

## Figure S1. Conformations of various antimicrobial peptides with their hydrophobic quadrupole moments.

The lowest energy conformations in the last 2ns of 4 ns implicit simulations on 30% anionic membrane are shown with their corresponding  $\langle Q \rangle_{res}$ . The grey areas indicate the hydrophobic core of the membrane. The dotted lines indicate the location of the phosphate groups. The colors on the peptides indicate the residue type: Red: acidic; Blue: basic; white: polar; green: uncharged polar.