

Supplementary Materials

WT

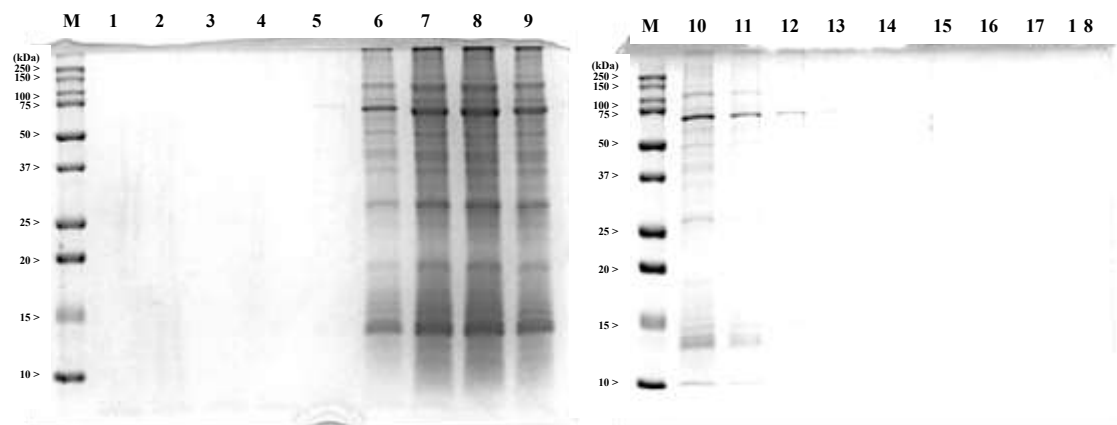


Figure S1. The original SDS-PAGE figures regarding fractionation and separation of rectal proteins in WT rats (Figure 3A). The concentration of polyacrylamide gels was 12.5% in the presence of 2-mercaptoethanol. Coomassie Brilliant Blue staining was performed to visualize the protein bands in each gel. Lane M is the molecular weight markers, and lanes 1 to 18 are the eighteen fractions after gel filtration chromatography (see Section 2.7). The protein bands were detected using the ChemiDoc™ XRS Plus Imaging System (Bio-Rad Laboratories, Inc., Hercules, CA, USA).

UCR

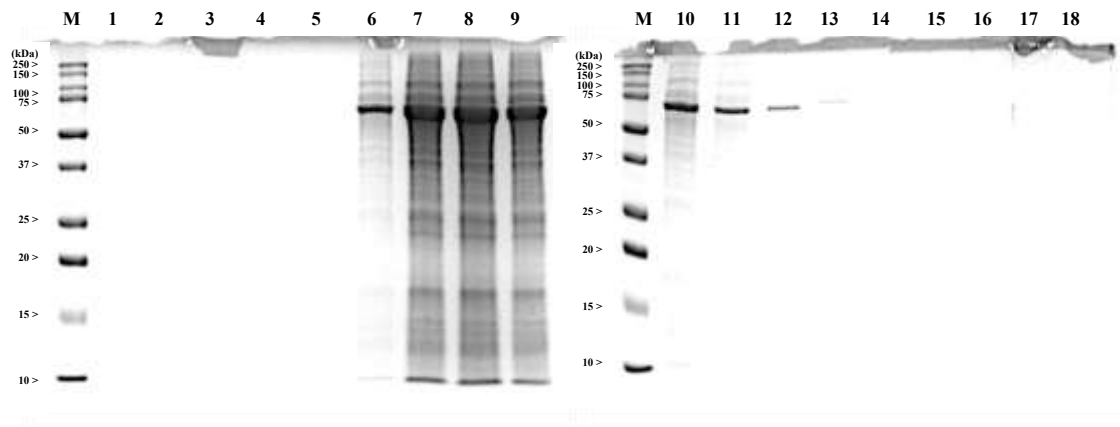


Figure S2. The original SDS-PAGE figures regarding fractionation and separation of rectal proteins in UCR group (Figure 3B). The concentration of polyacrylamide gels was 12.5% in the presence of 2-mercaptoethanol. Coomassie Brilliant Blue staining was performed to visualize the protein bands in each gel. Lane M is the molecular weight markers, and lanes 1 to 18 are the eighteen fractions after gel filtration chromatography (see Section 2.7). The protein bands were detected using the ChemiDoc™ XRS Plus Imaging System (Bio-Rad Laboratories, Inc., Hercules, CA, USA).

