



Supplementary information, Figure S3. Interaction between the Ski7^{NTD} and the Exo10

(A) Difference density of the RNA-free Exo10-Ski7 3D EM reconstruction (in transparent mesh) subtracting the apo-Exo10 atomic model is shown in solid iso-surface at a threshold of 10-sigma. (B) Difference map of the endogenous RNA-bound Exo10-Ski7 3D EM reconstruction (in transparent mesh) subtracting the Exo10 atomic model extracted from model 4IFD (PDB code) is shown in solid iso-surface at a threshold of 10-sigma. In (A) and (B), densities corresponding to Ski7 are colored in purple and those corresponding to RNAs are colored in green. (C) Rrp6-Rrp47 binding assay by the Exo10-Ski7 and the Exo10. The input and output indicate the prepared components for binding assays and the products collected from binding reactions, respectively. The S and P lanes represent the supernatant solution and pellet beads, respectively. In the Rrp6-Rrp47+Exo10-Ski7 beads sample, calmodulin beads coated with the CBP-tagged Exo10-Ski7 (input-ES) was used to interact with the Rrp6-Rrp47 complex (input-R6). In the Rrp6-Rrp47+Exo10 beads sample, calmodulin beads coated with the CBP-tagged Exo10 (input-E) was used to interact with the Rrp6-Rrp47 complex (input-R6). In the Rrp6-Rrp47+Empty beads sample, empty calmodulin beads (input-B) was used to interact with the Rrp6-Rrp47 complex (input-R6). The bands of interest are marked with protein names on the right of the SDS-PAGE. Due to the small size of the Rrp47 protein, it is very close to the bottom of 10% SDS-PAGE therefore not labeled. (D) The atomic model of the RNA-free Exo10-Ski7^{NTD} shows the Ski7^{NTD} (aa140-230) in red

and the Exo10 in cyan. (E) The atomic model of the RNA-bound Exo10-Ski7^{NTD} shows the Ski7^{NTD} (aa140-230) in red and the Exo10 in cyan. (F) The atomic model of the RNA-bound Exo10-Rrp6^{CTD} extracted from model 4IFD (PDB code) shows the Rrp6^{CTD}(530-620) in red and the Exo10 in cyan. The K180 residue of Ski7 detected by cross-linking MS experiments is labeled as green stick model in (D) and (E).