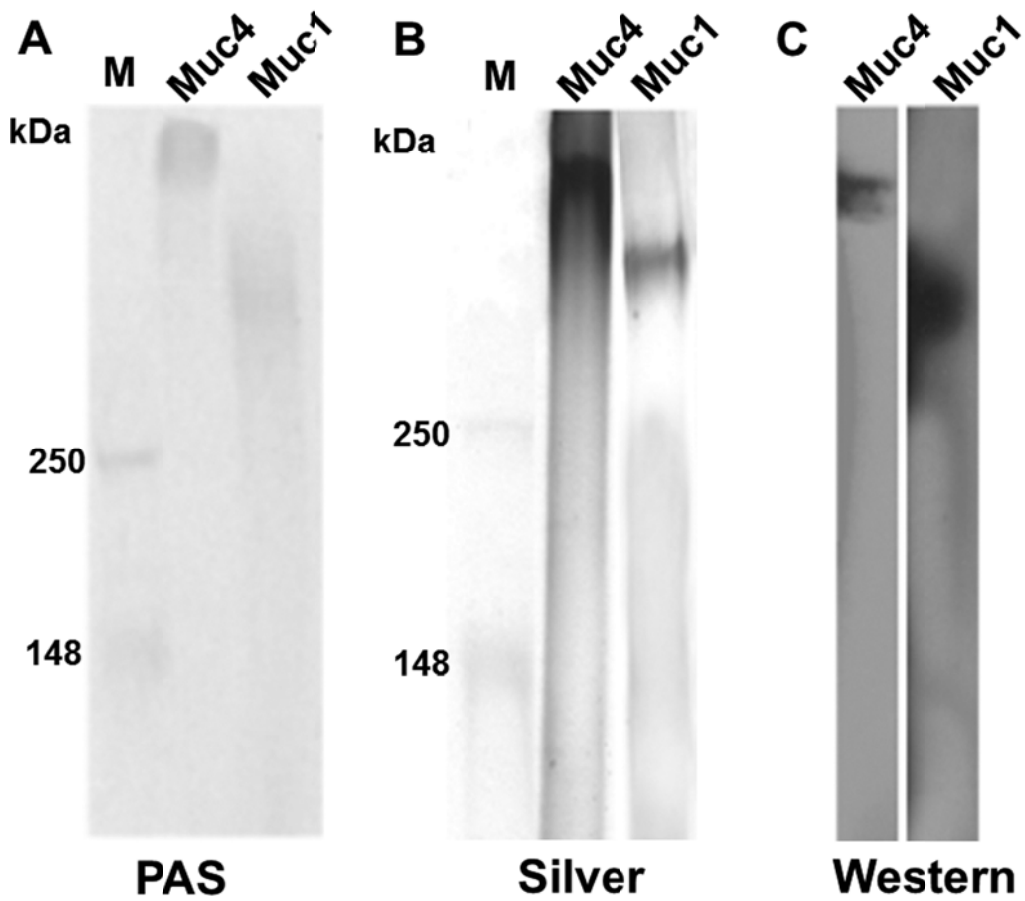
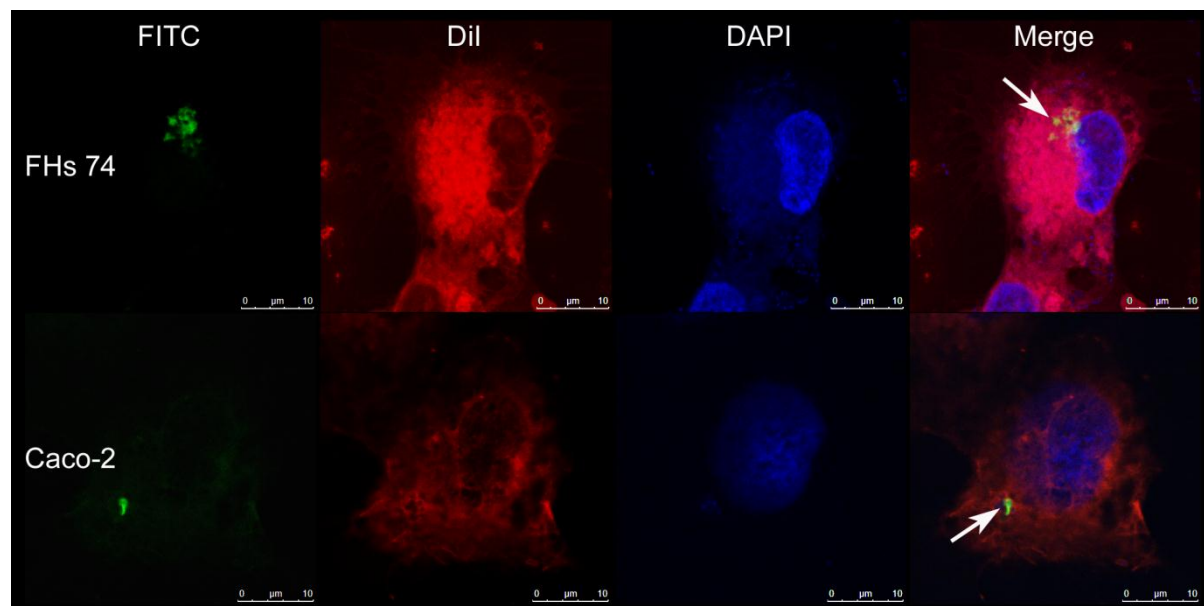


