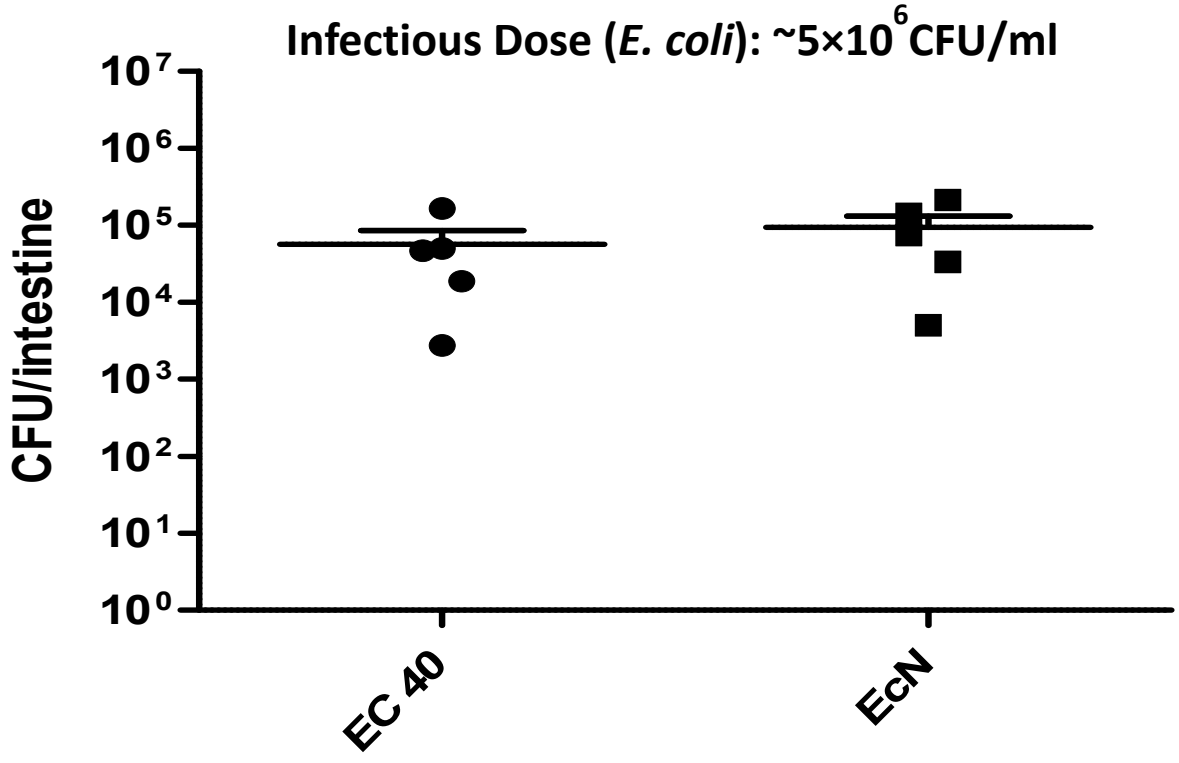
