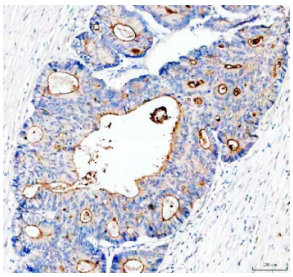
MUC13 Antibody / Mucin 13 (RQ5090)

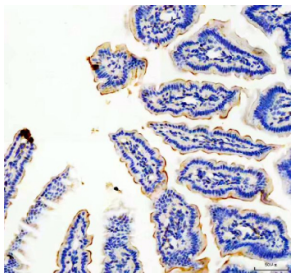
Catalog No.	Formulation	Size
RQ5090	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

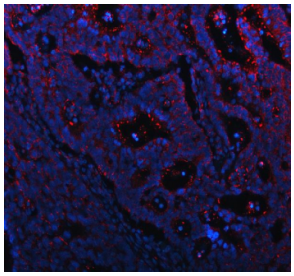
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9H3R2
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This MUC13 antibody is available for research use only.



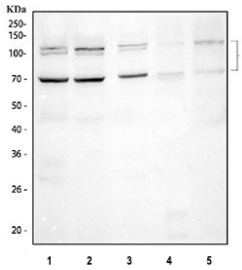
IHC staining of FFPE human colon cancer tissue with MUC13 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE mouse colon tissue with MUC13 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunofluorescent staining of FFPE human colon cancer tissue with MUC13 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH8 EDTA buffer for 20 min.



Western blot testing of 1) human Caco-2, 2) human A549, 3) human HeLa, 4) rat stomach and 5) mouse stomach tissue lysate with MUC13 antibody. Predicted molecular weight ~55 kDa but may be observed at higher molecular weights due to glycosylation.

Description

MUC13 Antibody targets Mucin 13, a transmembrane mucin encoded by the MUC13 gene that functions as a component of the epithelial cell surface glycocalyx. Mucin 13 belongs to the mucin family of heavily glycosylated proteins that contribute to epithelial barrier function, cell signaling, and protection of mucosal surfaces. As a membrane-associated mucin, MUC13 plays a role in mediating interactions between epithelial cells and their extracellular environment.

Functionally, Mucin 13 contributes to epithelial defense by forming a protective mucous layer and participating in cell surface signaling processes. The extracellular mucin domain is extensively glycosylated, providing resistance to proteolytic degradation and mechanical stress, while the transmembrane and cytoplasmic regions enable intracellular signaling interactions. A MUC13 Antibody enables investigation of mucin expression patterns, epithelial surface organization, and mucin-associated signaling pathways in research studies.

MUC13 expression is primarily observed in epithelial tissues, particularly within the gastrointestinal tract and other mucosal surfaces. At the cellular level, Mucin 13 localizes predominantly to the apical plasma membrane of epithelial cells, where it contributes to barrier integrity and luminal interface functions. Altered localization or expression of MUC13 may reflect changes in epithelial differentiation, inflammatory responses, or disease-associated remodeling of mucosal tissues.

At the molecular level, Mucin 13 is characterized by a large extracellular domain containing tandem repeat regions rich in serine and threonine residues that serve as sites for O-linked glycosylation. These structural features are typical of mucins and are critical for forming hydrated, protective mucous layers. The cytoplasmic tail of MUC13 contains motifs that can interact with intracellular signaling proteins, linking mucin expression to regulation of epithelial cell behavior.

From a biological and disease relevance perspective, MUC13 has been extensively studied in cancer research, particularly in epithelial-derived malignancies. Aberrant overexpression of MUC13 has been associated with altered cell signaling, increased proliferative capacity, and changes in cell adhesion properties. These alterations can contribute to

tumor-associated epithelial remodeling and disrupted barrier function, highlighting the importance of MUC13 as a marker of epithelial transformation and disease progression.

MUC13 Antibody reagents are valuable tools for studying mucin biology, epithelial barrier regulation, and disease-associated changes in cell surface glycoproteins. These antibodies support research into gastrointestinal biology, epithelial signaling pathways, and cancer-associated alterations in mucosal protein expression. NSJ Bioreagents provides MUC13 Antibody products intended for research use.

Application Notes

Optimal dilution of the MUC13 antibody should be determined by the researcher.

Immunogen

Amino acids E226-S312 from the human protein were used as the immunogen for the MUC13 antibody.

Storage

Store the MUC13 antibody at -20oC.

Copyright © NSJ Bioreagents. All rights reserved.