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Datasheet for ABIN5693192

anti-MUC1 antibody (AA 1062-1139)

5 Images

2 Publications

Overview

Quantity:	100 µg
Target:	MUC1
Binding Specificity:	AA 1062-1139
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MUC1 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), ELISA, Western Blotting (WB)

Product Details

Brand:	Picoband™
Immunogen:	E. coli-derived human MUC1 recombinant protein (Position: S1062-V1139).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for MUC1 detection. Tested with WB, IHC-P, Direct ELISA in Human, Mouse, Rat.

Target Details

Target:	MUC1
Alternative Name:	MUC1 (MUC1 Products)
Background:	Synonyms: Mucin-1, MUC-1, Breast carcinoma-associated antigen DF3, Cancer antigen 15-3,

Target Details

CA 15-3, Carcinoma-associated mucin, Episialin, H23AG, Krebs von den Lungen-6, KL-6, PEMT, Peanut-reactive urinary mucin, PUM, Polymorphic epithelial mucin, PEM, Tumor-associated epithelial membrane antigen, EMA, Tumor-associated mucin, CD227, Mucin-1 subunit alpha, MUC1-NT, MUC1-alpha, Mucin-1 subunit beta, MUC1-beta, MUC1-CT, MUC1, PUM

Tissue Specificity: Expressed on the apical surface of epithelial cells, especially of airway passages, breast and uterus. Also expressed in activated and unactivated T-cells.

Overexpressed in epithelial tumors, such as breast or ovarian cancer and also in non-epithelial tumor cells. Isoform Y is expressed in tumor cells only.

Background: Mucin 1, cell surface associated (MUC1) or polymorphic epithelial mucin (PEM) is a mucin encoded by the MUC1 gene in humans. This gene encodes a membrane-bound protein that is a member of the mucin family. Mucins are O-glycosylated proteins that play an essential role in forming protective mucous barriers on epithelial surfaces. It is mapped to 1q22. Mucin 1 is a transmembrane mucin normally expressed on the apical borders of secretory epithelial cells. Overexpression of Mucin 1 is often associated with colon, breast, ovarian, lung and pancreatic cancers. The protein serves a protective function by binding to pathogens and also functions in a cell signaling capacity. Mucin 1 stimulated ESR1-mediated transcription and contributed to estradiol-mediated growth and survival of breast cancer cells. This gene also can suppress pulmonary innate immunity, and its antiinflammatory activity may play an important modulatory role during microbial infection.

UniProt: [P15941](#)

Pathways: [Negative Regulation of intrinsic apoptotic Signaling](#)

Application Details

Application Notes: Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).

Application Details: Western blot, 0.1-0.5 µg/mL

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL

Direct ELISA, 0.1-0.5 µg/mL

Restrictions: For Research Use only

Handling

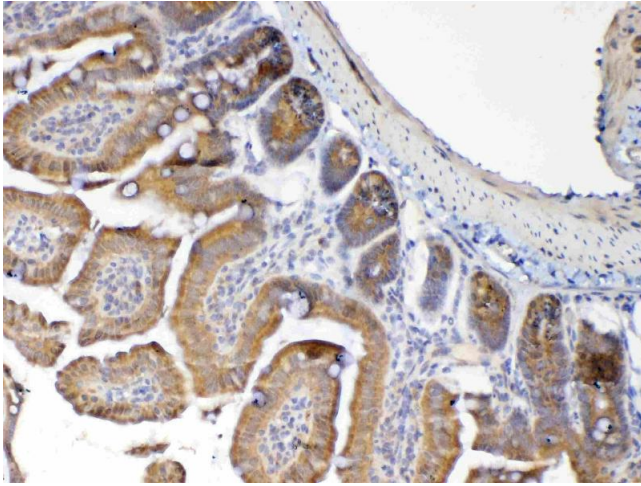
Format: Lyophilized

Handling

Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , 0.05 mg NaN ₃ .
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

