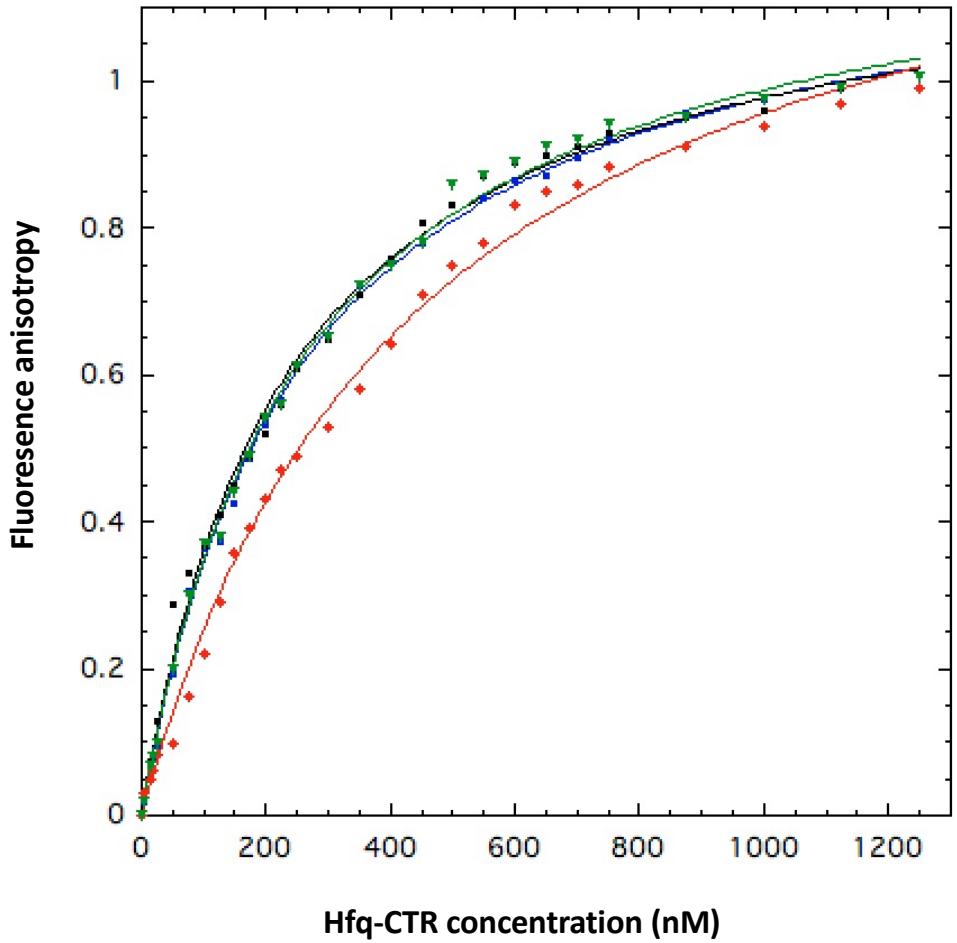
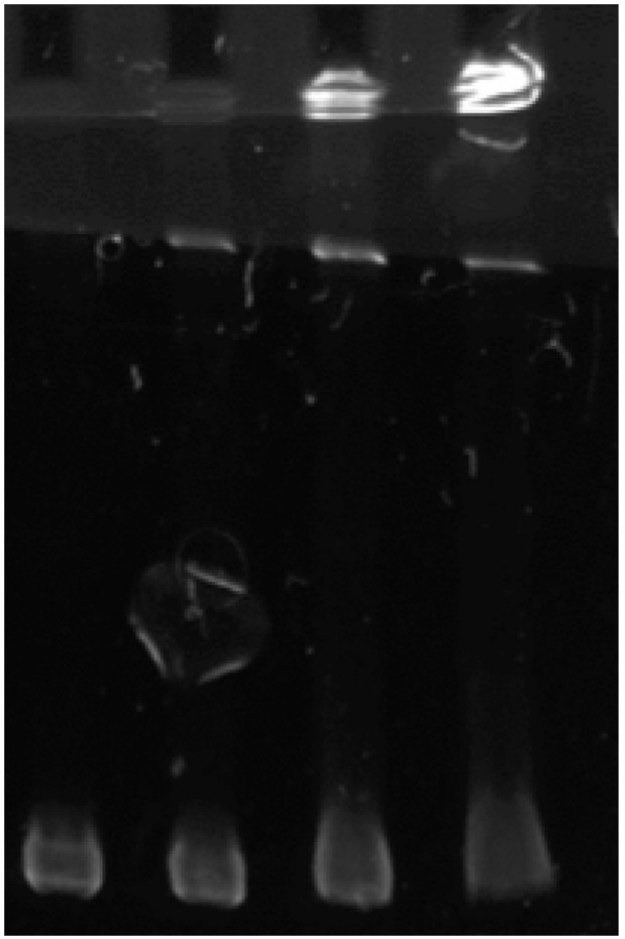
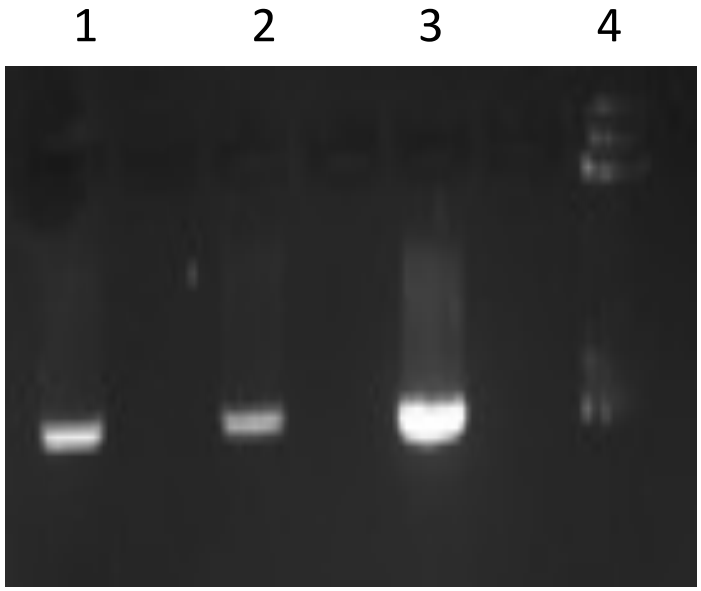


