

Description of Additional Supplementary Files

Title: Supplementary Data 1.

Description: Lists of strains, plasmids, and oligonucleotides used in this study. The measured melting temperature of DNA scaffolds are indicated.

Title: Supplementary Movie 1.

Description: Composite cryo-EM map and complete model of the BUS complex. DnaA protomers are individually coloured and labelled. The ATP molecules at the interface of two adjacent protomers are shown as spheres.

Title: Supplementary Movie 2.

Description: Model of the DnaA₁ and DnaA₂ engaging with dsDNA (Box#6 and Box#7) and DnaA₃ engaging with posterior side of the dsDNA as support to stabilize the Domain-IV lattice.

Title: Supplementary Movie 3.

Description: Model of DnaA-trio#2 bound to the dinucleotide binding pocket formed by DnaA₂ and DnaA₃ and showing the hydrogen bond interaction it makes with the protein side chains. The bases are labelled.