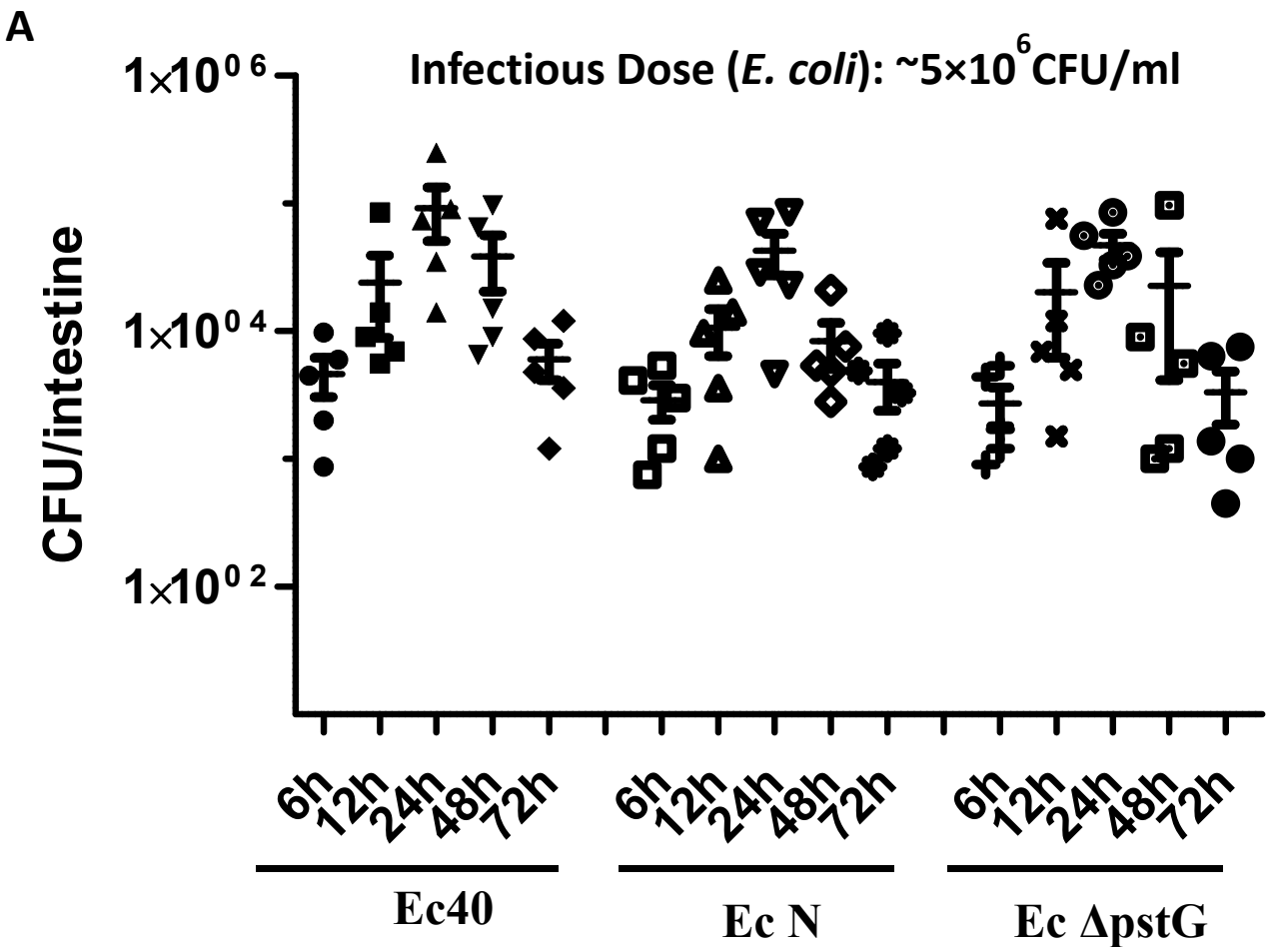


