

Supplementary data for: Susan S. Dignam, Roy F. Collaco, Jacob Bieszczad, Patrick Needham, James P. Trempe, John David Dignam **Coupled ATP and DNA binding of Adeno-associated Virus Rep40 Helicase**

Oligonucleotides used for Surface Plasmon Resonance

| <u>Length</u> | <u>Sequence</u> |
|----------------------|---|
| 16 | 5'-Biotin-GAGCGAGCGAGCGCGC-3' 5'-GCGCGCTCGCTCGCTC-3' |
| 20 | 5'-Biotin-GTGAGCGAGCGAGCGCGCAG-3' |
| 26 | 5'-Biotin-TCAGTGAGCGAGCGAGCGCGCAGAGA-3' 5'-TCTCTGCGCGCTCGCTCGCTCACTGA-3' |
| 32 | 5'-Biotin-GATCTCAGTGAGCGAGCGAGCGCGCACAGATC-3' 5'-GATCTGTGCGCGCTCGCTCGCTCACTGAGATC-3' |
| 35 | 5'-Biotin-GGCCTCAGTGAGCGAGCGAGCGCGCAGAGAGGGGAG-3' 5'-CTCCCTCTCTGCGCGCTCGCTCGCTCACTGAGGCC-3' |
| 38 | 5'-Biotin-GGCCTCAGTGAGCGAGCGAGCGCGCAGAGAGGGGAGTGG-3' 5'-CCACTCCCTCTCTGCGCGCTCGCTCGCTCACTGAGGCC-3' |
| 41 | 5'-Biotin-TTGGCCACTCCCTCTCTGCGCGCTCGCTCGCTCACTGAGGC-3' 5'-GCCTCAGTGAGCGAGCGAGCGCGCAGAGAGGGGAGTGGCCAA-3' |
| 46 | 5'-Biotin-GGCCTCAGTGAGCGAGCGAGCGCGCAGAGAGGGGAGTGGCCAACTCC-3' 5'-GGAGTTGGCCACTCCCTCTCTGCGCGCTCGCTCGCTCACTGAGGCC-3' |
| 61 | 5'-Biotin-AGGAACCCCTAGTGATGGAGTTGGCCACTCCCTCTCTGCGCGCTCGCTCGCTCACTGAGGC-3' 5'-GCCTCAGTGAGCGAGCGAGCGCGCAGAGAGGGGAGTGGCCAACTCCATCACTAGGGGTTTCCT-3' |
| 16 | 5'-Biotin-dT ₁₆ |
| 20 | 5'-Biotin-dT ₂₀ |
| 26 | 5'-Biotin-dT ₂₆ |
| 32 | 5'-Biotin-dT ₃₂ |
| 38 | 5'-Biotin-dT ₃₈ |
| 41 | 5'-Biotin-dT ₄₁ |

Oligonucleotides used for anisotropy experiments

| <u>Length</u> | <u>Sequence</u> |
|----------------------|--|
| 8 | 5'-Fam-GAGCGAGC-3' 5'-GCTCGCTC-3' |
| 10 | 5'-Fam-CGAGCGAGCG-3' 5'-CGCTCGCTCG-3' |
| 13 | 5'-Fam-GAGCGAGCGAGCG-3' 5'-CGCTCGCTCGCTC-3' |
| 16 | 5'-Fam-GAGCGAGCGAGCGCGC-3' 5'-GCGCGCTCGCTCGCTC-3' |
| 20 | 5'-Fam-GTGAGCGAGCGAGCGCGCAG-3' 5'-CTGCGCGCTCGCTCGCTCAC-3' |
| 32 | 5'-Fam-GATCTCAGTGAGCGAGCGAGCGCGCACAGATC-3' 5'-GATCTGTGCGCGCTCGCTCGCTCACTGAGATC-3' |
| 46 | 5'-Fam-GGCCTCAGTGAGCGAGCGAGCGCGCAGAGAGGGAGTGGCCA ACTCC-3' 5'-GGAGTTGGCCACTCCCTCTCTGCGCGCTCGCTCGCTCACTGAGGCC-3' |
| 61 | 5'-Fam-GCCTCAGTGAGCGAGCGAGCGCGCAGAGAGGGAGTGGCCA ACTCCATCACTAGGGGTTTCCT-3' 5'-AGGAACCCCTAGTGATGGAGTTGGCCACTCCCTCTCTGCGCGCTCGCTCGCTCACTGAGGC-3' |

Oligonucleotides for A-stem

| <u>Name</u> | <u>Length</u> | <u>Sequence</u> |
|--------------------|----------------------|------------------------------------|
| A-stem-1 | 26 | 5'-GATCTCAGTGAGCGAGCGAGCGCGCA-3' |
| A-stem-2 | 28 | 5'-GATCTGTGCGCGCTCGCTCGCTCACTGA-3' |

A-stem duplex is formed by annealing A-stem-1 and A-stem-2, resulting in 5'-overhangs at each end.