## SUPPLEMENTARY INFORMATION

**Supplementary Fig. 1. (a)** SDS-PAGE analysis of purified RSC complex. (b) Raw image of RSC particles prepared in negative stain.

Supplementary Fig. 2. Class averages of RSC including only full particles with upper and lower lobes (class averages that we classified as open complexes are marked with a white dot). #

**Supplementary Fig. 3.** Class averages of RSC particles in the presence of unmodified H3-tail peptide. The averages represent only one of the three experiments. <sup>#</sup>\*

**Supplementary Fig. 4.** Class averages of RSC particles in the presence of H3-tail peptide acetylated at K9. The averages represent only one of the three experiments. #\*

**Supplementary Fig. 5.** Class averages of RSC particles in the presence of H3-tail peptide acetylated at K14. The averages represent only one of the three experiments. #\*

**Supplementary Fig. 6.** Class averages of RSC particles in the presence of H3-tail peptide methylated at K4. The averages represent only one of the three experiments. #\*

**Supplementary Fig. 7.** Class averages of RSC particles in the presence of AMP-PNP. The averages represent only one of the three experiments.<sup>#</sup>\*

Supplementary Fig. 8. Class averages of RSC particles in the presence of AMP-PNP and H3-tail peptide acetylated at K14. The averages represent only one of the three experiments.  $^{#*}$ 

<sup>#</sup> The averages represent only one of the three experiments.

\* The number of particles categorized in each class is given at the lower right of each average. The class averages that we classified as open complexes are marked with a white dot, while the unmarked ones were classified as closed complexes. Class averages without particle number indication were excluded from our analysis because of insufficient level of detail to categorize them as closed or open.















