Supplementary Figure 1

Figure S1. Fragments of the multiple sequence alignment of Slc4a8 from *Mus musculus* (mSlc4a8), *Rattus norvegicus* (rSlc4a8) and Slc4a10 from *Mus musculus* (mSlc4a10). Sequences were retrieved from the UniProtKB database; accession codes are Q8JZR6 for mSlc4a8, F1LUB7 for r Slc4a8 and Q5DTL9 for mSlc4a10. Residues from the S1 site are highlighted in bold and those coordinating Na^+ (D800, T804, and T847) in rat Slc4a8 structure (PDB: 7rtm) are underlined. We defined the S1 site by residues within 8.0 Å from K^+ and CO_3^{2-} ions in the rSlc4a8 structure.

Supplementary Figure 2

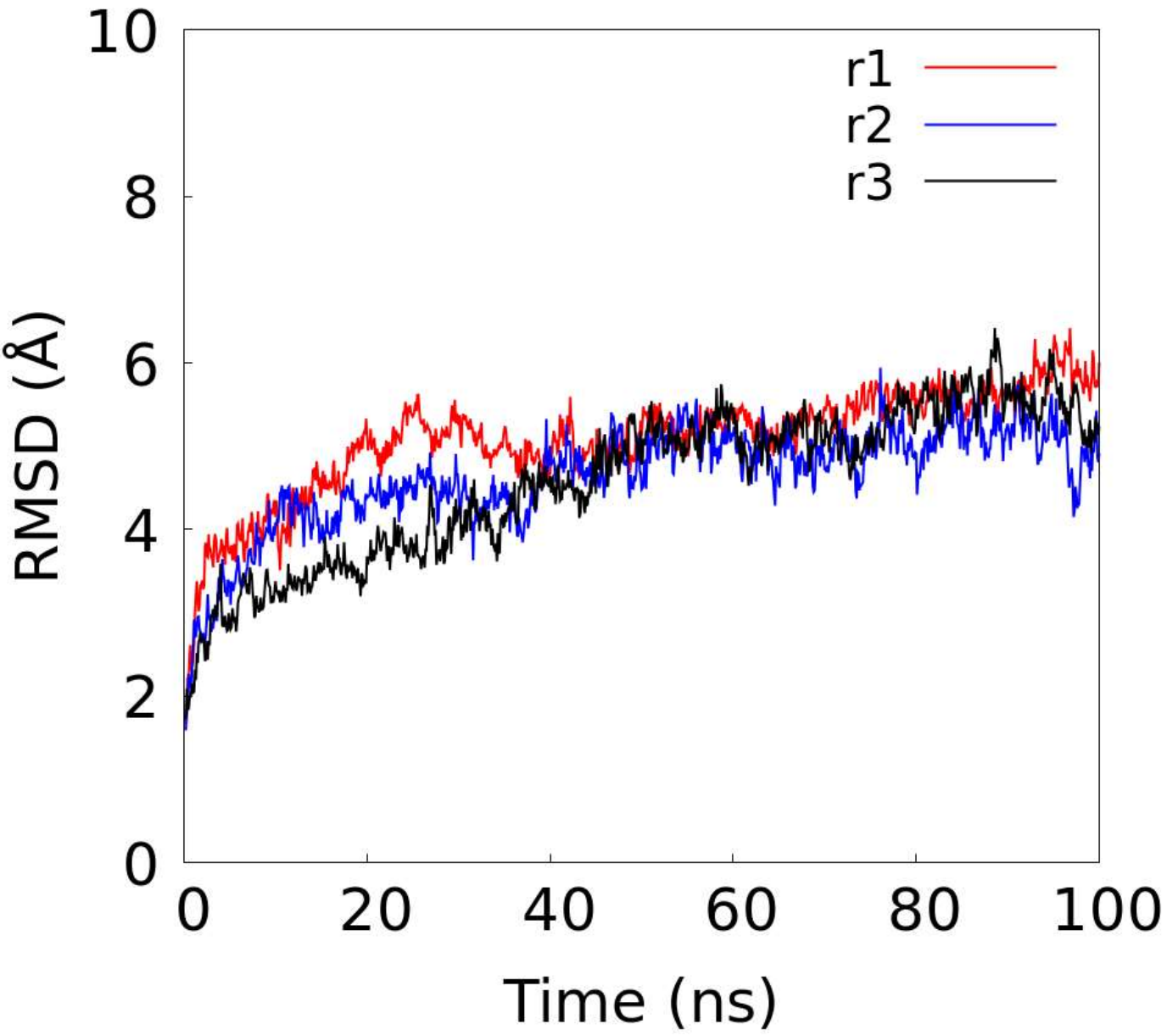

Figure S2. Root mean square deviation (RMSD) of backbone atoms during 100 ns for the three MD simulations (referred as r1, r2, and r3). RMSD was computed with reference to the first frame of each MD.