

Table S10. Detailed list of **rmsd** values calculated from fitting each DNA structure in the complexes from group-SingleProtein:DNA to a corresponding canonical A-DNA and B-DNA.

	<u>A-DNA</u>	<u>B-DNA</u>
1A0A	5.465	2.881
1A3Q	5.366	1.5
1AM9	5.525	2.678
1B01	-	-
1B3T	5.802	3.561
1BDT	8.413	4.159
1BG1	5.306	2.272
1BL0	10.161	5.993
1BPY	3.841	2.156
1C8C	2.5	3.239
1CEZ	-	-
1CKT	4.351	5.523
1CL8	5.596	2.433
1CW0	7.078	4.169
1D02	6.082	1.876
1DC1	9.122	4.973
1DDN	9.83	5.961
1DEW	6.42	3.671
1DFM	9.794	4.652
1DH3	5.876	2.179
1DIZ	3.563	7.209
1DMU	-	-
1DP7	4.384	2.094
1E3O	4.654	1.637
1ECR	7.015	3.695
1EFA	5.836	4.418
1EGW	-	-
1ESG	3.652	1.194
1EWN	4.652	4.759
1EWQ	9.208	6.517
1EYG	-	-
1F44	7.383	3.176
1F4K	7.015	1.813
1FOK	8.853	3.434
1FZP	4.941	2.877
1G38	6.497	3.933
1G9Z	-	-
1GDT	-	-
1HLV	7.64	4.031
1HWT	8	2.221
1I3J	7.548	2.791
1I6J	2.342	0.861
1I7D	2.54	3.581
1IAW	6.654	4.571
1IC8	7.096	2.085
1IGN	8.579	3.491
1J1V	5.147	2.319
1JB7	4.911	5.212
1JE8	5.94	4.981
1JJ4	6.81	3.2
1JMC	6.433	6.439
1JT0	8.365	3.485
1JX4	4.845	2.45
1K3X	-	-
1K4T	3.359	1.132

1KC6	5.405	4.584
1KDH	1.997	2.421
1KU7	5.923	2.134
1L3L	5.59	3.259
1L3S	2.497	1.696
1LLM	6.34	2.48
1LMB	9.047	3.345
1LQ1	8.164	3.627
1LRR	6.538	0.986
1LWY	4.937	5.404
1M5R	8.089	4.652
1MHD	6.036	1.616
1MJO	7.798	3.099
1MNN	7.699	2.266
1MUS	6.482	5.284
1MW8	2.983	3.418
1MWI	4.779	2.959
1ODH	4.058	3.095
1OE4	5.972	3.046
1ORN	4.11	4.701
1OUP	2.554	2.272
1P4E	3.432	2.429
1P71	7.687	7.944
1P7H	4.598	1.304
1PV4	-	-
1QNA	3.652	7.343
1QPZ	5.78	4.325
1QRV	2.803	6.346
1QUM	1.786	1.282
1REP	6.612	3.136
1SKN	9.587	4.847
1TC3	6.24	6.353
1TRO	7.618	2.656
1TUP	8.177	3.05
1UBD	6.543	2.103
1VAS	7.336	5.384
1ZME	7.214	4.083
2BOP	5.853	3.343
2CGP	3.391	1.94
2DRP	5.422	2.702
2HDD	8.167	2.817
2IRF	5.859	2.274
2PJR	3.109	3.34
3HTS	4.247	1.023
3PVI	7.858	4.038
6CRO	-	-
6MHT	6.449	2.995