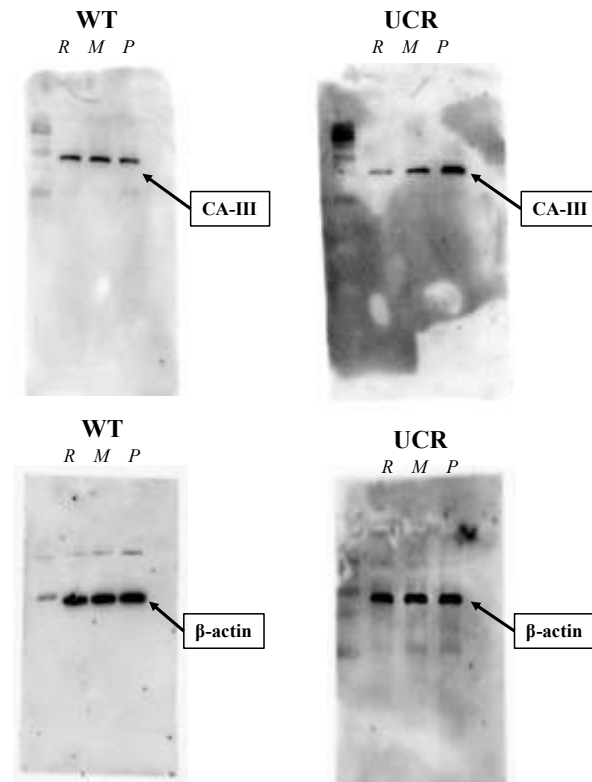


Figure S3. The original Western blotting figures of CA-III and β -actin detected in the colon of WT rats and UCR group on Day 10 (Figure 6B). The large colon was divided into three segments (R: rectum, M: middle colon, P: proximal colon), and the proteins extracted from them were subjected to SDS-PAGE (see Section 2.8). After SDS-PAGE, the proteins were transferred to nitrocellulose membranes (0.2 μ m pore size) using a Trans-Blot Turbo (Bio-Rad Laboratories, Inc., Hercules, CA, USA). After the membranes were blocked with Blocking One (Nacalai Tesque Co., Ltd., Kyoto, Japan), they were incubated at 4 $^{\circ}$ C for 1 h with 2 μ g/mL of anti-CAIII antibody (upper two panels) or anti- β -actin antibody (lower two panels). The membranes were then washed three times for 5 min with 10 mM Tris-HCl buffer (pH 7.4) and 0.9% NaCl (buffer A), twice with buffer A/0.1% Tween 20, and once with buffer A before being incubated with 2 μ g/mL rabbit anti-mouse IgG H&L (HRP) at room temperature for 1 h. After the membranes were washed, antibody-bound proteins were detected using the ChemiDocTM XRS Plus Imaging System and Clarity Western ECL substrate (Bio-Rad Laboratories, Inc.).

