

Supporting Information

# Molecular Dynamics Simulations of KirBac1.1 Mutants Reveal Global Gating Changes of Kir Channels

*Tobias Linder<sup>‡1</sup>, Shizhen Wang<sup>2</sup>, Eva-Maria Zangerl-Plessl<sup>1</sup>, Colin G. Nichols<sup>2</sup>, Anna Stary-Weinzinger<sup>‡\*1</sup>*

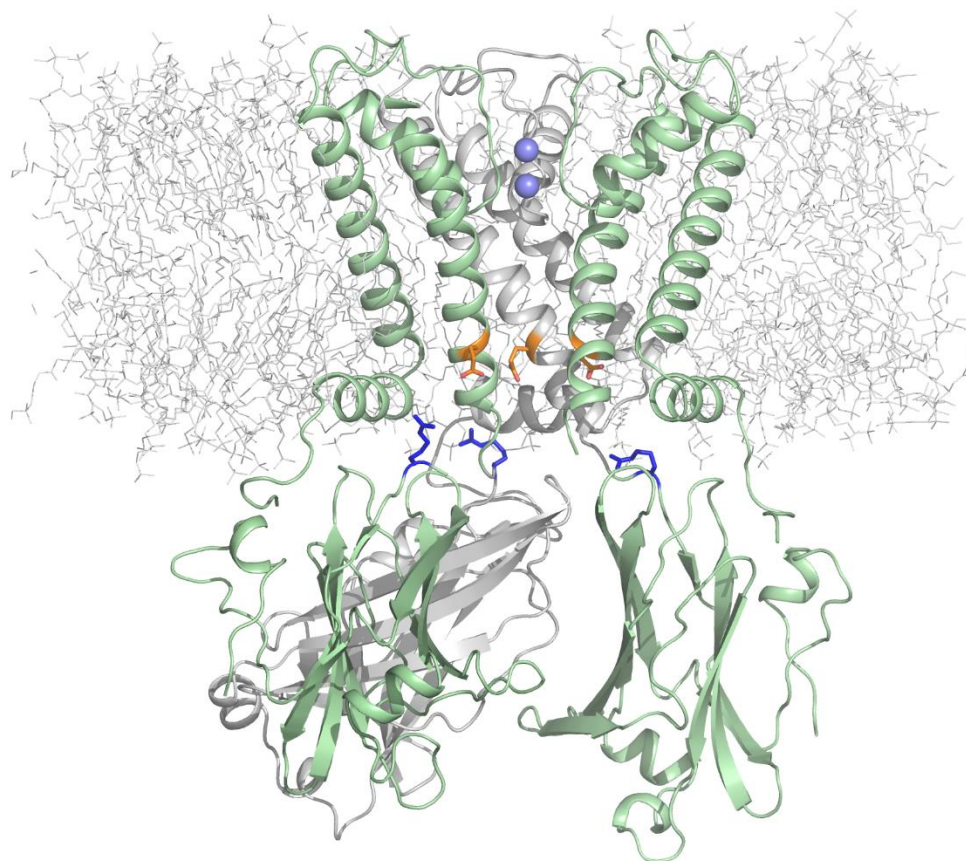
<sup>1</sup>Department of Pharmacology and Toxicology, University of Vienna, Vienna, Austria.

<sup>2</sup>Center for Investigation of Membrane Excitability Diseases, Department of Cell Biology and Physiology, Washington University School of Medicine, St. Louis MO 63110, USA

\*To whom correspondence should be addressed. E-mail: [anna.stary@univie.ac.at](mailto:anna.stary@univie.ac.at)

