Tsai et al., http://www.jgp.org/cgi/content/full/jgp.200810186/DC1

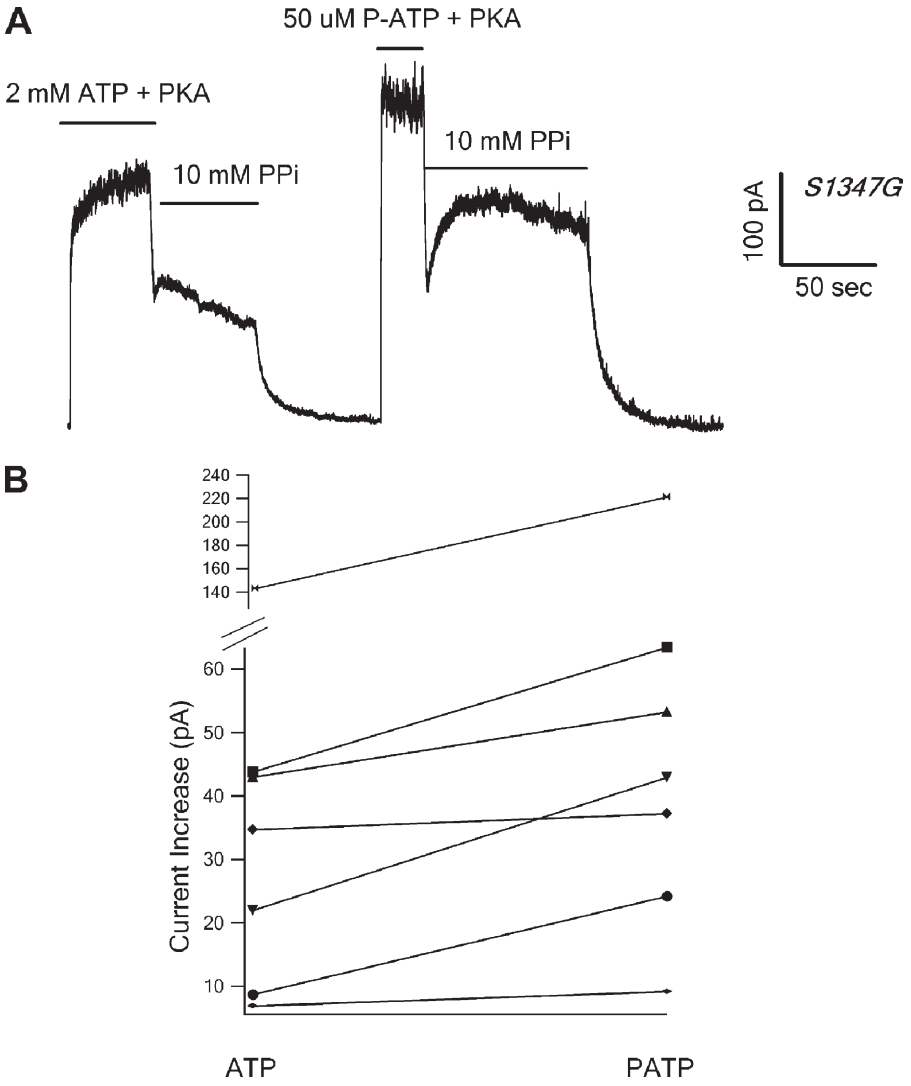

Figure S1. Effects of MgPPi on S1347G-CFTR. (A) S1347G channels were activated with either 2 mM ATP or 50 µM P-ATP plus PKA. Subsequent solution switch to 10 mM MgPPi led to reopening of channels. Note that MgPPi not only induced a smaller amount of current (56 ± 3.2% of ATP current; $n = 7$) compared with WT-CFTR (125 ± 7% of ATP current; $n = 5$; $P < 0.01$), but the current dropped rapidly over time; even MgPPi was continuously applied (compared with Fig. S3). Pretreatment of P-ATP partially restored the decreased response of S1347G-CFTR to MgPPi. In addition, a continuous application of MgPPi can better sustain the macroscopic current than channels opened by ATP. (B) A comparison between MgPPi-induced maximal current after channels were opened by ATP or PATP. Data from seven patches were presented here (paired *t* test; $P < 0.05$).

