

Supplementary information, Figure S7

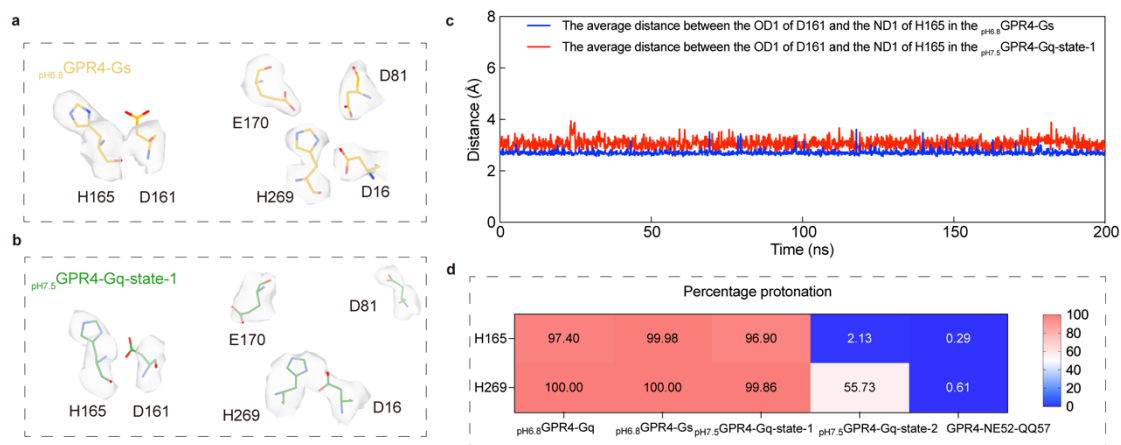


Fig. S7 Cryo-EM density and protonation ratios of residues in GPR4 contributed to proton sensing. a-b, Cryo-EM density of H165^{ECL2} and H269^{7.36} and surrounding residues in the structures of pH_{6.8}GPR4-G_s (a) and pH_{7.5}GPR4-G_q-state-1 (b). **c,** The average distances between OD1 of D161 and ND1 of H165 in pH_{6.8}GPR4-G_s (blue) and pH_{7.5}GPR4-G_q-state-1 (red) structures during triplicate 200 ns MD simulations. **d,** Protonation ratios of H165 and H269 in different GPR4 structures.