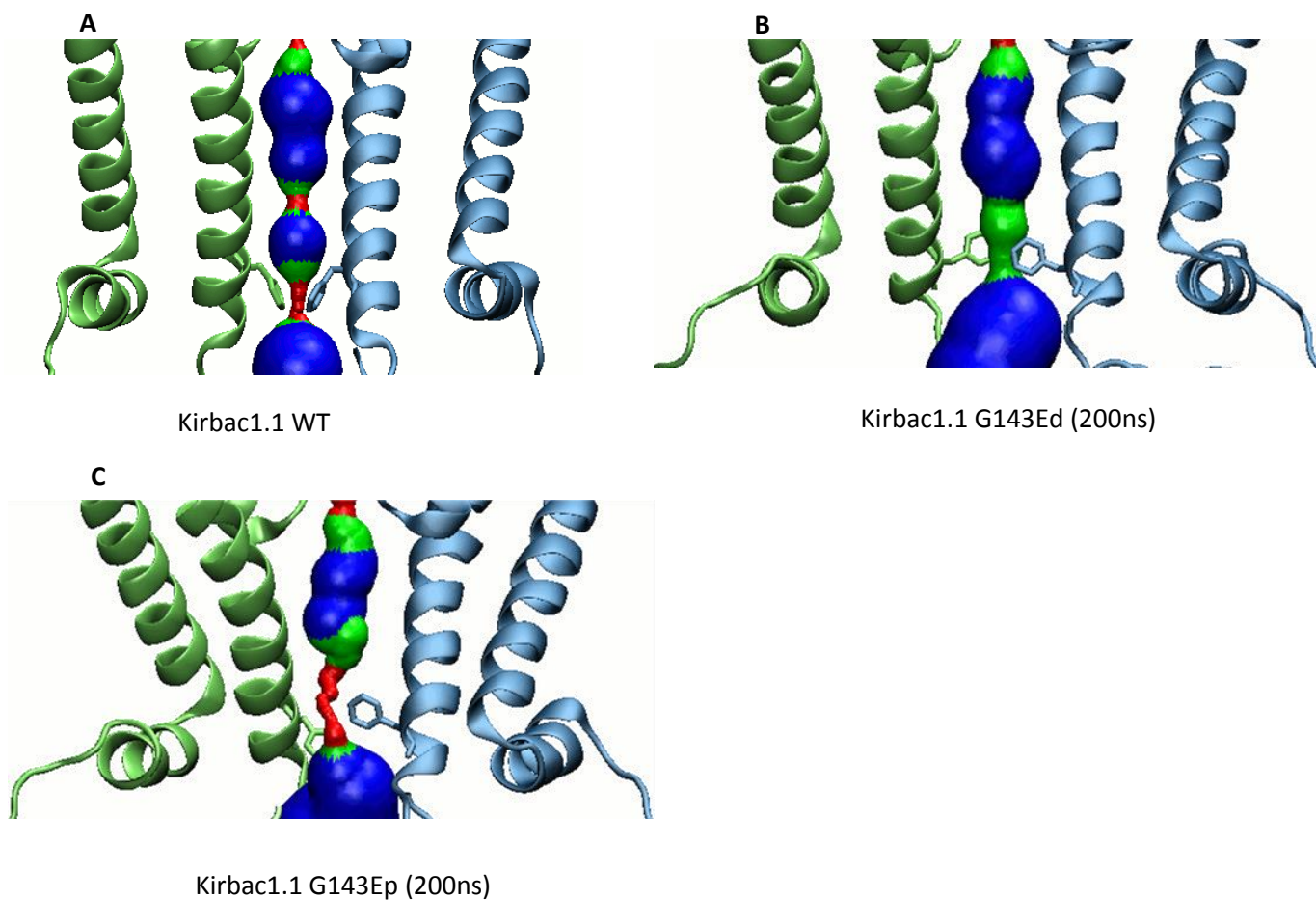
## Figure S1

Overview of the KirBac1.1 channel (3 subunits are shown) embedded in a POPC lipid bilayer (grey lines). The mutated G143E residues are shown in orange, the arginine 153 positions are shown in blue. 2 K<sup>+</sup> ions in the filter are shown as pale blue spheres.



**Figure S2**

Hole analysis of Kirbac1.1 WT and mutant channels revealing conformational changes at the HBC gate.



## References

O. S. Smart, J. G. Neduvellil, X. Wang , B. A. Wallace, M. S. Sansom, HOLE: A program for the analysis of the pore dimensions of ion channel structural models. *J. Mol. Graph.* 14, 354–360, 376 (1996).