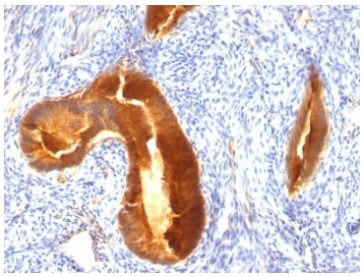
MUC-1 Antibody / Mucin 1 [clone MUC1/955] (V2372)

Catalog No.	Formulation	Size
V2372-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2372-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2372SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2372IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

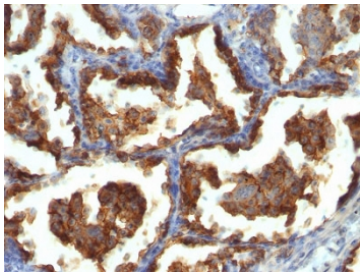
Citations (2)

Bulk quote request

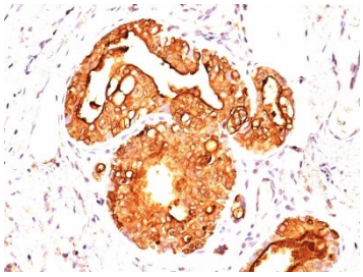
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	MUC1/955
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	4582
RRID	AB_2864392
Localization	Cytoplasmic and cell surface
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT (1) Immunofluorescence: see citations 1 & 2
Limitations	This **MUC-1 antibody** is available for research use only.



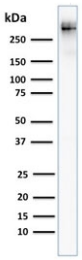
IHC staining of FFPE human endometrial carcinoma with MUC-1 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



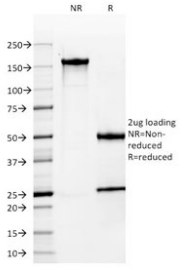
IHC staining of FFPE human lung carcinoma with MUC-1 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



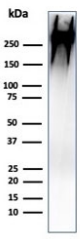
IHC staining of FFPE human breast carcinoma with MUC-1 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



Western blot testing of human T47D cell lysate with MUC-1 antibody (clone MUC1/955). Expected molecular weight: 120-500 kDa depending on glycosylation level.



SDS-PAGE analysis of purified, BSA-free MUC-1 antibody (clone MUC1/955) as confirmation of integrity and purity.



Western blot testing of human MCF7 cell lysate with MUC-1 antibody (clone MUC1/955). Expected molecular weight: 120-500 kDa depending on glycosylation level.

Description

MUC-1 antibody clone MUC1/955 is a monoclonal antibody that targets mucin-1, a transmembrane glycoprotein expressed on the apical surface of epithelial cells. MUC-1 is heavily glycosylated and plays roles in protecting epithelial barriers, mediating cell adhesion, and modulating signaling pathways. In healthy tissues, MUC-1 expression is polarized, while in cancers it becomes overexpressed and loses apical restriction, contributing to tumor invasion and metastasis. NSJ Bioreagents provides MUC-1 antibody clone MUC1/955 as a trusted reagent for studies in cancer biology, immunology, and epithelial physiology.

MUC-1 antibody clone MUC1/955 produces strong membranous and cytoplasmic staining in glandular epithelial tissues, such as breast, pancreas, and gastrointestinal tract. In pathology, clone MUC1/955 is commonly used as a marker for adenocarcinomas, including breast, ovarian, and pancreatic cancers. Its detection provides important diagnostic information, as aberrant MUC-1 expression correlates with tumor progression, poor prognosis, and metastatic potential.

In cancer research, MUC-1 antibody clone MUC1/955 has been employed to study how tumor-associated MUC-1 differs structurally and functionally from normal epithelial MUC-1. The altered glycosylation of tumor MUC-1 creates novel epitopes, making it a target for immunotherapy. Studies using clone MUC1/955 have contributed to vaccine development, monoclonal antibody therapies, and CAR T cell approaches aimed at targeting tumor-associated MUC-1.

Beyond oncology, MUC-1 antibody clone MUC1/955 supports investigations into epithelial defense mechanisms. MUC-1 modulates interactions with pathogens, including viruses and bacteria, and its detection has been used to clarify how mucins contribute to innate immunity at mucosal surfaces.

In reproductive biology, MUC-1 antibody clone MUC1/955 has been applied to uterine and embryonic studies, as MUC-1 expression at the endometrium regulates implantation. Altered MUC-1 dynamics in fertility disorders highlight its broader role in human physiology.

This antibody is validated for tissue and cell-based studies, delivering reproducible results in both normal and diseased tissues. Alternate names include epithelial membrane antigen antibody, episialin antibody, and carcinoma-associated mucin antibody.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the MUC-1 antibody to be titered up or down for optimal performance.

>1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Human milk fat globule membranes were used as the immunogen for this MUC-1 antibody.

Storage

Store the MUC-1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

References (1)

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