



Jenkinson et al - Supplementary Figure 1: Electron microscopy data

(A) Electron micrographs of uranyl-stained WT and mutant MCM samples. The WT protein forms mostly double ring side and top views, the RRAA mutant shows individual rings and rod-like aggregates, whereas the R137A shows double-ring configurations. Scale bar indicates 50 nm.

(B) Eigenimages from MSA symmetry analysis of the WT and RRAA mutant, showing a seven-fold symmetry component.

(C) Overview of the 3D reconstruction procedure for both the R137A and the RRAA mutant. Top row: Class averages (characteristic views) obtained by multi-reference alignment and classification. Bottom row: Re-projections of the 3D structure in the Euler-angle directions (β , γ) assigned to the corresponding class averages.