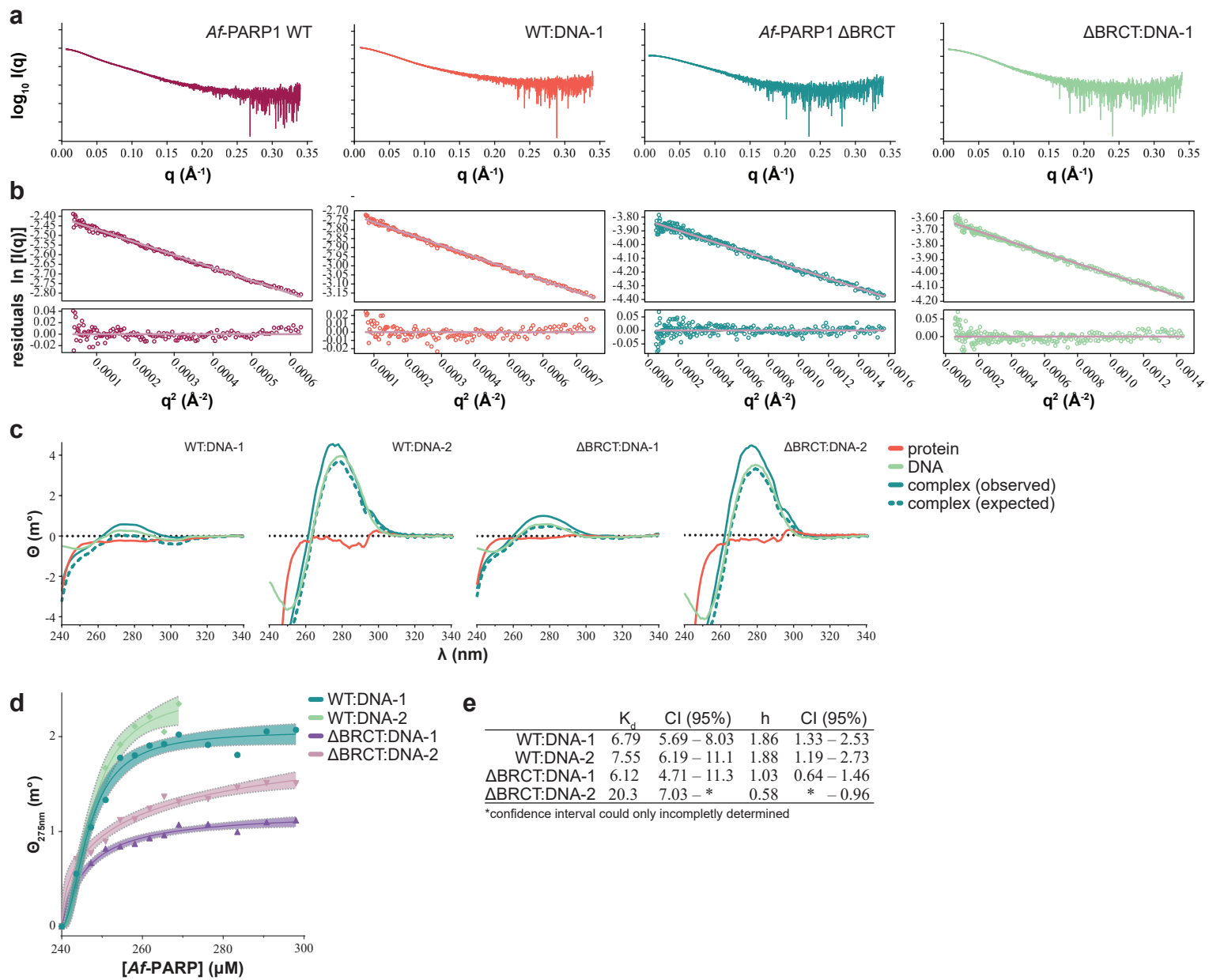




Extended Data Figure 4. SAXS quality parameters and CD near-UV spectra for Af-PARP1 and its DNA complexes.

(a) Log₁₀ intensity plots for Af-PARP1 WT and ΔBRCT in their apo and DNA-1 bound forms.

(b) Guinier fits and normalised fit residuals for Af-PARP1 WT and ΔBRCT in their apo and DNA-1 bound forms.

(c) SRCD near-UV spectra of Af-PARP1 WT and ΔBRCT in presence and absence of DNA-1 or -2. Expected complex spectra (summation of protein and DNA apo spectra) are shown as dotted line. Indicative of B-DNA is a maximum near 280 nm, in contrast to A-DNA (near 265 nm) or Z-DNA (near 260 nm)⁸⁵.

(d) CD titration of the Af-PARP1 (WT or ΔBRCT) into the 5'-phosphorylated nicked (DNA-1) or gap DNA (DNA-2). For each complex, the K_d values and Hill coefficients were obtained by fitting the CD data at 275 nm versus the protein concentration using the Hill equation as implemented in Prism v10.6 (GraphPad). Best fits are given as solid lines and 95% confidence intervals (shaded regions).

(e) Binding parameters determined via Hill equation from data shown in (d). Note, the confidence interval for the ΔBRCT:DNA-2 interaction could only be incompletely calculated, hence only lower bound for K_d and upper bound for h are given.