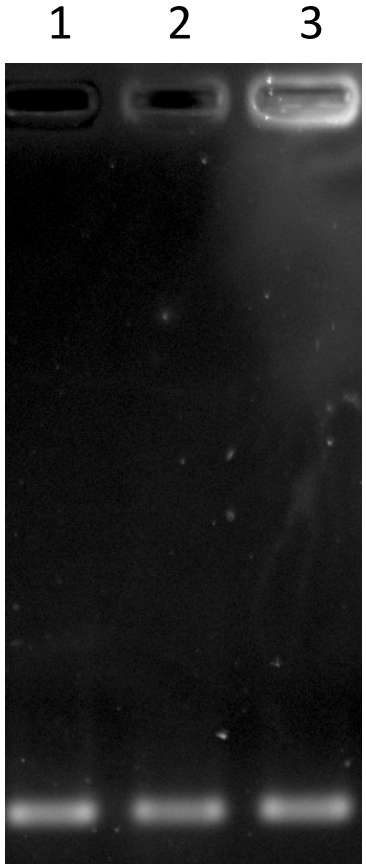
Sup. figure S1: K_D measurements of WT Hfq-CTR:dsDNA complexes using fluorescence anisotropy in the presence of 100 mM NaCl, 300 mM NaCl and 1 mM $MgCl_2$. Hfq-CTR without salts added (black) has an equilibrium dissociation constant K_D = 260 ± 10 nM, while in the presence of 100 mM NaCl K_D = 240 ± 11 nM (blue). Increasing salt concentration to 300 mM increases K_D to 455 ± 20 nM (red) and thus reduce the stability of the complex. $MgCl_2$ at 1 mM does not change significantly the affinity (K_D = 259 ± 9 nM, green)



