



**Figure S6.** Coupling of Cl<sup>-</sup>/H<sup>+</sup> transport in E202 mutant transporters.

a. Cl<sup>-</sup> (*green*) and H<sup>+</sup> (*blue*) transport in indicated CLC-ec1 antiporters. Red dashed line shows initial velocity of ion movements. Scale bars indicate 100 nmole of Cl<sup>-</sup> or H<sup>+</sup> and 10 seconds. b. Correlation plot of Cl<sup>-</sup> turnover, H<sup>+</sup> transport rate, and stoichiometry of Cl<sup>-</sup>/H<sup>+</sup> transport.