Paper-based molecular diagnostic for *Chlamydia trachomatis*

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† Electronic Supplementary Information (ESI)

HDA sequence alignment to CT

Quantified CT DNA was amplified using HDA with forward and reverse primers that had additional nucleotides encoding restriction enzymes, SpeI and AatII respectively (New England Biolabs Inc., Ipswich, MA), at their 5' ends. HDA products were purified and cloned into pGEM®-T Easy vector (Promega, Madison, WI) containing an ampicillin resistance cassette and transformed into One Shot Top 10F' Chemically Competent *E. coli* (Life Technologies, Grand Island, NY) as per the manufacturer's directions. Cells were grown overnight on LB plates with 10 μg/ml ampicillin, re-streaked onto new ampicillin LB plates and then selected colonies were inoculated into LB media with 100 μg/ml ampicillin overnight. Plasmids containing the cloned HDA products were purified from the overnight cell cultures using QIAgen mini-prep columns (Valencia, CA) and eluted into 50 μl of nuclease-free water. Plasmids were then sent to GeneWiz Inc. (South Plainfield, NJ) for sequencing. Sequence alignment to the CT cryptic plasmid pLGV440 (NCBI GeneBank reference GI 194680626) was confirmed using A Plasmid Editor developed by Dr. M. Wayne Davis at the University of Utah). Results of the sequence alignment are present below in Supplemental Fig. 1.

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CT cryptic plasmid pLGV440 from 2247 to 2349
Alignment to
Cloned CT HDA amplicon from 1 to 103

Matches(|):91
Mismatches(#):0
Gaps( ):12

2247  aaatcgcatgcaagatatcgagtatgcgttgttaggtaaagctctgatatttgaagactctactg
            |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
1     ACTAGTcatgcaagatatcgagtatgcgttgttaggtaaagctctgatatttgaagactctactg

2313  agtatattctgaggcagcttgctaattatgagtttaag 2349
      |||||||||||||||||||||||||||||||||
66    agtatattctgaggcagcttgctaattatgagGACGTC 103
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Supplemental Fig 1. A Plasmid Editor sequence alignment of CT cryptic plasmid pLGV440 (top) to cloned CT HDA amplicon (bottom) contained in pGEM T-Easy vector with restriction enzymes (capitalized)