

Supplementary Materials

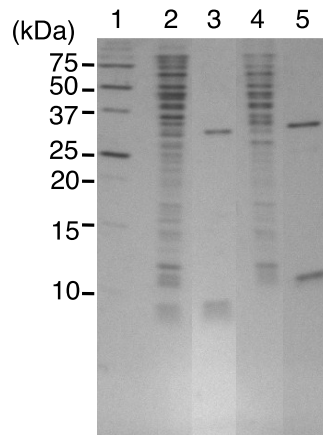


Figure S1. Purities of purified recombinant Stx1 and Stx2 proteins. Purity of purified recombinant Stx1 and Stx2 were examined by SDS-PAGE followed by silver staining. Purified preparations gave two stained bands correspond to A and B subunits of Stx proteins. 1: molecular weight maker; 2: whole cell lysate of *E. coli* strain YO-01 (pKTJ5-15x); 3: purified recombinant Stx1 (625 ng); 4: whole cell lysate of *E. coli* HB101 (pKTN817) strain; 5: purified recombinant Stx2 (625 ng).

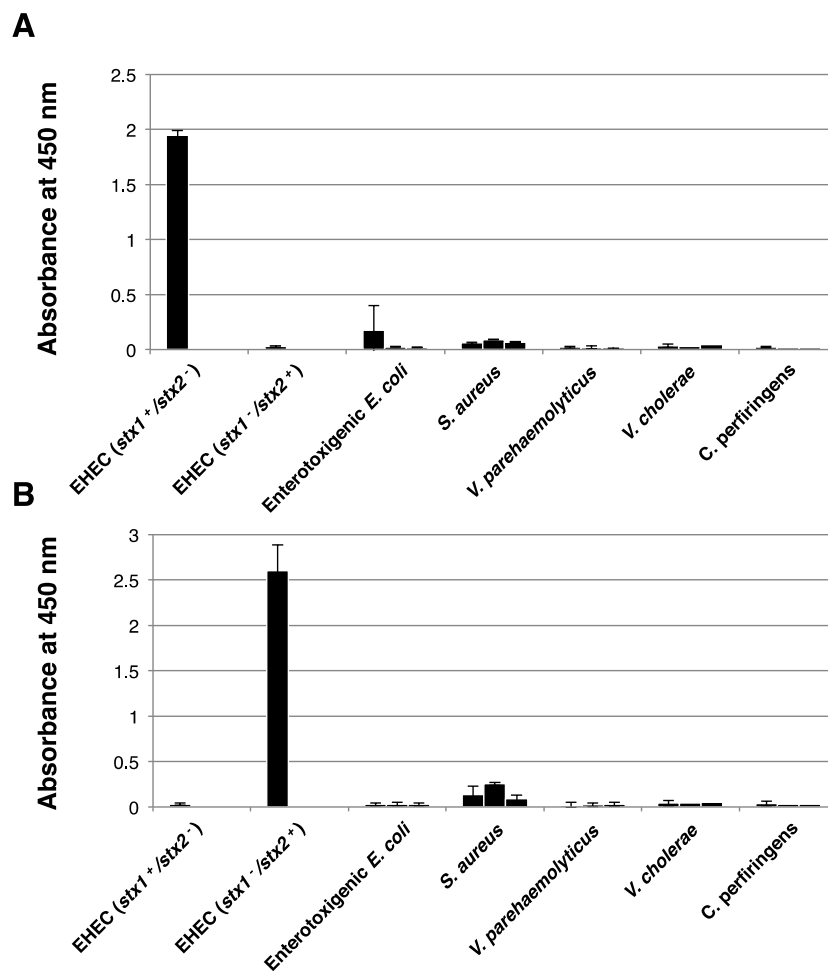


Figure S2. *Cont.*

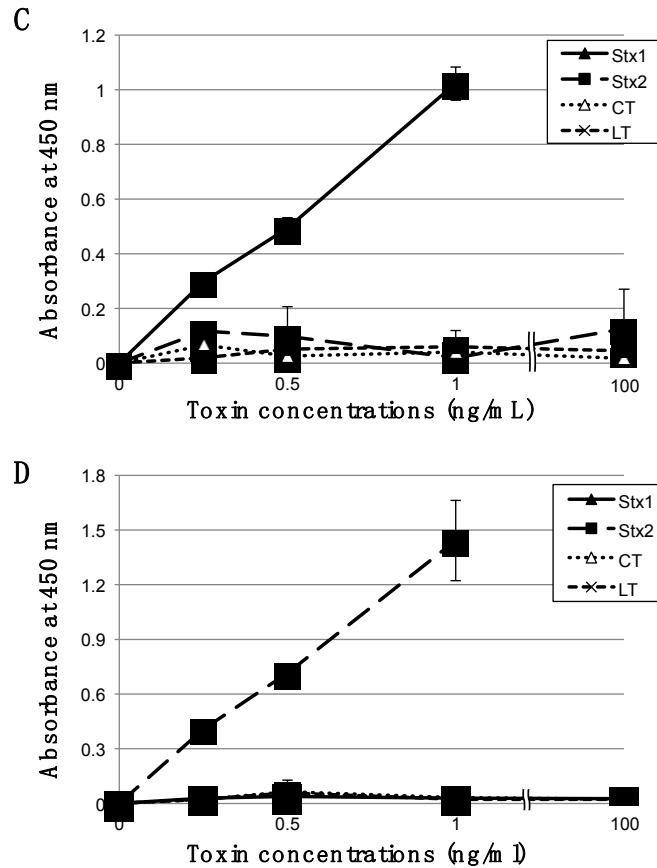


Figure S2. Specificities of bead-ELISA. (A,B) Various food-borne pathogens were examined by bead-ELISA specific for Stx1 (A) and Stx2 (B). Overnight cultures of EHEC (in CAYE broth), Enterotoxigenic *E. coli* (in CAYE broth), *S. aureus* (in BHI broth), *V. parahaemolyticus* (in Mannitol-salt peptone water), *V. cholerae* (in AKI broth) and *C. perfringens* (in Duncan-Strong Broth) were sonicated with maximum power of Handy Sonic UR-20P (TOMY SEIKO CO., LTD, Tokyo, Japan) for 45 s. Clear fractions obtained after centrifugation ($12,000\times g$ for 10 min.) of sonicated cultures were analyzed by bead-ELISA. For Enterotoxigenic *E. coli*, *S. aureus*, *V. parahaemolyticus*, *V. cholerae* and *C. perfringens*, 3 independent isolates were analyzed, and each bars indicates the results for each independent isolates. Data are means \pm SD of values from three experiments. No nonspecific reactions were observed in all the experiments; (C,D): Purified AB₅ toxins were examined by bead-ELISA specific for Stx1 (C) and Stx2 (D). Various concentrations of purified recombinant Stx1, Stx2, cholera toxin (CT) and *E. coli* heat-labile enterotoxin (LT) were examined by bead-ELISA. Data are means \pm SD of values from three experiments. No nonspecific reactions were observed in all the experiments.