

Basic Information

Product Name	Anti-CA15-3/MUC1 Antibody	
Gene Name	MUC1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, IF, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived human MUC1 recombinant protein (Position: T1063-R1131). Human MUC1 shares 59.1% and 58.5% amino acid (aa) sequence identity with mouse and rat MUC1, respectively.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	25-30 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunofluorescence (IF):	1:50-400
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

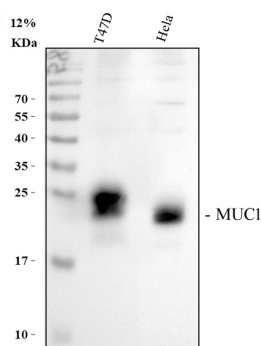
12 months from date of receipt, -20°C as supplied.

Background Information

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.

Selected Validation Data



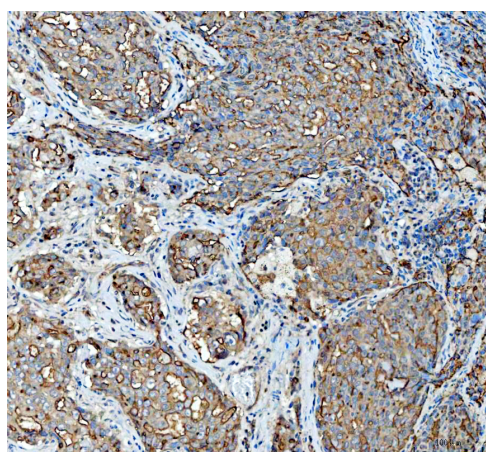
Western blot analysis of CA15-3/MUC1 using anti-CA15-3/MUC1 antibody (A00187-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human T-47D whole cell lysates,

Lane 2: human Hela whole cell lysates.

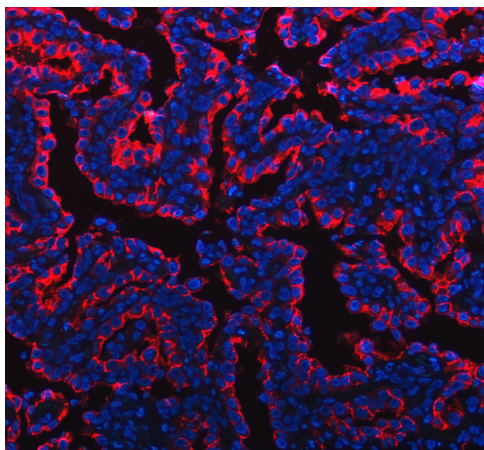
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-CA15-3/MUC1 antigen A03957-Aen affinity purified polyclonal antibody (A00187-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CA15-3/MUC1 at approximately 25-30 kDa. The expected band size for CA15-3/MUC1 is at 122 kDa.



IHC analysis of CA15-3/MUC1 using anti-CA15-3/MUC1 antibody (A00187-2).

CA15-3/MUC1 was detected in a paraffin-embedded section of human invasive adenocarcinoma of the lung tissue. The tissue section was incubated with rabbit anti-CA15-3/MUC1 Antibody (A00187-2) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of CA15-3/MUC1 using anti-CA15-3/MUC1 antibody (A00187-2).

CA15-3/MUC1 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. The tissue section was incubated with rabbit anti-CA15-3/MUC1 Antibody (A00187-2) at a dilution of 1:100. Cy3-conjugated Anti-rabbit IgG Secondary Antibody (red) (Catalog # BA1032) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).