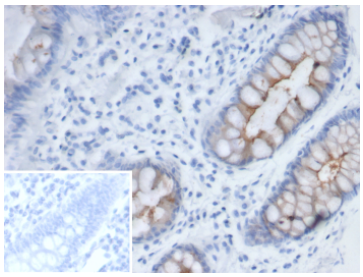
Sialomucin Complex Subunit 4 Antibody | MUC4 [clone MUC4/8660R] (V5952)

Catalog No.	Formulation	Size
V5952-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5952-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5952SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

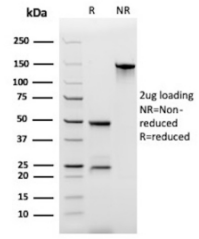
Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MUC4/8660R
Purity	Protein A affinity
UniProt	Q99102
Localization	Cell membrane, Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This recombinant Sialomucin Complex Subunit 4 antibody is available for research use only.



Immunohistochemistry analysis of recombinant Sialomucin Complex Subunit 4 / MUC4 antibody (clone MUC4/8660R) in human colon tissue. Formalin-fixed, paraffin-embedded human colon section shows membranous and apical cytoplasmic brown chromogenic staining in epithelial cells lining glandular structures, consistent with MUC4 expression, while surrounding stromal cells exhibit 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 heating tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, for 45 minutes at 95oC followed by cooling at room temperature for 20 minutes prior to staining.



SDS-PAGE analysis of purified recombinant Sialomucin Complex Subunit 4 antibody (clone MUC4/8660R). Confirmation of Purity and Integrity of Antibody.

Description

Sialomucin Complex Subunit 4 antibody targets Mucin-4, a large transmembrane glycoprotein encoded by the human MUC4 gene and a member of the membrane-bound mucin family. Sialomucin complex subunit 4 refers to the membrane-associated component of the heterodimeric MUC4 complex that was originally characterized as part of the ascites sialoglycoprotein system. In the literature, Sialomucin Complex Subunit 4 antibody, MUC4 antibody, and Mucin-4 antibody are used to describe detection of the same epithelial mucin protein that plays critical roles in barrier function and tumor biology.

MUC4 is synthesized as a high molecular weight precursor that undergoes proteolytic processing into two subunits that remain non-covalently associated at the cell surface. These are historically described as ASGP-1 and ASGP-2, with Sialomucin complex subunit 4 corresponding to the membrane-spanning ASGP-2 component. The extracellular region contains heavily O-glycosylated tandem repeat domains that contribute to mucosal protection, while the membrane-associated subunit contains epidermal growth factor-like domains, a transmembrane region, and a cytoplasmic tail involved in intracellular signaling. Sialomucin Complex Subunit 4 antibody is therefore valuable for investigating epithelial differentiation and membrane-associated signaling pathways.

In normal tissues, Mucin-4 expression is largely restricted to glandular and ductal epithelial cells of the respiratory, gastrointestinal, and genitourinary tracts. During malignant transformation, MUC4 expression frequently becomes upregulated and loses apical polarity, contributing to altered cell adhesion, increased tumor cell survival, and enhanced metastatic potential. Elevated MUC4 expression has been documented in pancreatic, breast, lung, ovarian, gastric, and colorectal carcinomas.

Mucin-4 has been shown to interact with receptor tyrosine kinases such as ERBB2, modulating downstream pathways that regulate proliferation and resistance to apoptosis. A Sialomucin Complex Subunit 4 antibody such as clone MUC4/8660R is suitable for detecting MUC4 expression in epithelial tissues and tumor biology research applications.

Application Notes

1. Optimal dilution of the recombinant Sialomucin Complex Subunit 4 antibody should be determined by the researcher.

2. This recombinant Sialomucin Complex Subunit 4 antibody is recombinantly produced by expression in CHO cells.

Immunogen

A recombinant fragment (around amino acids 1729-1860) of human MUC4 protein (exact sequence is proprietary) was used as the immunogen for the recombinant Sialomucin Complex Subunit 4 antibody.

Storage

Sialomucin Complex Subunit 4 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

MUC4 antibody, Mucin-4 antibody