Online Supporting Material



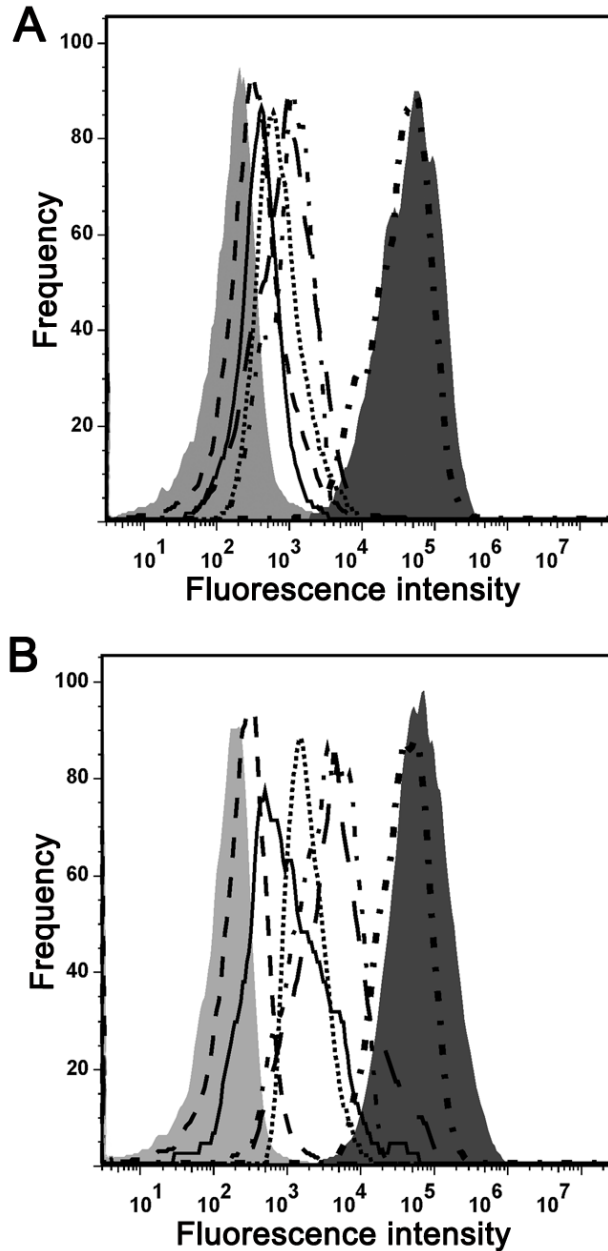
Supplemental Figure 1. Purified mucin 4 and mucin 1 were stained with PAS to detect carbohydrates (**A**). Purified mucin 4 and mucin 1 were stained with silver to visualize proteins (**B**). Mucin 4 or mucin 1 was identified by western blot analysis against mucin 4 antibody or mucin 1 antibody (**C**). M: Marker; Muc1: Mucin 1; Muc 4: Mucin 4.

Online Supporting Material



Supplemental Figure 2. Confocal fluorescence microscopy image of FHs 74 Int and Caco-2 intestinal epithelial cells invaded by FITC labeled SL1344 *in vitro*. White arrow indicates intracellular FITC labeled SL1344. Scale bar = 10 μm .

Online Supporting Material



Supplemental Figure 3. FITC labeled SL1344 invasion into FHs 74 Int (A) and into Caco-2 (B) intestinal cells was measured by flow cytometry. The negative control is fluorescence intensity of untreated epithelial cells (grey filled histogram), the positive control is fluorescence intensity of epithelial cells incubated with FITC labeled SL1344 without inhibitor (dark grey filled histogram). Invasion after treatment by BSA (heavy complex line), whole milk (long dashed line), skim milk (complex line), MFGM (dotted line), mucin 4 (solid line) and mucin 1 (dashed line).