Supporting Information

Udho et al. 10.1073/pnas.0910023106

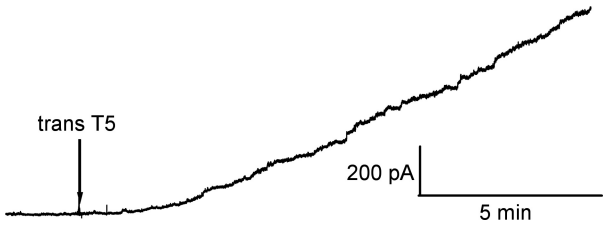

Fig. S1. Glucose can also insert FhuA into the membrane. The current trace begins (at zero current) after 1.4 nM FhuA was added to the *cis* compartment in the presence 2.6 M glucose and the *cis* compartment was perfused with buffer 20 min later removing both glucose and FhuA in solution. The arrow indicates the addition of T5 phage (1×10^{11} PFU) to the opposite (*trans*) compartment. The increase in conductance indicates that glucose inserted FhuA into the membrane in a manner allowing T5 phage to interact with the extracellular loops of FhuA on the *trans* side of the membrane.

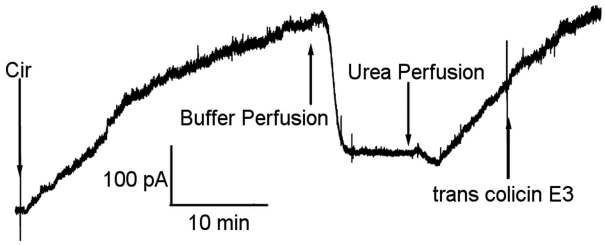

Fig. S2. Colicin E3 cannot inhibit the 4 M urea-induced conductance increase of Cir. After exposure of Cir to *cis* 4 M urea, and then removal of urea, reintroduction of *cis* urea resulted in the expected conductance increase. This conductance increase was uninhibited by the presence of *trans* 150 nM colicin E3.

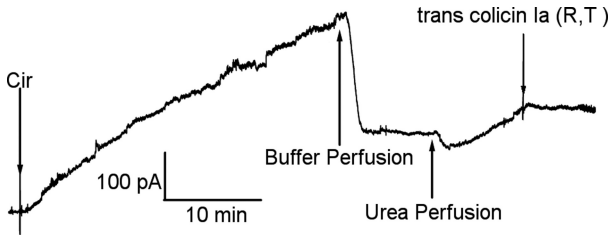

Fig. S3. Colicin Ia missing its C-terminal domain can arrest the 4 M urea-induced conductance increase of Cir. After exposure of Cir to *cis* 4 M urea, and then removal of urea, reintroduction of *cis* urea resulted in the expected conductance increase. Addition of *trans* 15 nM Colicin Ia R-T (missing the C-terminal domain) arrested the increase in conductance.