Product Datasheet

MUC1 Antibody (SPM132) - Azide and BSA Free
NBP2-34737-0.1mg

Unit Size: 0.1 mg

Store at -20 to -80C. Avoid freeze-thaw cycles.

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Publications: 2

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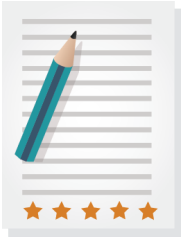
Updated 10/23/2024 v.20.1



NBP2-34737-0.1mg

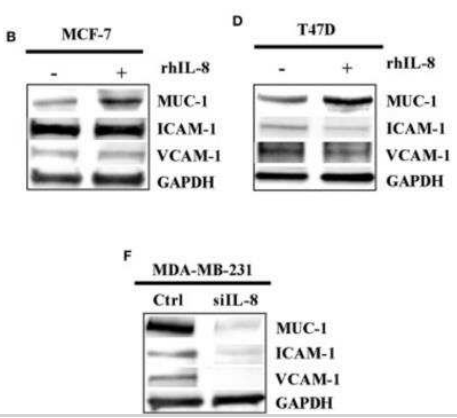
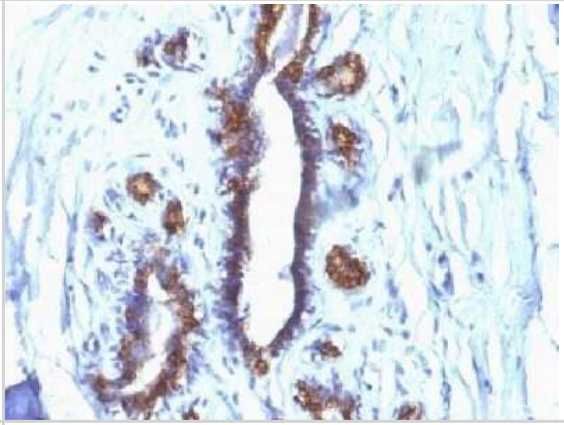
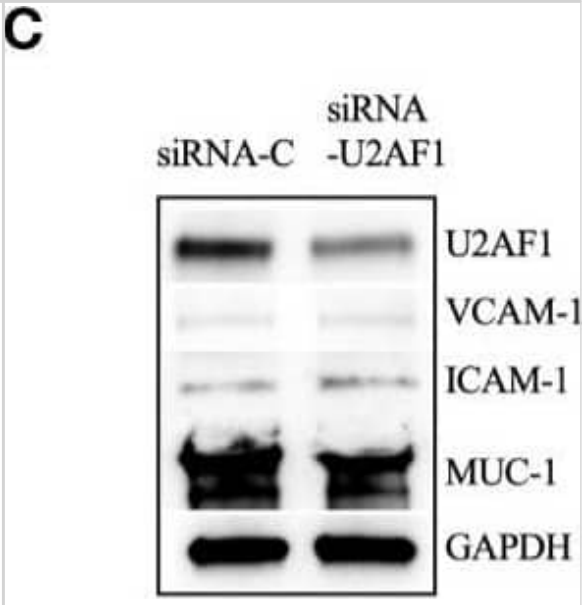
MUC1 Antibody (SPM132) - Azide and BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at -20 to -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	SPM132
Preservative	No Preservative
Isotype	IgG1 Kappa
Purity	Protein A or G purified
Buffer	10 mM PBS

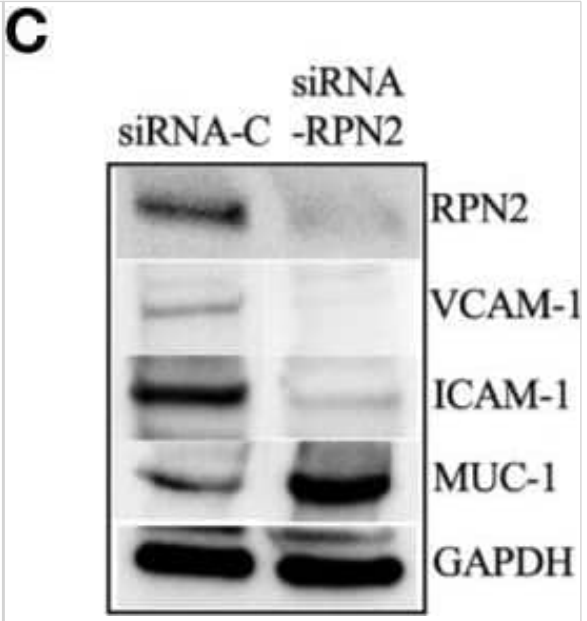
Product Description	
Description	1.0 mg/ml of antibody purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS WITHOUT BSA & azide. Also available at 200 ug/ml WITH BSA & azide (NBP2-32877). Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C.
Host	Mouse
Gene ID	4582
Gene Symbol	MUC1
Species	Human
Marker	Epithelial Marker
Specificity/Sensitivity	In Western blotting, it recognizes proteins in MW range of 265-400kDa, identified as different glycoforms of EMA. This monoclonal antibody reacts with the DTRP epitope in the tandem repeats. The alpha subunit has cell adhesive properties. It can act both as an adhesion and an anti-adhesion protein. EMA may provide a protective layer on epithelial cells against bacterial and enzyme attack. The beta subunit contains a C-terminal domain, which is involved in cell signaling, through phosphorylations and protein-protein interactions. In immunohistochemical assays, it superbly stains routine formalin/paraffin carcinoma tissues. Antibody to EMA is useful as a pan-epithelial marker for detecting early metastatic loci of carcinoma in bone marrow or liver.
Immunogen	Human milk fat globule membranes (Uniprot: P15941)

Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, CyTOF-ready
Recommended Dilutions	Western Blot 0.5-1ug/ml, Flow Cytometry 0.5-1ug/million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1-2ug/ml, Immunohistochemistry-Paraffin 0.5-1ug/ml, CyTOF-ready
Application Notes	Immunohistochemistry (Formalin-fixed): 1-2ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined.

Images

Western Blot: MUC1 Antibody (SPM132) - Azide and BSA Free [NBP2-34737] - B) Western blot analysis of MCF-7 cells treated +/- rhIL-8 at 10 ng/ml during 5 days to evaluate the expression of MUC-1, VCAM-1, and ICAM-1. (D) Western blot analysis of T47D cells treated +/- rhIL-8 at 10 ng/ml during 3 days to evaluate the expression of MUC-1, VCAM-1, and ICAM-1. (F) Western blot analysis of MDA-MB-231 cells transfected with/without an IL-8 silencer RNA (siIL-8) to evaluate the expression of MUC-1, VCAM-1, and ICAM-1. GAPDH is shown as load control. Image collected and cropped by Citeab from the following publication (Adipocytes Promote Early Steps of Breast Cancer Cell Dissemination via Interleukin-8. Front Immunol (2018) licensed under a CC-BY license.	
Immunohistochemistry-Paraffin: MUC1 Antibody (SPM132) - Azide and BSA Free [NBP2-34737] - Formalin-fixed, paraffin-embedded human Breast cancer stained with EMA Monoclonal Antibody (SPM132)	
Knockdown of U2AF1 decreased luminal A BC cell dissemination in vivo. Luminal A ER+ MCF-7 cells, transfected with negative control siRNA (siRNA-C) or siRNA targeting U2AF1 (siRNA-U2AF1) were injected in presence of estradiol (E2) ± neutrophils (Neu) into zebrafish transgenic embryos, with green fluorescent blood vessels, & analyzed as described in materials & methods. (A) Migration in vitro (n = 6–12). (B)In vivo dissemination in presence of E2 ± Neu (n = 38–41). Scale bar = 100 µm. (C) Western blot analysis for confirmation of siRNA-U2AF1 transfection & ICAM-1, VCAM-1, & MUC-1 expression. (D) Focal adhesion area (n = 7). Scale bar = 10 µm. (E) Proliferation in vitro (n = 12). Representative images of zebrafish embryos with disseminated MCF-7 cells & immunocytochemistry analysis of vinculin expression are shown. Arrows show disseminated MCF-7 cells & arrowheads show focal adhesions. BV = blood vessels. Data are presented as mean ± SEM. Two-tailed Student ’s t-test *P < 0.05, **P < 0.01, ns, not significant. Data are represented of at least two independent experiments. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33330095), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Knockdown of RPN2 decreased luminal B BC cell dissemination in vivo. Luminal B ER+ T47D cells, transfected with negative control siRNA (siRNA-C) or siRNA targeting RPN2 (siRNA-RPN2) were injected + estradiol (E2) ± neutrophils (Neu) into zebrafish transgenic embryos with green fluorescent blood vessels & analyzed as described in materials & methods. (A) Migration in vitro (n = 6). (B)In vivo dissemination of transfected T47D in presence of E2 ± Neu (n = 23–26). Scale bar = 100 µm. (n = 23–26). (C) Western blot analysis for confirmation of siRNA-RPN2 transfection & VCAM-1, ICAM-1, & MUC-1 expression. (D) Focal adhesions area (n = 5–6). Scale bar = 10 µm. (E) Proliferation (n = 6). Representative images of zebrafish embryos with disseminated luminal B T47D BC cells & immunocytochemistry analysis of vinculin expression are shown. Arrows show disseminated T47D & arrowheads show focal adhesions. BV = blood vessels. Data are presented as mean ± SEM. Two-tailed Student's t-test *P < 0.05, ***P < 0.001, ns, not significant. Data are represented of at least two independent experiments. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33330095), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Vazquez Rodriguez G, Abrahamsson A, Turkina MV, Dabrosin C. Lysine in Combination With Estradiol Promote Dissemination of Estrogen Receptor Positive Breast Cancer via Upregulation of U2AF1 and RPN2 Proteins Frontiers in Oncology 2020-11-30 [PMID: 33330095]

Vazquez Rodriguez G, Abrahamsson A, Jensen LDE et al. Adipocytes Promote Early Steps of Breast Cancer Cell Dissemination via Interleukin-8 Front. Immunol 2018-07-30 [PMID: 30105032] (WB, Human)

Details:
This citation used the Azide and BSA Free version of this antibody.

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Products Related to NBP2-34737-0.1mg

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
H00004582-Q01-10ug	Recombinant Human MUC1 GST (N-Term) Protein

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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