Figure S1: Colonization of *E. coli* strains in zebrafish intestine. Zebrafish were exposed to ~5×106 cfu/ml of either Ec 40 or EcN. After 6 h of inoculation and then 18 h of incubation, fish were sacrificed and intestinal *E. coli* (Ec 40 and Ec N) levels were determined by plating of serial dilutions of the intestinal homogenates.


A
Infectious Dose (E. coli): ~5×10^6 CFU/ml
CFU/intestine
1×10^06
1×10^04
1×10^02
6h
12h
24h
48h
72h
Ec40
Ec N
Ec ΔpstG

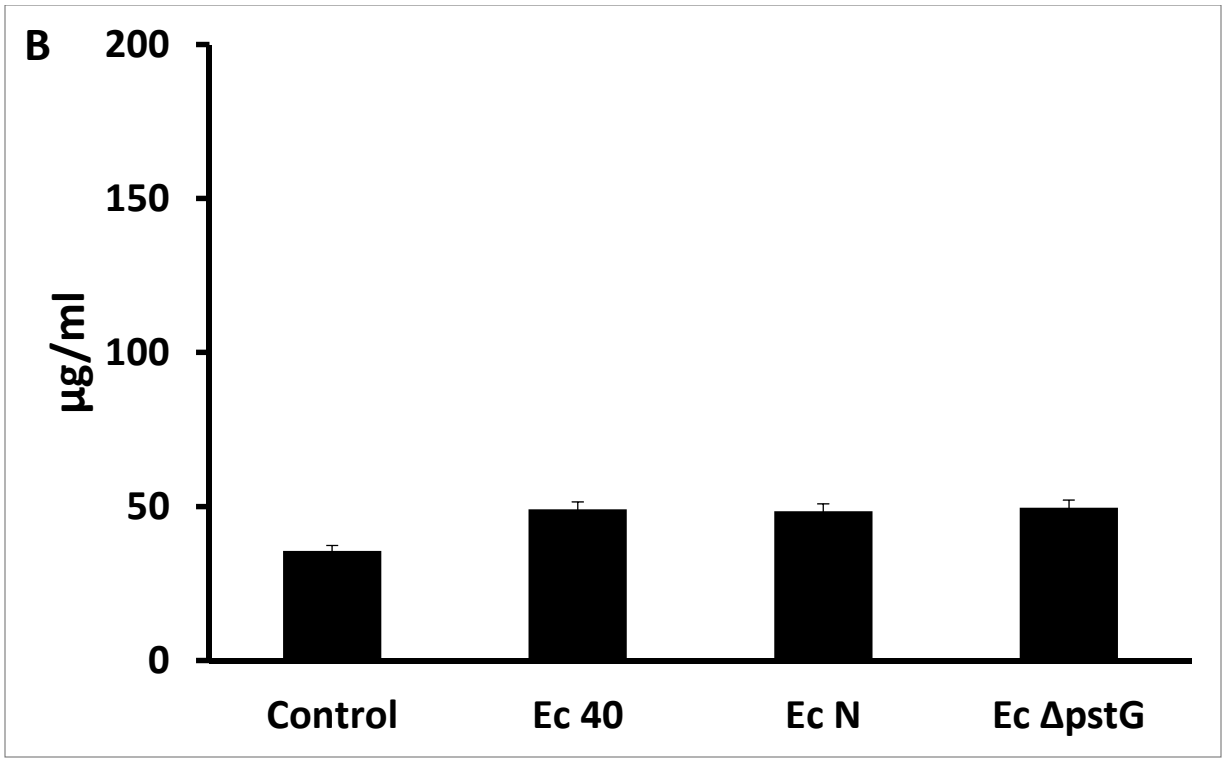


Figure S2: (A)Time dependent colonization of *E. coli* strains in zebrafish intestine. Zebrafish were inoculated with ~5×106 cfu/ml of Ec 40, Ec N or Ec ΔptsG for 6 h. After 6h, 12h, 24h, 48h and 72h of incubation fish were sacrificed and intestinal *E. coli* (Ec 40, Ec N and Ec ΔptsG) levels were determined by plating of serial dilutions of the intestinal homogenates. A significant level of colonization was observed up to 72 h, with the highest peak at 24 h. (B) Mucin level in excreted water from *E. coli* colonized fish. Fish were infected with three *E. coli* strains (Ec 40, Ec N and Ec ΔptsG) as indicated under the x axis. After 24 h of infection, mean values of mucin detected in water by modified PAS assay are indicated by the black bars above each infectious dose. The change of mucin level in excreted water is non-significant compare to the non-infected control group. Error bars indicate standard deviation

