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Anti-MUC2 Rabbit Monoclonal Antibody

Catalog Number: M01212-1

Overview

Product Name	Anti-MUC2 Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MUC2 Rabbit Monoclonal Antibody catalog # M01212-1. Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Monoclonal AAEO-13
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q02817

Technical Details

Immunogen	A synthesized peptide derived from human MUC2
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB 1:500-2000 IHC 1:50-200 ICC/IF 1:50-200 IP 1:20 FC 1:20

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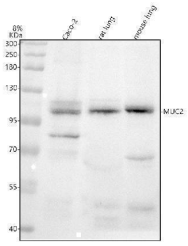
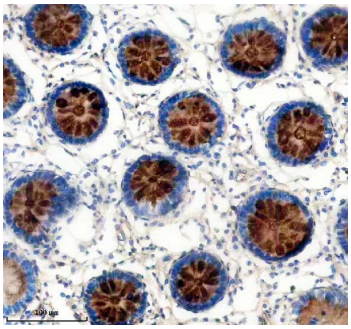
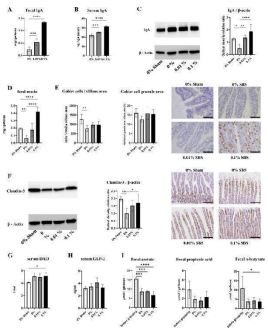
Anti-MUC2 Rabbit Monoclonal Antibody (M01212-1) Images



Western blot analysis of MUC2 using anti-MUC2 antibody (M01212-1). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Caco-2 whole cell lysates, Lane 2: rat lung tissue lysates, Lane 3: mouse lung tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-MUC2 antigen affinity purified monoclonal antibody (M01212-1) at 1:500 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 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for MUC2 at approximately 110 kDa. The expected band size for MUC2 is at 540 kDa.



IHC analysis of MUC2 using anti-MUC2 antibody (M01212-1). MUC2 was detected in a paraffin-embedded section of human colon 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 1:50 rabbit anti-MUC2 Antibody (M01212-1) 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.



Polyamines enhance mucosal defense factors in rats with massive intestinal resection. (A-B) Fecal and serum secretory IgA was measured using ELISA. n = 5–7/group. (C) IgA in ileum tissue was assessed using western blotting. n = 4–6/group. (D) Fecal mucin was measured using a fluorometric assay. n = 4–6/group. (E) Representative images of ileal villus showing immunostaining by Muc2 (original magnification, ×400; scale bars = 200 um). Left graphs show the number of goblet cells per unit villous area and the size of goblet cell secretion granule. (F) The expression of Claudin-3 in the ileum tissue was measured by western blot analysis. Representative images of ileal villus showing immunostaining by Claudin-3 (original magnification, ×200; scale bars = 100 um). (G) Serum DAO was measured by ELISA. n = 5–7/group. (H) Serum GLP-2 was measured by ELISA. n = 5–7/group. (I) Fecal short-chain fatty acid (SCFA) content was measured using high-performance liquid chromatography. n = 3–6/group. Data are presented as mean ± SD. Results of one-way ANOVA are represented as follows: * P

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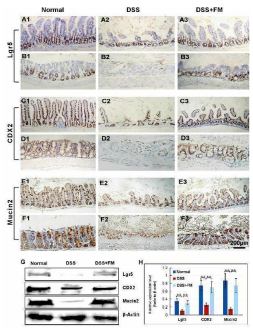

The distribution of Lgr5 + ISCs in the intestinalmucosa and the subcellular localization and relative expression level detection of epithelial function proteins CDX2 and villin in the intestinal mucosa of IBD at 7 days after termination of DSS administration. (A) The Lgr5 + ISCs (brown) in the small intestinal mucosa: (A1) the normal group, the villi and the crypts were arranged compactly, and Lgr5 + ISCs were observed in the crypts; (A2) the DSS group, the villi and the crypts were scattered, with few Lgr5 + ISCs; (A3) the DSS + B. subtilis -fermented milk group, there were more Lgr5 + ISCs in villi and crypts compared with those in the DSS group. (B) The Lgr5 + ISCs (brown) in the colonic mucosa: (B1) the normal group, the glands were arranged compactly, and there were large amounts of Lgr5 + ISCs at the bottom of the glands; (B2) the DSS group: the ulcers were replaced by scars. No Lgr5 + ISCs were observed in the scars; (B3) the DSS + B. subtilis -fermented milk group: the colonic epithelium was integrated, with some regenerated glands. A number of Lgr5 + ISCs were observed at the bottom of the regenerated glands. (C) The CDX2 was localized in the epithelial cellular nuclei (brown) by immunohistochemistry staining in the small intestinal mucosa: (C1) the normal group: the villi and the crypts were arranged compactly, and CDX2 + epithelial cells were observed on the surface of the villi and the crypts; (C2) the DSS group: the villi and the crypts were scattered, and few CDX2 + epithelial cells were observed on the surface of the crypt and the villi; (C3) the DSS + B. subtilis -fermented milk group: more villi and crypts were observed in comparison with the DSS group, and there were more CDX2 + epithelial cells covering the villi and crypts. (D) The CDX2 was localized in the epithelial cellular nuclei (brown) by immunohistochemistry staining in the colonic mucosa: (D1) the normal group: the colonic glands were arranged compactly, and CDX2 + epithelial cells were observed on the surface of the glands; (D2) the DSS group: the glands were scattered, and few CDX2 + epithelial cells were observed in the scar; (D3) the DSS + B. subtilis -fermented milk group: more colonic glands were observed in comparison with the DSS group, and there were more CDX2 + epithelial cells in the glands. (E) The Mucin2 was localized in the cytoplasm of the goblet cells (brown) by immunohistochemistry staining in the small intestinal mucosa: (E1) the normal group, a number of Mucin2 + goblet cells observed in the epithelium; (E2) the DSS group: only few Mucin2 + goblet cells were observed in the remaining villi and crypts; (E3) the DSS + B. subtilis -fermented milk group: more Mucin2 + goblet cells were observed in the recovered mucosa. (F) The Mucin2 was localized in the cytoplasm of the goblet cells (brown) by immunohistochemistry staining in the colonic mucosa: (F1) the normal group, large amounts of Mucin2 + goblet cells were observed in the mucosa; (F2) the DSS group: only few Mucin2 + goblet cells were observed in the scars; (F3) the DSS + B. subtilis -fermented milk group: more Mucin2 + goblet cells were observed in the recovered colonic mucosa. (G,H) Western blotting was applied for detection of the relative expression level of Lgr5, CDX2, and Mucin2 in the samples containing equivalent ileum and colon. The expression level of Lgr5, CDX2, and Mucin2 in the DSS group

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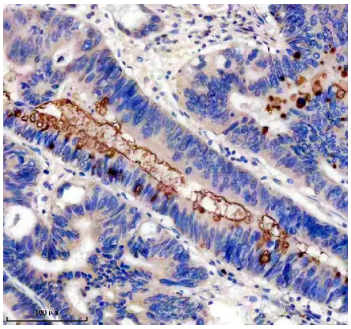
was significantly lower than that of the normal (control) group. The expression level of Lgr5, CDX2, and Mucin2 in the DSS + B. subtilis -fermented milk (FM) group was significantly higher than that of the DSS group (n = 5, ** represents p < 0.01).Index in PubMed under a CC BY license. PMID: 33519783



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For Research Use Only. Not for use in diagnostic procedures.