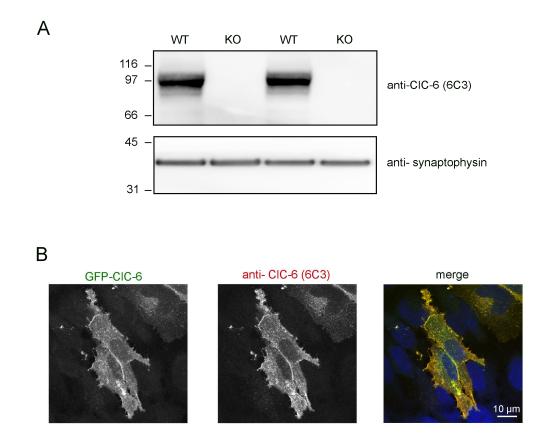
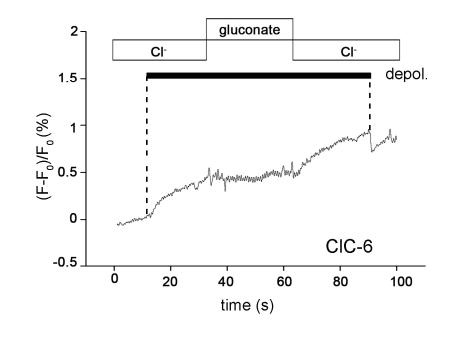
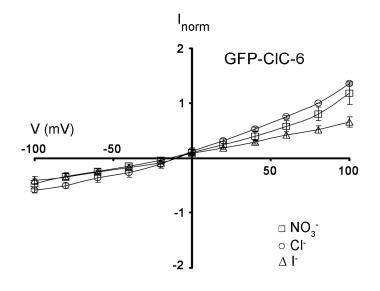
## SUPPLEMENTAL FIGURES TO NEAGOE ET AL.



<u>Supplemental Fig. 1.</u> Characterization of a new CIC-6-specific antibody (6C3). *A*, Immunoblot of brain membranes (40  $\mu$ g/lane) from two CIC-6 KO and two WT littermates probed with rabbit anti-CIC-6 (6C3; directed against the C-terminal peptide TPYPNLYPDQSPS) and mouse anti-synaptophysin (SynapticSystems) antibodies, respectively. *B*, HeLa cells PFA-fixed and immunostained with rabbit anti-CIC-6 (6C3) (red in merge) 36 h after transient transfection with GFP-CIC-6 (GFP signal, green in merge).



<u>Supplemental Fig. 2.</u> Voltage-driven  $H^+$  transport in oocytes expressing ClC-6 is chloridedependent. Replacing chloride with gluconate in the external solution abolishes alkalinization (n=2 oocytes), like in other experiments with GFP-ClC-6 (Fig. 3A).



<u>Supplemental Fig. 3.</u> Ion selectivity of GFP-CIC-6 in CHO cells. Normalized current of 4 cells is represented as mean  $\pm$  SEM. Different extracellular anions were consecutively added on the same cell and the data were normalized to values in chloride solution at +80 mV. The normalized values at 80 mV were 0.51  $\pm$  0.06 (p=0.0002) in the presence of extracellular iodide and 0.80  $\pm$  0.12 in the presence of extracellular nitrate (p=0.12).