

Additional file 1: Details of the nucleotide sequence of PfuX7

Coding sequence:

ATGCATCACCATCACCATCACGGATCAATGATTTTAGATGTGGATTACATAACTGAA
GAAGGAAAACCTGTTATTAGGCTATTCAAAAAGAGAACGGAAAATTTAAGATAGAG
CATGATAGAACTTTTAGACCATACATTTACGCTCTTCTCAGGGATGATTCAAAGATT
GAAGAAGTTAAGAAAATAACGGGGGAAAGGCATGGAAAGATTGTGAGAATTGTTGAT
GTAGAGAAGGTTGAGAAAAAGTTTCTCGGCAAGCCTATTACCGTGTGGAACTTTAT
TTGGAACATCCCCAAGATGTTCCCACTATTAGAGAAAAAGTTAGAGAACATCCAGCA
GTTGTGGACATCTTCGAATACGATATTCCATTTGCAAAGAGATACCTCATCGACAAA
GGCCTAATACCAATGGAGGGGGAAGAAGAGCTAAAGATTCTTGCCTTCGATATAGAA
ACCCTCTATCACGAAGGAGAAGAGTTTGGAAAAGGCCCAATTATAATGATTAGTTAT
GCAGATGAAAATGAAGCAAAGGTGATTACTTGGAAAAACATAGATCTTCCATACGTT
GAGGTTGTATCAAGCGAGAGAGAGATGATAAAGAGATTTCTCAGGATTATCAGGGAG
AAGGATCCTGACATTATAGTTACTTATAATGGAGACTCATTGCACTTCCCATATTTA
GCGAAAAGGGCAGAAAACTTGGGATTAATTAACCATTGGAAGAGATGGAAGCGAG
CCCAAGATGCAGAGAATAGGCGATATGACGGCTGTAGAAGTCAAGGGAAGAATACAT
TTCGACTTGTATCATGTAATAACAAGGACAATAAATCTCCCAACATACACACTAGAG
GCTGTATATGAAGCAATTTTTGGAAAGCCAAAGGAGAAGGTATACGCCGACGAGATA
GCAAAAGCCTGGGAAAGTGGAGAGAACCTTGAGAGAGTTGCCAAATACTCGATGGAA
GATGCAAAGGCAACTTATGAACTCGGGAAAGAATTCTTCCAATGGAAATTCAGCTT
TCAAGATTAGTTGGACAACCTTTATGGGATGTTTCAAGGTCAAGCACAGGGAACCTT
GTAGAGTGGTTCTTACTTAGGAAAGCCTACGAAAGAAACGAAGTAGCTCCAACAAG
CCAAGTGAAGAGGAGTATCAAAGAAGGCTCAGGGAGAGCTACACAGGTGGATTTCGTT
AAAGAGCCAGAAAAGGGGTTGTGGGAAAACATAGTATACCTAGATTTTAGAGCCCTA
TATCCCTCGATTATAATTACCCACAATGTTTCTCCCGATACTCTAAATCTTGAGGGA
TGCAAGAACTATGATATCGCTCCTCAAGTAGGCCACAAGTTCTGCAAGGACATCCCT
GGTTTTATACCAAGTCTCTTGGGACATTTGTTAGAGGAAAGACAAAAGATTAAGACA
AAAATGAAGGAAACTCAAGATCCTATAGAAAAAATACTCCTTGACTATAGACAAAAA
GCGATAAACTCTTAGCAAATTCCTTCTACGGATATTATGGCTATGCAAAAGCAAGA
TGGTACTGTAAGGAGTGTGCTGAGAGCGTTACTGCCTGGGGAAGAAAGTACATCGAG
TTAGTATGGAAGGAGCTCGAAGAAAAGTTTGGATTTAAAGTCCTCTACATTGACACT
GATGGTCTCTATGCAACTATCCCAGGAGGAGAAAGTGAGGAAATAAAGAAAAAGGCT
CTAGAATTTGTAAATACATAAATTCAAAGCTCCCTGGACTGCTAGAGCTTGAATAT
GAAGGGTTTTATAAGAGGGGATTCTTCGTTACGAAGAAGAGGTATGCAGTAATAGAT
GAAGAAGGAAAAGTCATTACTCGTGGTTTAGAGATAGTTAGGAGAGATTGGAGTGAA
ATTGCAAAAGAACTCAAGCTAGAGTTTTTGGAGACAATACTAAAACACGGAGATGTT
GAAGAAGCTGTGAGAATAGTAAAAGAAGTAATACAAAAGCTTGCCAATTATGAAATT
CCACCAGAGAAGCTCGCAATATATGAGCAGATAACAAGACCATTACATGAGTATAAG
GCGATAGTCTCCTCACGTAGCTGTTGCAAGAACTAGCTGCTAAAGGAGTTAAAATA
AAGCCAGGAATGGTAATTGGATACATAGTACTTAGAGGCGATGGTCCAATTAGCAAT
AGGGCAATTCTAGCTGAGGAATACGATCCCAAAAAGCACAAAGTATGACGCAGAATAT
TACATTGAGAACCAGGTTCTTCCAGCGGTACTTAGGATATTGGAGGGATTGGGATAC
AGAAAGGAAGACCTCAGATACCAAAAAGACAAGACAAGTCGGCCTAACTTCCTGGCTT
AACATTA AAAAATCCGGTACCGGCGGTGGCGGTGCAACCGTAAAGTTCAAGTACAAA
GGCGAAGAAAAAGAGGTAGACATCTCCAAGATCAAGAAAGTATGGCGTGTGGGCAAG
ATGATCTCCTTCACCTACGACGAGGGCGGTGGCAAGACCGGCCGTGGTGCGGTAAGC
GAAAAGGACGCGCCGAAGGAGCTGCTGCAGATGCTGGAGAAGCAGAAAAAGTAG

Pfu-Sso7d fusion-part with dU-defined overlaps indicated in bold:

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--PfuR-----
...TCGGCCTAACTTCCTGGCTT

-----dU-overlap-----Sso7d-1F/R-----
AACATTAAAAAATCCGGTACCGGCGGTGGCGGTGCAACCGTAAAGTTCAAGTACAAA

-----dU-overlap-----
GGCGAAGAAAAAGAGGTAGACATCTCCAAGATCAAGAAAGTATGGCGTGTGGGCAAG

-----Sso7d-2F/R-----dU-overlap-----
ATGATCTCCTTCACCTACGACGAGGGCGGTGGCAAGACCGGCCGTGGTGCGGTAAGC

-----Sso7d-3F/R-----...
GAAAAGGACGCGCCGAAGGAGCTGCTGCAGATGCTGGAGAAGCAGAAAAAGTAG...
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N-terminal His-tag sequence highlighted in yellow

Pfu sequence not high-lighted

Pfu-Sso7d linker sequence highlighted in green

Sso7d sequence highlighted in blue