohistochemistry staining of FFPE human stomach tissue with Mucin 5AC Antibody / Secreted Mucin Marker, clone MUC5AC/7066R, at 1 ug/ml. HIER was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before staining. Strong cytoplasmic staining is observed in gastric foveolar epithelial cells lining glandular structures, consistent with MUC5AC expression, while surrounding stromal cells show minimal staining.

Description

Mucin 5AC Antibody / Secreted Mucin Marker detects MUC5AC, a large secreted gel-forming mucin produced by

specialized mucus-secreting epithelial cells. MUC5AC is an important structural component of mucus in the stomach and respiratory tract, where it contributes to hydrated extracellular barriers that protect epithelial surfaces. Through its extensive glycosylation and ability to form mucus gels, Mucin 5AC contributes to mucosal defense against microorganisms, environmental particles, chemical injury and dehydration.

MUC5AC contains large serine- and threonine-rich regions that undergo extensive O-linked glycosylation. These carbohydrate-rich domains give mature mucin molecules their characteristic physical properties and resistance to proteolysis. Following secretion, MUC5AC contributes to formation of viscoelastic mucus gels that trap particles and microorganisms while maintaining hydration of epithelial surfaces. This secreted mucin biology makes MUC5AC relevant to research involving epithelial barrier function, mucus production and mucosal homeostasis.

In the respiratory tract, MUC5AC is produced by goblet and other mucus-secreting epithelial cells. Its expression can increase in response to inflammatory cytokines, allergens, infection and environmental irritants. Excessive MUC5AC production can contribute to mucus accumulation and impaired airway clearance, making the protein important to studies of asthma, chronic bronchitis, chronic obstructive pulmonary disease and other conditions involving mucus hypersecretion.

Mucin 5AC is also highly expressed by surface and foveolar epithelial cells of the stomach, where it contributes to the mucus barrier protecting the gastric mucosa from acid and digestive enzymes. Changes in MUC5AC expression, localization and glycosylation are investigated in gastritis, Helicobacter pylori infection, gastric epithelial remodeling and cancer. Aberrant expression is additionally studied in other epithelial malignancies, particularly tumors showing mucinous or gastric-type differentiation.

Clone MUC5AC/7066R is a recombinant rabbit monoclonal antibody generated against full-length recombinant human protein. It has been evaluated by immunohistochemistry in FFPE human tissues. Recombinant production provides a defined antibody sequence and supports consistent performance across manufacturing lots. NSJ Bioreagents supplies antibodies for mucin, epithelial and mucosal biology research. A Mucin 5AC Antibody can be used to investigate secreted mucus, epithelial barrier function, mucosal defense and disease-associated changes in MUC5AC expression.

For broader research on MUC5AC expression in gastric and respiratory mucus, including the widely published 45M1 clone, see our MUC5AC Antibody 45M1 / Gastric and Respiratory Mucin Marker page.

Application Notes

Optimal dilution of the Mucin 5AC Antibody / Secreted Mucin Marker should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the recombinant Mucin 5AC antibody.

Storage

Aliquot the recombinant Mucin 5AC antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Mucin 5AC antibody, Secreted Mucin Marker antibody, MUC5AC antibody, Mucin-5AC antibody, Gastric Mucin antibody

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