

Figures and Preliminary results

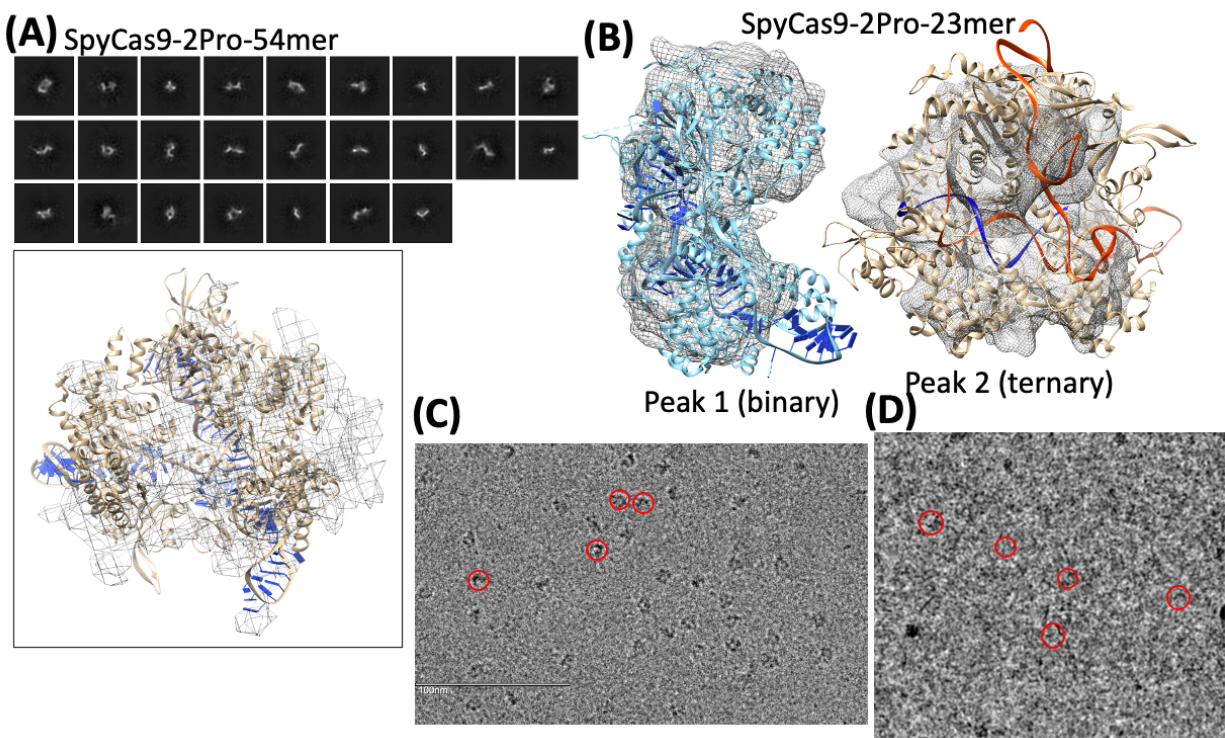


Figure 1. Preliminary results. (A) Representative 2D classes for the SpyCas9-2Pro^{1,2}-gRNA-54-mer DNA data collected during the NCCAT-TP1 visit and the initial map volume fit with a model (PDB ID: 4OO8)³. (B) Data collected at SLAC. The *ab-initio* volume map generated for the binary complex (SpyCas9-2Pro-gRNA, peak 1 of SEC column) was fit with PDB ID: 4ZT0,⁴ and it exhibits the overall bilobed feature. The volume for the ternary complex (peak 2 of SEC column) was refined by homogeneous refinement using 73,028 particles that yielded a low-resolution map (8.33 Å), which has similar overall features as the SpyCas9-sgRNA-DNA complex (PDB ID: 4OO8).³ (C) Micrograph showing distribution of FnoCas12a-KD2P⁵-gRNA-DNA complex (peak 2 of SEC column) on GO-coated quantifoil grid. The particles possess the crab-shaped morphology similar to available structures (e.g., PDB IDs: 6I1K,⁶ 6GTG⁷). (D) Micrographs showing the distribution of Cas1-Cas2-DNA complex purified using our established methods⁸ on a quantifoil grid. The particles possess elongated morphology similar to an available structure from an ortholog (e.g., PDB ID: 5XVN)⁹.

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