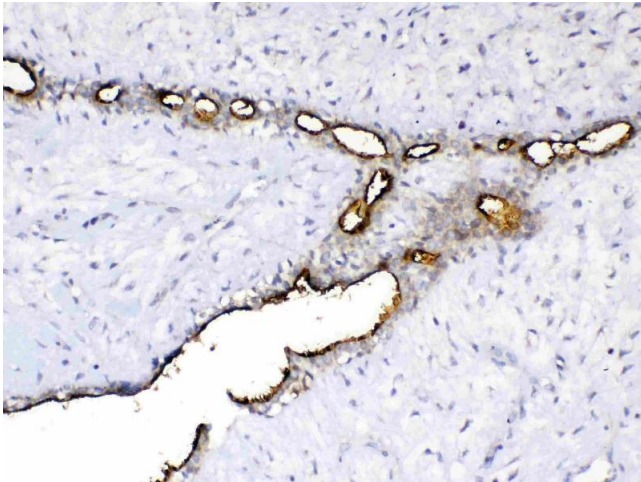
Publications

Product cited in:	"Retraction: Naringin Alleviates Diabetic Kidney Disease through Inhibiting Oxidative Stress and Inflammatory Reaction." in: PLoS ONE , Vol. 13, Issue 2, pp. e0192465, (2018) (PubMed).
	Wang, Lv, Guo, Duan, Dong, Wang, Yu, Su, Kuang: "Pharmacological Effect of Caulophyllum robustum on Collagen-Induced Arthritis and Regulation of Nitric Oxide, NF-κB, and Proinflammatory Cytokines In Vivo and In Vitro." in: Evidence-based complementary and alternative medicine : eCAM , Vol. 2017, pp. 8134321, (2018) (PubMed).
	Liu, Zhang, Han, Wang, Liu, Zhang, Zhou, Xiang: "[Corrigendum] Inhibition of BTK protects lungs from trauma-hemorrhagic shock-induced injury in rats." in: Molecular medicine reports , Vol. 17, Issue 5, pp. 6926, (2018) (PubMed).
	Wang, Liu, Wang, Wang, Tang, Jiang: "Src Promotes Metastasis of Human Non-Small Cell Lung Cancer Cells through Fn14-Mediated NF-κB Signaling." in: Medical science monitor : international medical journal of experimental and clinical research , Vol. 24, pp. 1282-1294, (2018) (PubMed).
	Liu, Bao, Zeng, Wei: "Effects of resveratrol and genistein on nuclear factor-κB, tumor necrosis factor-α and matrix metalloproteinase-9 in patients with chronic obstructive pulmonary disease." in: Molecular medicine reports , Vol. 13, Issue 5, pp. 4266-72, (2017) (PubMed).



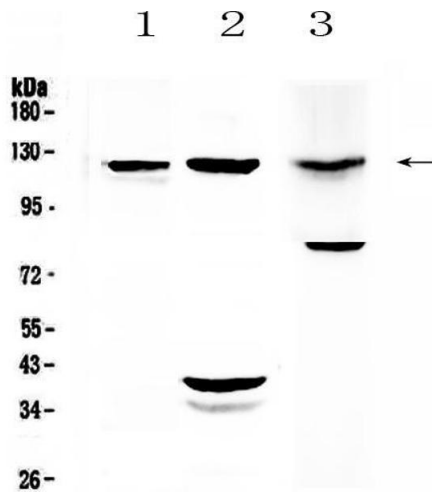
Immunohistochemistry

Image 1. IHC analysis of MUC1 using anti-MUC1 antibody . MUC1 was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-MUC1 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunohistochemistry

Image 2. IHC analysis of MUC1 using anti-MUC1 antibody . MUC1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-MUC1 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Western Blotting

Image 3. Western blot analysis of MUC1 using anti-MUC1 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat lung tissue lysates, Lane 2: rat pancreas tissue lysates, Lane 3: mouse pancreas tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MUC1 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MUC1 at approximately 122KD. The expected band size for MUC1 is at 122KD.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN5693192.