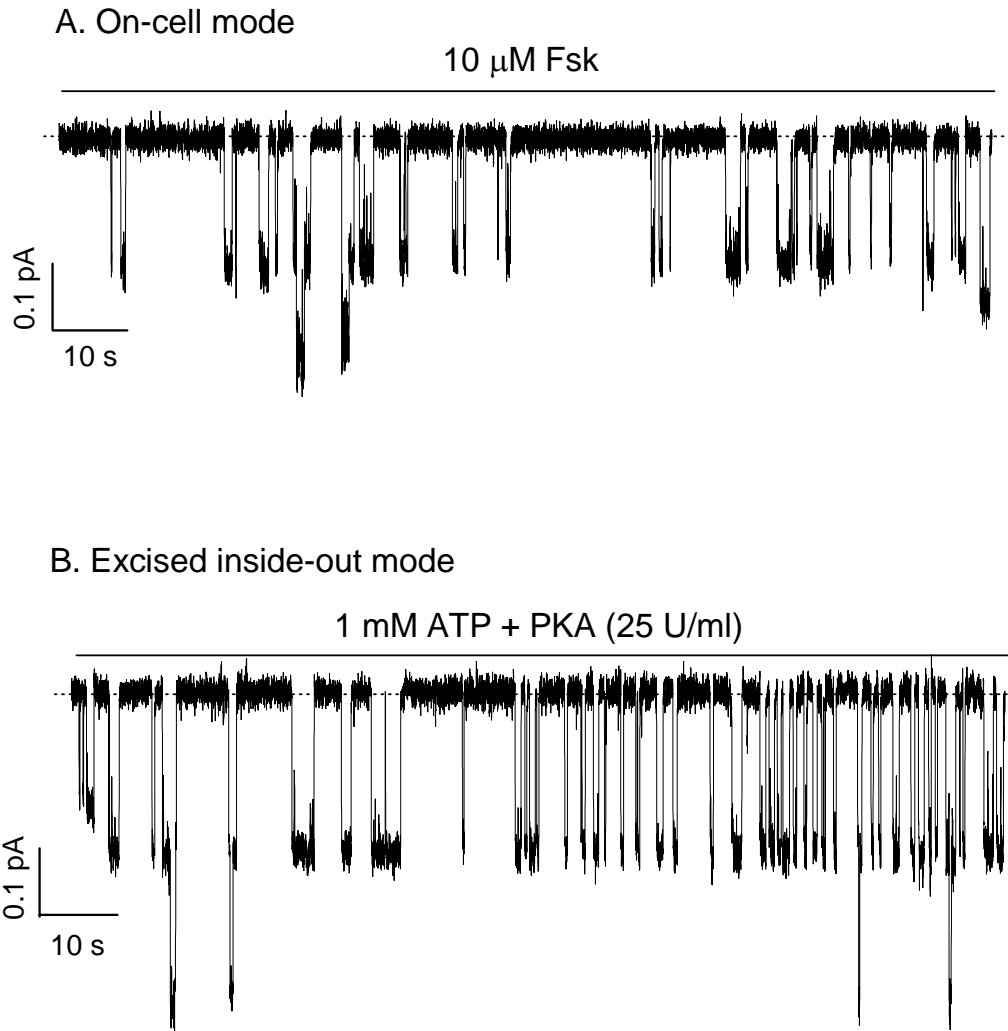


**Figure S1.** The ATP concentration dependence of  $\Delta$ R-CFTR. (A) A continuous current trace showing the effects of different concentrations of ATP on  $\Delta$ R-CFTR channel activity. (B) The dose-response relationship between [ATP] and the single-channel open probability ( $P_o$ ). All data points are presented as mean  $\pm$  SEM of at least five values obtained from different patches at different ATP concentrations ( $\bullet$ ). Data are fitted with the Michaelis-Menten equation. Overlaid open circles ( $\circ$ ) represent the values of  $P_o$  measured for WT-CFTR channels (from Zeltwanger et al., 1999).



**Figure S2.** Gating mode shift in WT-CFTR. (A) A continuous recording of WT-CFTR in the on-cell mode. Note the longer openings and closings (slow-gating mode) relative to those in B. (B) Recording from the same patch as in A right after excision into an excised inside-out mode. Note that the slow gating mode continues for  $\sim$ 1 min before it shifts to fast gating mode. The single channel amplitude becomes larger after patch excision because of an increase of the driving force.