

Description of Additional Supplementary Files

File name: Supplementary Movie 1

Description: A molecular trajectory showing inward permeation of a potassium ion at negative voltage through the laser-flash-illuminated *HcKCR1_C110A* structure in a computational electrophysiology study

File name: Supplementary Movie 2

Description: A molecular trajectory showing outward permeation of a potassium ion at positive voltage through the laser-flash-illuminated *HcKCR1_C110A* structure in a computational electrophysiology study

File name: Supplementary Movie 3

Description: A representative trajectory showing the important binding sites during inward permeation of the potassium ion