MUC2 polyclonal antibody

Catalog: BS67784 Host: Rabbit Reactivity: Human, Mouse, Rat

BackGround:

Mucins are a family of large glycoproteins that create the structural component of mucus. Mucus functions as a blockade against pathogenic invasion and physical injury to the respiratory, gastrointestinal, and urogenital tracts. Mucins create a protective layer for epithelial cells as either membrane-bound (MUC1, MUC3, MUC16, and MUC17) or secreted (MUC2, MUC5AC, and MUC19) proteins. MUC2, or mucin-2, the main O-glycosylated protein found in mucus, is secreted by goblet cells. The structure of MUC2 contains cysteine-rich N- and C-terminal domains along with a protein core made up of heavily O-glycosylated mucin domains. The high levels of O-glycosylation along with disulfide bonding make MUC2 resistant to proteolytic cleavage. Mucin expression and glycan structure changes occur in cancers of the intestine and impact the development and progression of these cancers. The presence of MUC2 in the mucous layer of the colon helps prevent ulcerative colitis (UC) by inhibiting the invasion of bacteria.

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 128 kDa

Swiss-Prot:

Q02817

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/ICC (1/50 - 1/200)

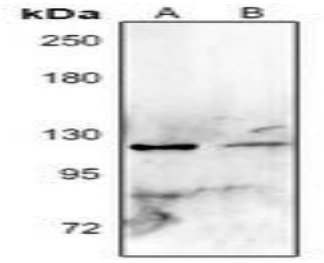
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

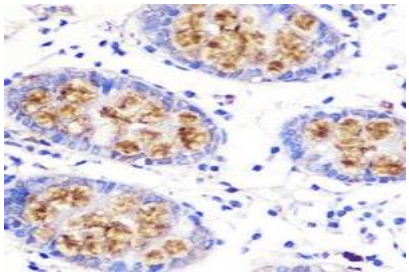
Specificity:

Recognizes endogenous levels of MUC2 protein.

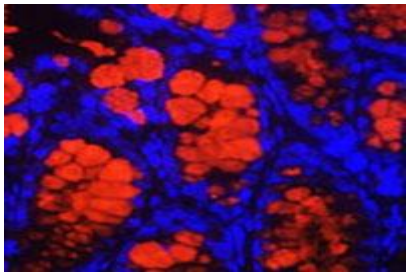
DATA:



Western blot analysis of MUC2 expression in mouse small intestine (A), rat small intestine (B) whole cell lysates.



Immunohistochemical analysis of MUC2 staining in human colon formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of MUC2 staining in mouse colon. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room

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temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 ℃ in a humidified chamber. Cells were washed with PBST and incubated with a AF594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

Note:

For research use only, not for use in diagnostic procedure.

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