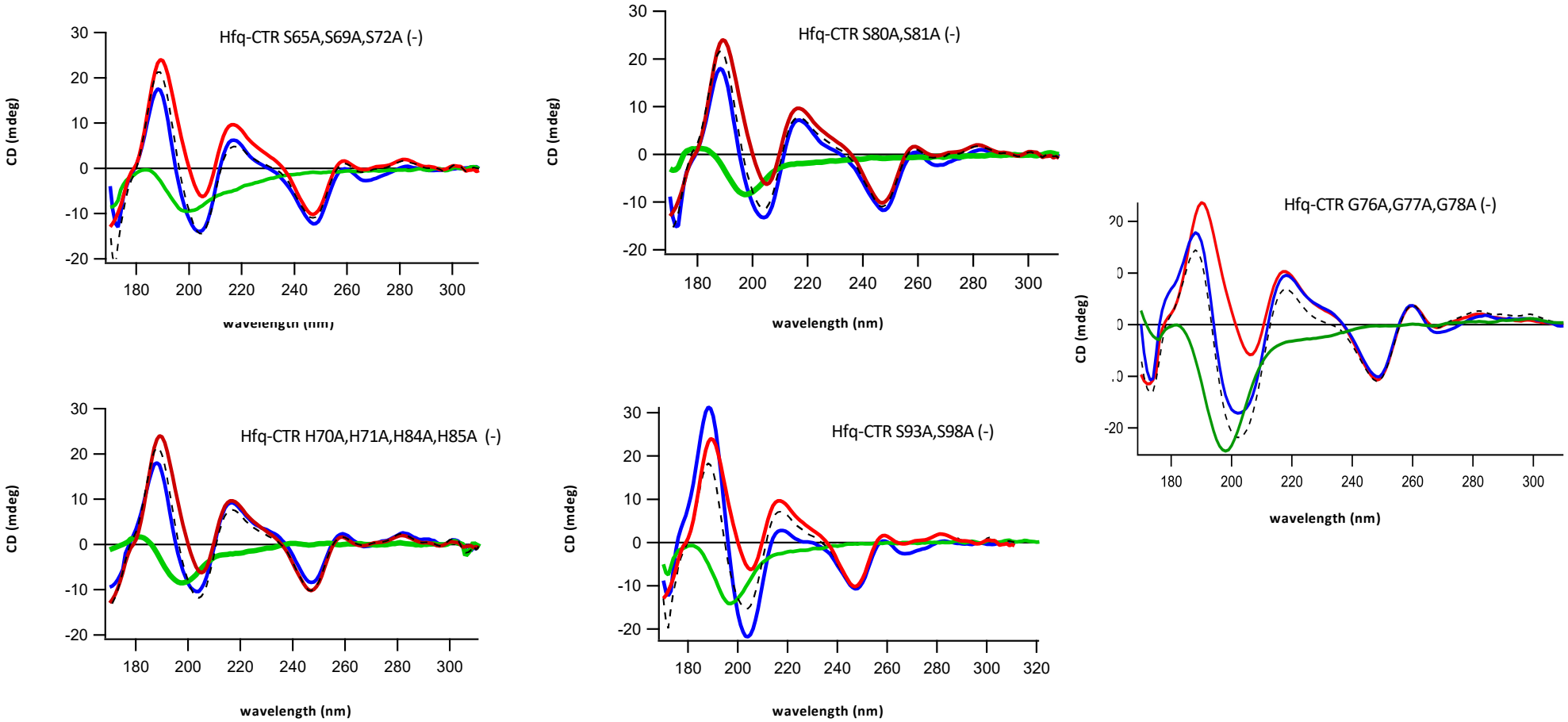
Sup. figure S2: EMSA analysis of $(dA:dT)_{59}$ titration by Hfq-CTR. Increasing CTR concentration to titrate DNA results in very high molecular weight complexes (possibly $(CTR_n:AT_{59})_n$) that stay in the well of the gel and cannot be quantified accurately.



Sup. figure S3: EMSA analysis of additional Hfq-CTR mutants in the presence of DNA. 1: DNA alone; 2: DNA + Hfq-CTR H70A,H71A; 3: DNA + Hfq-CTR H84A,H85A; 4: DNA + Hfq-CTR D97A,E99A,E100A,E102A. The increase in the band intensity in 3 may be due to the binding of few Hfq-CTR H84A,H85A monomers to DNA not detected by band-shift (Wang H. & Myong, S. Protein induced fluorescence enhancement PIFE for probing protein-nucleic acid interactions. *Chem Soc Rev* **2014**, *43*, 1221-1229)



Sup. figure S4: EMSA analysis of pre-polymerized Hfq-CTR in the presence of DNA. 1: DNA alone; 2: DNA + pre-polymerized Hfq-CTR 100 nM; 3: DNA + pre-polymerized Hfq-CTR 1 µM. Due to the aggregation of the protein, it was not possible in this case to measure K_d using fluorescence anisotropy.



Sup. figure S5: SRCD spectra of additional CTR/DNA complexes. Spectra of the individual components are measured with equivalent DNA and CTR concentrations. Complex: blue, DNA: red and CTR: green. The dotted spectrum represents the relevant combination of the spectra pertaining to the individual components. (-) indicate the behavior observed, in these cases no significant effect. Hfq-CTR S80A,S81A mutant spectra was reprinted with permission from Biomacromolecules 2020, 21, 3668-3677. Copyright 2020 American Chemical Society.