



**S6 Fig. Plot of RMSD from MD simulations.** RMSD calculated over the last 50 ns of each simulation is plotted for the backbone atoms of **(A)** RsBcsA and **(C)** AtumCrdS, and non-hydrogen atoms of **(B)** (1,4)- $\beta$ -glucan and **(D)** (1,3)- $\beta$ -glucan from the RsBcsA simulations with (1,4)- $\beta$ -glucan bound and AtumCrdS simulations with (1,3)- $\beta$ -glucan bound, respectively. Two plots for each conformation are shown as replicate (rep) simulations were performed for each conformation. Horizontality of plots in **(A)** and **(C)** indicates that protein backbone had equilibrated in initial 10ns equilibration phase and that there are no significant artefacts from docking the (1,3)- $\beta$ -glucan into the AtumCrdS TM channel.