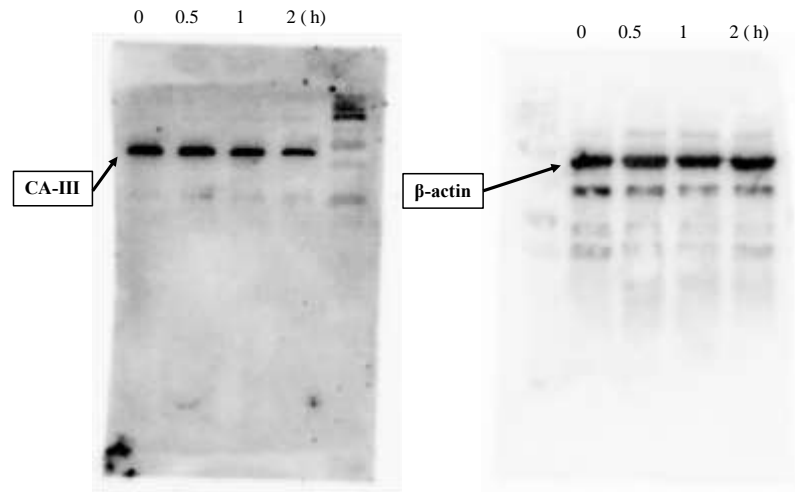


Figure S4. The original Western blotting figures of CA-III and β -actin detected in M Φ (Figure 7A). The proteins extracted from M Φ stimulated with LPS for 0, 0.5, 1, 2 h were subjected to SDS-PAGE (see Section 2.8). After SDS-PAGE, the proteins were transferred to nitrocellulose membranes (0.2 μ m pore size) using a Trans-Blot Turbo (Bio-Rad Laboratories, Inc., Hercules, CA, USA). After the membranes were blocked with Blocking One (Nacalai Tesque Co., Ltd., Kyoto, Japan), they were incubated at 4 °C for 1 h with 2 μ g/mL of anti-CAIII antibody (left panel) or anti- β -actin antibody (right panel). The membranes were then washed three times for 5 min with 10 mM Tris-HCl buffer (pH 7.4) and 0.9% NaCl (buffer A), twice with buffer A/0.1% Tween 20, and once with buffer A before being incubated with 2 μ g/mL rabbit anti-mouse IgG H&L (HRP) at room temperature for 1 h. After the membranes were washed, antibody-bound proteins were detected using the ChemiDoc™ XRS Plus Imaging System and Clarity Western ECL substrate (Bio-Rad Laboratories, Inc.).

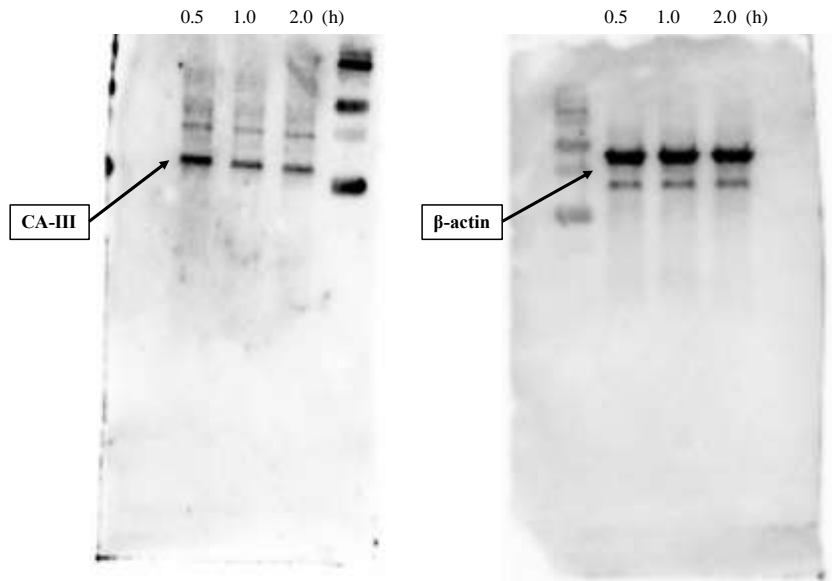


Figure S5. The original Western blotting figures of CA-III and β -actin detected in M Φ (Figure 8A). The proteins extracted from M Φ incubated with anti-CAIII for 0.5, 1, 2 h were subjected to SDS-PAGE (see Section 2.8). After SDS-PAGE, the proteins were transferred to nitrocellulose membranes (0.2 μ m pore size) using a Trans-Blot Turbo (Bio-Rad Laboratories, Inc., Hercules, CA, USA). After the membranes were blocked with Blocking One (Nacalai Tesque Co., Ltd., Kyoto, Japan), they were incubated at 4 °C for 1 h with 2 μ g/mL of anti-CAIII antibody (left panel) or anti- β -actin antibody (right panel). The membranes were then washed three times for 5 min with 10 mM Tris-HCl buffer (pH 7.4) and 0.9% NaCl (buffer A), twice with buffer A/0.1% Tween 20, and once with buffer A before being incubated with 2 μ g/mL rabbit anti-mouse IgG H&L (HRP) at room temperature for 1 h. After the membranes were washed, antibody-bound proteins were detected using the ChemiDoc™ XRS Plus Imaging System and Clarity Western ECL substrate (Bio-Rad Laboratories, Inc.).