

**Supplemental Figure 3.** (A) Two-dimensional dynamical cross-correlation map (DCCM) of the residues motions across the protein domains and (B) three-dimensional dynamical DCCM of the Switch I (left panels) and Switch II (right panels) motions for the GDP-bound K-Ras4B at the lipid bilayer. (C) Two-dimensional DCCM of the residues motions across the protein domains and (D) three-dimensional dynamical DCCM of the Switch I (right panels) motions for the GTP-bound K-Ras4B at the lipid bilayer. (C) Two-dimensional DCCM of the residues motions across the protein domains and (D) three-dimensional dynamical DCCM of the Switch I (left panels) and Switch II (right panels) motions for the GTP-bound K-Ras4B at the lipid bilayer. Positively correlated residues with correlation coefficient C(i,j) = 1 (red), anti-correlated (negatively correlated) residues with correlation coefficient, C(i,j) = -1 (dark purple), and un-correlated residues with correlation coefficient, C(i,j) = 0 (dark green) are shown.