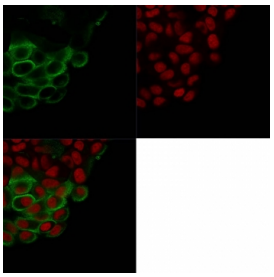
MUC-1 Antibody [clone HMPV] (V2721)

Catalog No.	Formulation	Size
V2721-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2721-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2721SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2721IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

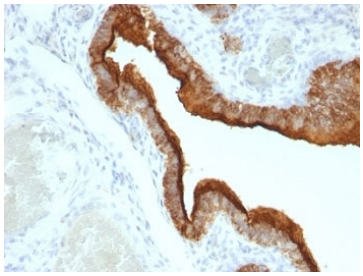
Citations (10)

Bulk quote request

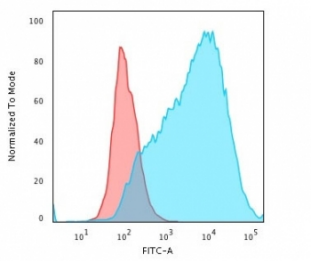
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	HMPV
Purity	Protein G affinity chromatography
UniProt	P15941
Localization	Cytoplasmic and cell surface
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 1-2ug/ml
Limitations	This MUC-1 antibody is available for research use only.



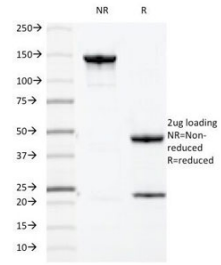
Immunofluorescent staining of PFA-fixed human K562 cells with MUC-1 antibody (green, clone HMPV) and Reddot nuclear stain (red).



IHC: Formalin-fixed, paraffin-embedded human ovarian carcinoma stained with MUC-1 antibody (clone HMPV).



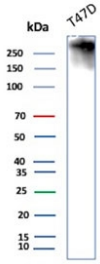
Flow cytometry testing of PFA-fixed human MCF7 cells with MUC-1 antibody (clone HMPV; Red=isotype control, Blue= MUC-1 antibody.



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



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



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

Description

This mAb recognizes full-length MUC1/Mucin-1/Epithelial Marker Antigen/EMA in a glycosylation-independent manner and can bind to the fully glycosylated protein. The dominant epitope of this mAb is APDTR in the VNTR region. It reacts with the core peptide of the MUC1 protein, which is a member of a family of mucin glycoproteins that are characterized by high carbohydrate content, O-linked oligosaccharides, high molecular weight (>200kDa) and an amino acid composition rich in serine, threonine, proline and glycine. The core protein contains a domain of 20 amino-acid tandem repeats that functions as multiple epitopes for the mAb. Incomplete glycosylation of some tumor-associated mucins may lead to variable unmasking of the multiple peptide epitopes leading to the observed differences in staining intensity between normal and malignant tissues. This mAb reacts with both normal and malignant epithelia of various tissues including breast and colon.

Application Notes

Optimal dilution of the MUC-1 antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min
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 breast cancer cell line ZR-75 cells were used as the immunogen for the MUC-1 antibody.

Storage

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

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