

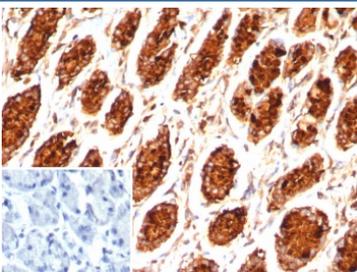
MUC5AC Antibody / Mucin 5AC [clone MUC5AC/8340R] (V4161)

Catalog No.	Formulation	Size
V4161-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4161-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4161SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

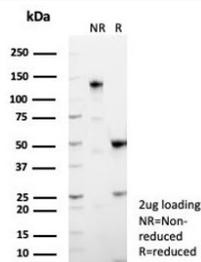
Recombinant **RABBIT MONOCLONAL**

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Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MUC5AC/8340R
Purity	Protein A/G affinity
UniProt	P98088
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This MUC5AC antibody is available for research use only.



Immunohistochemistry analysis of MUC5AC / Mucin 5AC antibody (clone MUC5AC/7798R) in human stomach tissue. FFPE human stomach section shows strong cytoplasmic brown chromogenic staining in gastric foveolar epithelial cells lining glandular structures, consistent with MUC5AC expression, while surrounding stromal cells show minimal staining and nuclei appear blue. The inset shows PBS used in place of primary antibody as a negative control with no specific staining observed. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free MUC5AC antibody (clone MUC5AC/7798R) as confirmation of integrity and purity.

Description

MUC5AC antibody targets Mucin 5AC, a secreted gel-forming mucin encoded by the human MUC5AC gene and a member of the secreted mucin family. Mucin 5AC, also widely referred to as MUC5AC in the literature, is primarily expressed in gastric foveolar epithelium and mucus-secreting epithelial cells of the respiratory tract. MUC5AC antibody is commonly used in studies of gastric differentiation, mucosal biology, and tumor pathology because Mucin 5AC is a key component of the protective mucus barrier in the stomach and is frequently dysregulated in gastrointestinal and pulmonary diseases.

MUC5AC is synthesized as a large secreted glycoprotein characterized by extensive O-glycosylation and polymerization into high molecular weight mucin gels. In normal gastric tissue, Mucin 5AC is localized to the apical cytoplasm and secretory granules of surface foveolar cells, contributing to formation of the viscoelastic mucus layer that protects the epithelium from acid and enzymatic injury. In pathological conditions, including chronic gastritis, intestinal metaplasia, and gastric carcinoma, MUC5AC expression patterns may become altered. MUC5AC antibody is therefore valuable for evaluating gastric epithelial differentiation and mucin phenotype shifts in disease.

Beyond the stomach, aberrant Mucin 5AC expression has been reported in pancreatic, ovarian, lung, and colorectal carcinomas, where it may serve as a marker of mucinous differentiation. Elevated MUC5AC expression has also been observed in airway inflammatory conditions such as asthma and chronic obstructive pulmonary disease, reflecting its role in mucus hypersecretion.

Structurally, Mucin 5AC contains large tandem repeat domains rich in serine and threonine residues that support extensive glycosylation, as well as cysteine-rich domains that mediate mucin polymerization. A MUC5AC antibody is suitable for detecting Mucin 5AC expression in gastric epithelium, respiratory mucosa, and mucinous tumors in research applications.

Application Notes

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

Immunogen

Recombinant full-length human MUC5AC protein was used as the immunogen for the MUC5AC antibody.

Storage

Aliquot the MUC5AC antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.