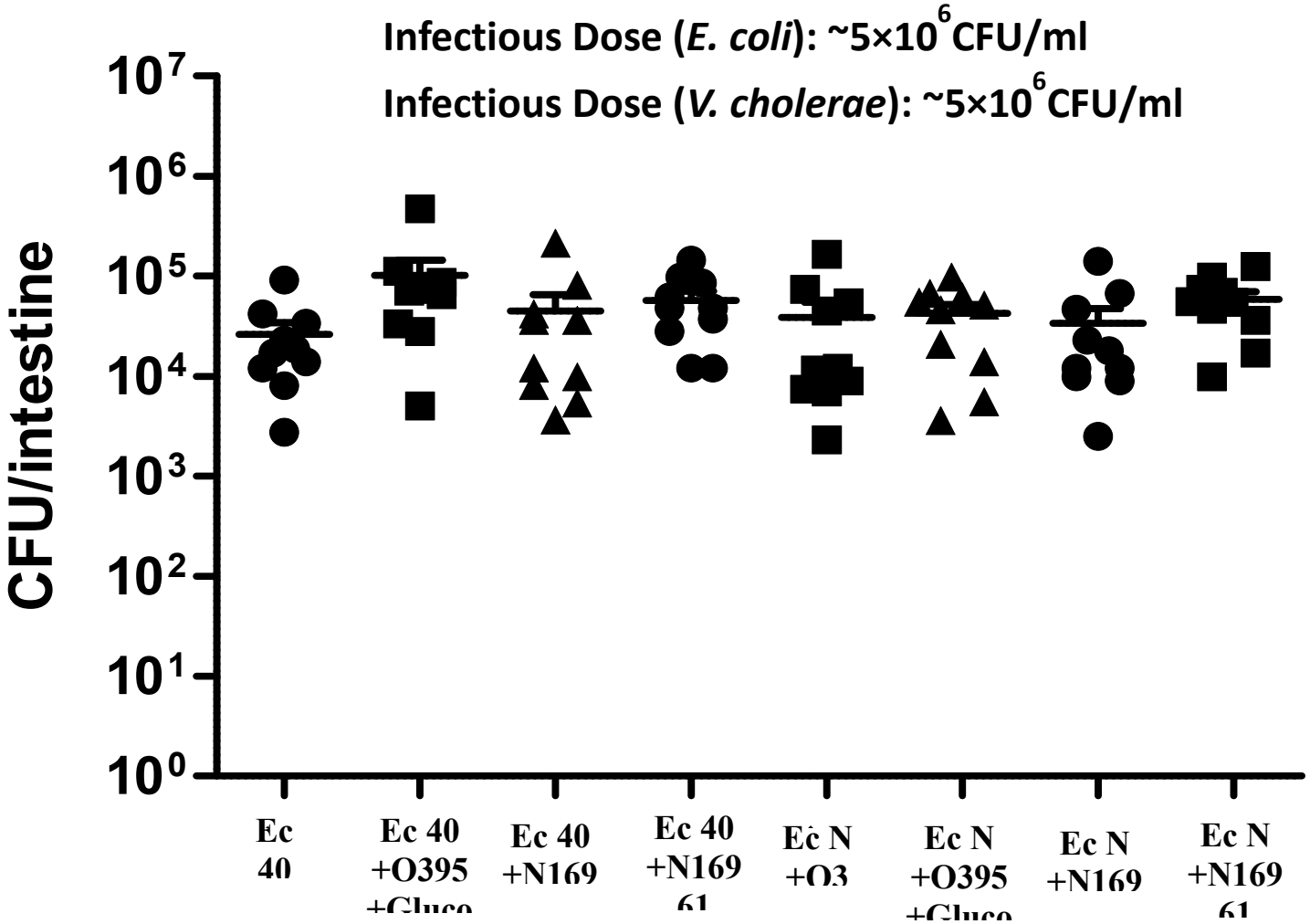


Figure S3: Colonization levels of *E. coli* strains in zebrafish intestine in the presence of glucose and *V. cholerae* infection. Zebrafish were fed 1% glucose for 12 h. ~5×106 cfu/ml of Ec 40 and Ec N were co-inoculated with ~5×106 cfu/ml of either *V. cholerae* O395 or N16961 for 6 h. After 18 h fish were sacrificed and intestinal *E. coli* (Ec 40 and Ec N) levels were determined by plating of serial dilutions of the intestinal homogenates.