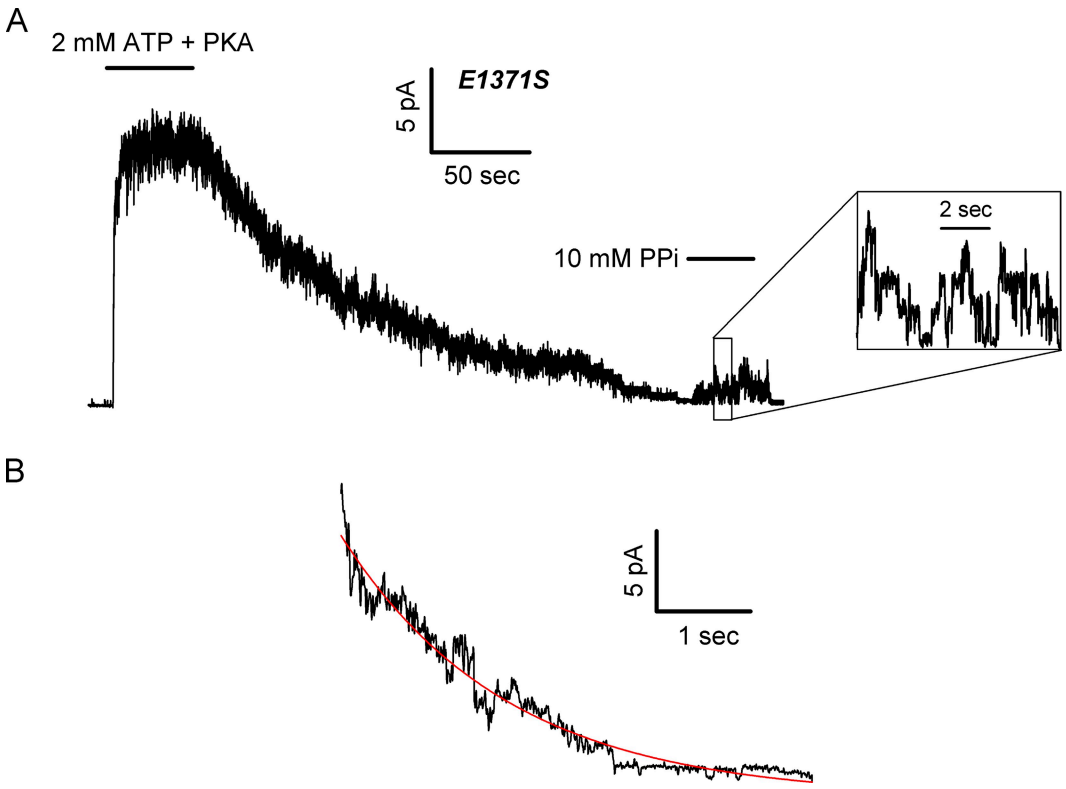

Figure S2. Effects of MgPPi on E1371S-CFTR. (A) E1371S channels were first activated with 2 mM ATP plus PKA. The slow current relaxation upon washout gave a time constant of $\tau = 126.1 \pm 24.2$ s ($n = 5$). After all channels closed, the application of 10 mM MgPPi alone induced short openings (inset). (B) Current relaxations upon MgPPi washout from five patches were summed. A single-exponential fit of the ensemble current results in $\tau = 1.65$ s.

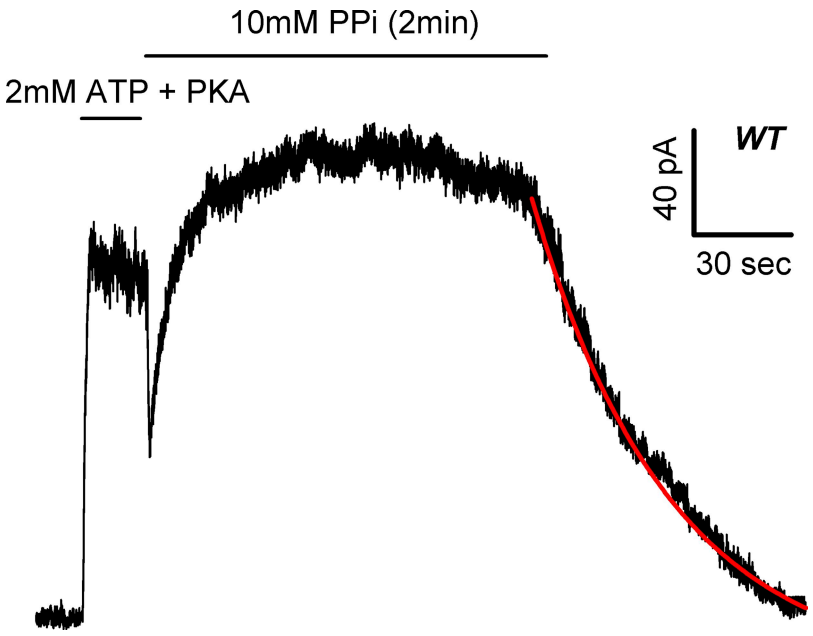

Figure S3. A continuous current trace shows that macroscopic WT-CFTR current from locked-open channels can be maintained for >2 min when continuously treated with 10 mM MgPPi. The current relaxation after MgPPi withdrawal gave a time constant of $\tau = 35.7 \pm 6.4$ s ($n = 3$).