

Expanded View Figures

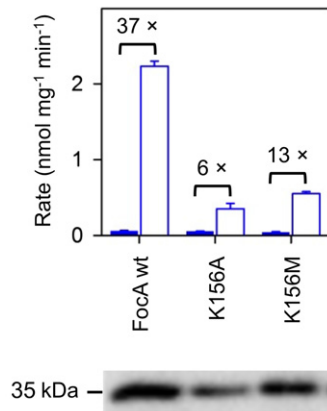


Figure EV1. Formate transport of FocA mutants K156A and K156M at pH 6.8 (filled bars) and pH 3.8 (open bars) in yeast.

Expression of the mutants is shown by Western blot below. Error bars indicate SEM from 3 replicates.

Source data are available online for this figure.

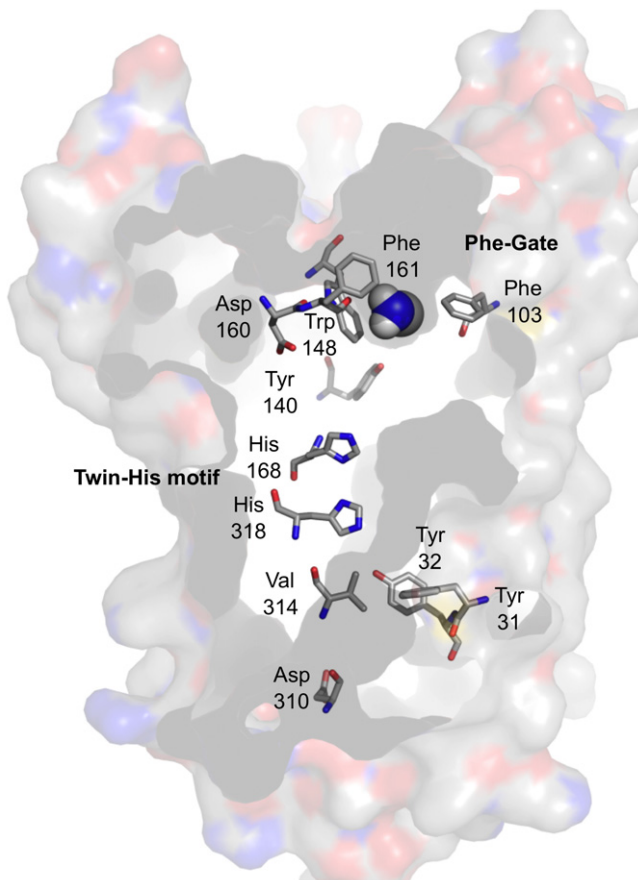


Figure EV2. Key residues of the transport path in the ammonium transporter, AmtB (PDB# 1U7G).

Highlighted are the two central histidines and the double phenylalanine gate. Asp160 is indirectly responsible for a negative electrostatic field in the periplasmic vestibule.