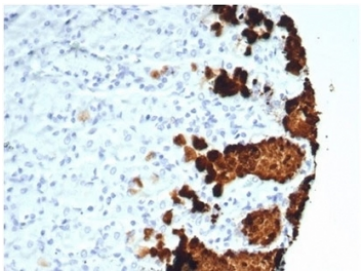
Gastric Mucin Antibody / Gastric Mucus Marker [clone MUC5AC/7067R] (V9681)

Catalog No.	Formulation	Size
V9681-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9681-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9681SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

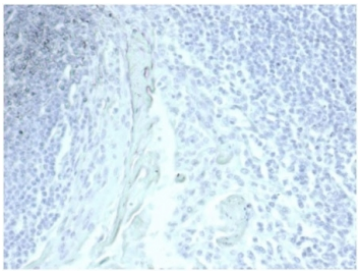
Recombinant RABBIT MONOCLONAL

Bulk quote request

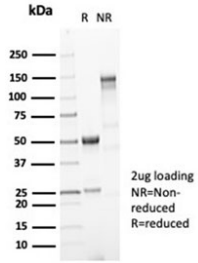
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	MUC5AC/7067R
Purity	Protein A/G affinity
UniProt	P98088
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Gastric Mucin Antibody / Gastric Mucus Marker is available for research use only.



Gastric Mucin Antibody MUC5AC/7067R in Human Stomach IHC. Immunohistochemistry staining of FFPE human stomach tissue with Gastric Mucin Antibody / Gastric Mucus Marker, clone MUC5AC/7067R, at 1-2 ug/ml for 30 min at RT. HIER was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing. Strong cytoplasmic staining is observed in gastric foveolar epithelial cells, demonstrating MUC5AC expression in human stomach tissue.



Gastric Mucin Antibody MUC5AC/7067R Negative Control in Human Tonsil IHC. Immunohistochemistry testing of FFPE human tonsil tissue with Gastric Mucin Antibody / Gastric Mucus Marker, clone MUC5AC/7067R, at 1-2 ug/ml for 30 min at RT. HIER was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing. Human tonsil serves as a negative-control tissue for MUC5AC staining.



Purified Gastric Mucin Antibody MUC5AC/7067R SDS-PAGE. Gel run analysis of purified, BSA-free Gastric Mucin Antibody / Gastric Mucus Marker, clone MUC5AC/7067R. Analysis of the purified recombinant rabbit monoclonal antibody provides confirmation of antibody integrity and purity.

Description

Gastric Mucin Antibody / Gastric Mucus Marker detects MUC5AC, a large secreted gel-forming mucin and major component of the gastric mucus barrier. MUC5AC is highly expressed by surface and foveolar epithelial cells of the stomach, where it contributes to the protective mucus layer separating the gastric epithelium from acid, digestive enzymes, microorganisms and mechanical injury. Its characteristic expression in mucus-producing gastric epithelium makes MUC5AC important to studies of gastric mucosal differentiation, protection and disease.

MUC5AC is synthesized as a large glycoprotein containing serine- and threonine-rich regions that undergo extensive O-linked glycosylation. Secreted MUC5AC molecules contribute to formation of the hydrated, viscoelastic mucus gel covering the gastric surface. This mucus layer works together with bicarbonate secretion and epithelial barrier mechanisms to maintain the gastric mucosa despite exposure to the highly acidic luminal environment. Regulation of gastric mucin production is therefore relevant to research involving epithelial homeostasis, mucosal injury and tissue repair.

Changes in MUC5AC expression, distribution and glycosylation are investigated in gastrointestinal disease. Altered gastric mucin phenotypes have been reported during chronic gastritis, intestinal metaplasia and gastric carcinoma. MUC5AC is also studied in relation to Helicobacter pylori infection, which can influence mucus composition and gastric epithelial biology. A Gastric Mucin Antibody can consequently be useful for investigating changes in mucus-producing cell populations and gastric epithelial differentiation under normal and pathological conditions.

Although strongly associated with the stomach, MUC5AC is also produced by mucus-secreting cells of the respiratory epithelium. Expression can increase in response to inflammatory mediators, infection and environmental stimuli, connecting this gastric mucus marker with broader research into mucosal defense and secretory epithelial biology. Aberrant MUC5AC expression is additionally investigated in gastric and other epithelial cancers, particularly tumors exhibiting mucinous or gastric-type differentiation.

Clone MUC5AC/7067R is a recombinant rabbit monoclonal antibody generated against full-length recombinant human protein. It has been evaluated by immunohistochemistry in FFPE human tissue, with strong cytoplasmic staining demonstrated in gastric foveolar epithelial cells and human tonsil included as a negative tissue control. Recombinant production provides a defined antibody sequence and supports consistent performance across manufacturing lots. NSJ Bioreagents supplies antibodies for mucin, epithelial and gastrointestinal research. A Gastric Mucin Antibody can be used to investigate gastric mucus production, foveolar epithelial cells, mucosal protection 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 Gastric Mucin Antibody / Gastric Mucus Marker should be determined by the researcher.

Immunogen

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

Storage

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

Alternate Names

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

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