

Anti-MUC1 Antibody

Catalog Number: A00187-3

About MUC1

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.

Overview

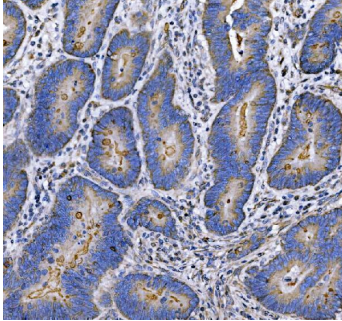
Product Name	Anti-MUC1 Antibody
Reactive Species	Human
Description	Boster Bio Anti-MUC1 Antibody catalog # A00187-3. Tested in ELISA, Flow Cytometry, IHC applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IHC
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P15941

Technical Details

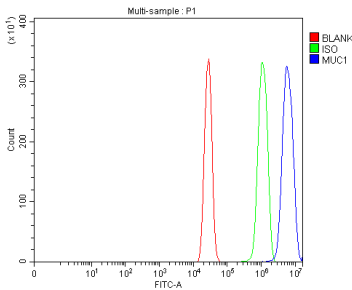
Immunogen	E.coli-derived human MUC1 recombinant protein (Position: S1098-L1255).
Recommended Detection Systems	Boster recommends HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

Anti-MUC1 Antibody (A00187-3) Images



IHC analysis of MUC1 using anti-MUC1 antibody (A00187-3). MUC1 was detected in a paraffin-embedded section of human rectal moderately differentiated adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MUC1 Antibody (A00187-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Flow Cytometry analysis of A431 cells using anti-MUC1 antibody (A00187-3). Overlay histogram showing A431 cells stained with A00187-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MUC1 Antibody (A00187-3, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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