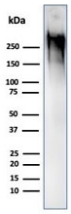
MUC1 Antibody / Mucin-1 [clone GP1.4] (V2193)

Catalog No.	Formulation	Size
V2193-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2193-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2193SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2193IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

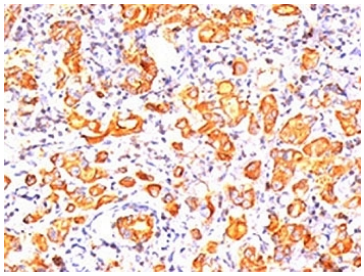
Citations (8)

Bulk quote request

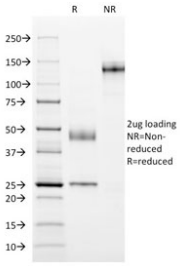
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	GP1.4
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	4582
Localization	Cytoplasmic and cell surface
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 1-2ug/ml
Limitations	This **MUC1 antibody** is available for research use only.



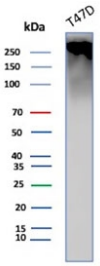
Western blot testing of human MCF7 cell lysate with MUC1 antibody (clone GP1.4). This glycoprotein is commonly visualized between 120~500 kDa.



IHC testing of human breast cancer stained with MUC1 antibody (clone GP1.4). Note cytoplasmic and membrane staining.



SDS-PAGE analysis of purified, BSA-free MUC1 antibody (clone GP1.4) as confirmation of integrity and purity.



Western blot testing of human T-47D cell lysate with MUC1 antibody (clone GP1.4). This glycoprotein is commonly visualized between 120~500 kDa.

Description

MUC1 antibody clone GP1.4 is a monoclonal antibody specific for mucin 1, a transmembrane glycoprotein normally expressed on the apical surface of epithelial cells in tissues such as the breast, lung, stomach, and pancreas. MUC1 plays a protective role by forming a mucous barrier, contributing to cell signaling, and supporting epithelial integrity. In cancer, MUC1 is frequently overexpressed and abnormally glycosylated, which enhances tumor growth, invasion, and immune evasion. NSJ Bioreagents provides MUC1 antibody clone GP1.4 for researchers studying epithelial biology, tumor progression, and biomarker discovery.

MUC1 antibody clone GP1.4 produces strong membranous and cytoplasmic staining in epithelial tissues. Its restricted expression under normal conditions contrasts with its widespread and disorganized expression in many carcinomas. Because of this, clone GP1.4 is frequently used in oncology research to detect breast, ovarian, pancreatic, and gastric cancers. MUC1 overexpression is associated with aggressive disease and poor prognosis, and detection with this antibody provides valuable information about tumor biology.

Beyond diagnostics, MUC1 antibody clone GP1.4 is central to research exploring MUC1 as a therapeutic target. MUC1 is recognized as a tumor associated antigen, and therapies directed against it, including vaccines and antibody drug conjugates, are under active development. Clone GP1.4 supports these investigations by enabling the reliable detection of MUC1 expression in preclinical and translational models.

In addition to cancer studies, MUC1 antibody clone GP1.4 is used in research on epithelial biology and immune defense. MUC1 contributes to mucosal immunity by preventing microbial adhesion and modulating inflammatory signaling. Altered expression has been observed in inflammatory diseases such as ulcerative colitis and chronic bronchitis, where clone GP1.4 provides a way to analyze these changes.

Validated for tissue and cell based detection, MUC1 antibody clone GP1.4 consistently delivers specific and reproducible

results. It has a strong publication record supporting its role in both epithelial research and oncology. Alternate names include polymorphic epithelial mucin antibody, epithelial membrane antigen antibody, and CD227 antibody.

Application Notes

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

1. No special pretreatment is required for staining of formalin/paraffin tissues.
2. 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 MUC1 / Mucin-1 antibody.

Storage

Store the MUC1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

References (1)

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