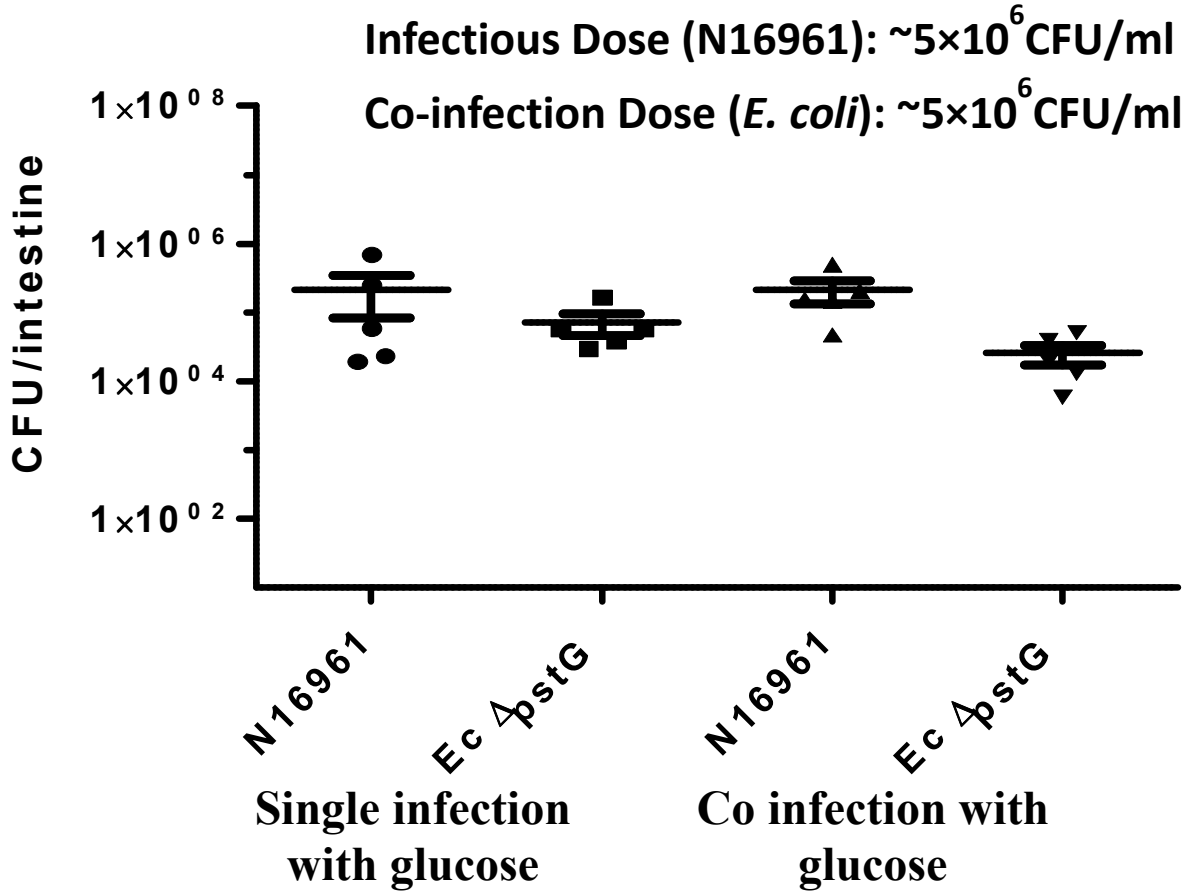


Figure S4: Effect of *E. coli* sugar transport mutant strain (Ec Δ*ptsG*) plus glucose on *V. cholerae* colonization in zebrafish intestine. Zebrafish were fed 1% glucose for 12 h. ~5×106 cfu/ml of Ec Δ*ptsG* and ~5×106 cfu/ml of *V. cholerae* N16961 were inoculated either for single infection or 1:1 co-infection as indicated below the X axis . *V. cholerae* and *E. coli* levels were determined by plating of serial dilutions of the intestinal homogenates. Horizontal bar indicates mean colonization level for each group and individual symbols indicate the results for individual fish. NS indicates non-significant difference.

Table S1: List of strains & plasmids.

Strains	Description	Source/reference
Vc N16961	**El Tor, Ogawa, Sm^r**	**Laboratory collection**
Vc O395	**Clasical, Ogawa or Inaba, Sm^r**	**Laboratory collection**
EcN	***E. coli* Nissle 1917 human isolates, probiotic strain**	**Prof. Rudolf von Bünau, Ardeypharm**
Ec 40	***E.coli* sample 40 human isolates, "A" phylotype**	**[13]**
MG1655Δ*ptsG*	***E. coli* K12, sugar transport mutant**	**[13]**

Plasmids	Description	Source/reference
pSMC 21	**Amp^r 100 µg/ml; Kan^r 50 µg/ml**	**Dr. Roberto Kolter,** Harvard Medical School
pKK177-3R1	**Amp^r 100 µg/ml**	**[37]**
pBAD 18	**Kan^r 50µg/ml**	**Laboratory collection**

Table S2: Gut pH of fish after *E. coli* inoculation with glucose

***E. coli* inoculation with glucose**	**0h**	**6h**	**12h**	**24h**	**48h**	**72h**
Ec 40 with single glucose feeding	**8**	**8**	**6.5**	**6**	**8**	**8**
Ec 40 with daily glucose feeding	**8**	**8**	**6.5**	**6.5**	**6**	**6.5**