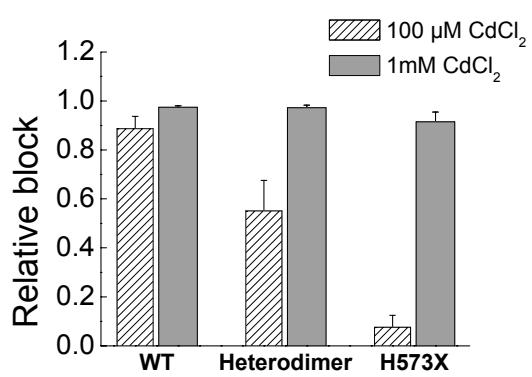


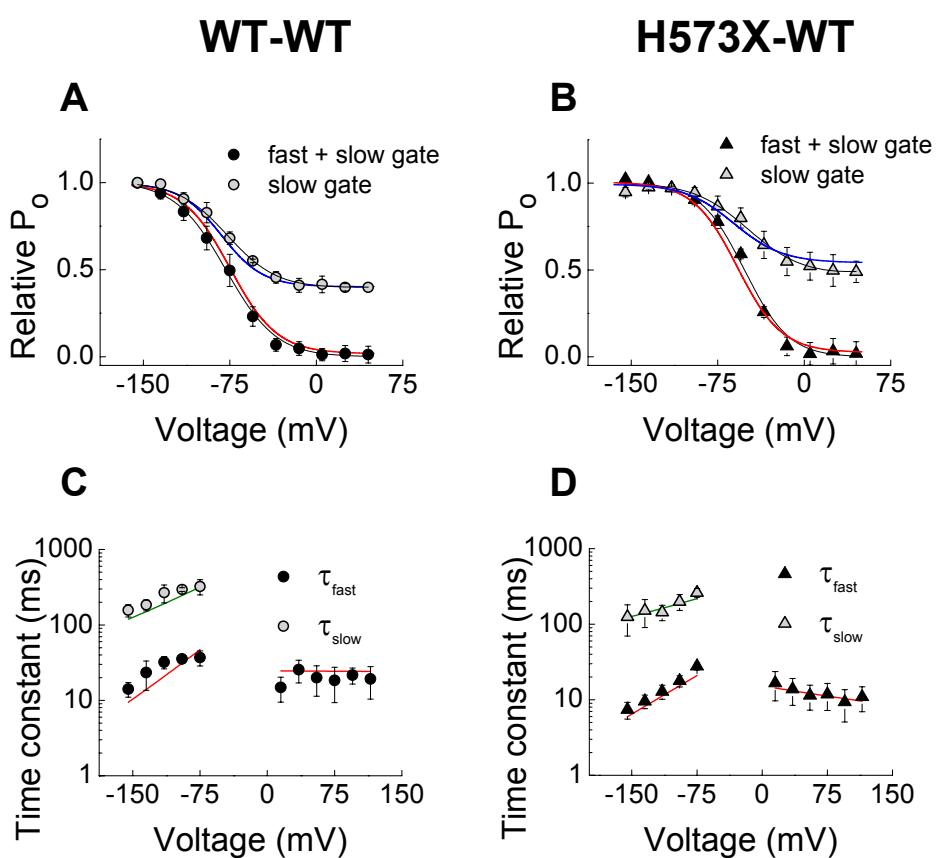
Figure S1



**Figure S1 Blcok of full length and truncated ClC-2 by Cd<sup>2+</sup>**

Relative block of WT hClC-2 (n=4), H573X hClC-2 (n=5) and H573X-WT heteroconcatamers (n=5) determined 5 minutes after application of 100  $\mu$ M or 1 mM CdCl<sub>2</sub>.

Figure S2



**Figure S2 Electrophysiological characterization of WT-WT and H573X-WT hClC-2 concatamers**

*A*, Voltage dependences of the relative apparent ( $n=5$ ) and slow gate ( $n=4$ ) open probabilities for WT-WT homo concatamer. Continuous black lines give fits to Boltzmann functions. The red and the blue lines depict the relative apparent and slow gates open probabilities of WT hClC-2. *B*, Voltage dependences of the apparent ( $n=3$ ) and slow gates ( $n=3$ ) open probabilities for H573X-WT hetero concatamers. Continuous lines give fits to Boltzmann functions. The red and the blue lines depict the relative apparent and slow gates open probabilities of the WT-H573X hetero concatamer. *C*, Voltage-dependences of the fast and slow activation and deactivation time constants of the WT-WT homo concatamer ( $n=5$ ). Red and green lines depict the correspondent time constants in hClC-2 WT. *D*, Voltage-dependences of the fast and slow activation and deactivation time constants of the H573X-WT hetero concatamer. Red and green lines depict the correspondent time constants in WT-H573X hetero concatameric channels.