



**Supplementary Figure 2.** Comparison of RABEX-5 alone and from the complex with RAB21 following superposition of C $\alpha$  atoms. The largest structural changes in the Vps9 domain occur in the flexible  $\alpha$ V3/ $\alpha$ V4 and  $\alpha$ V5/ $\alpha$ V6 loops. Small differences in the helical bundle are due to differences in crystal packing.