

Table S2 Primers used for amplification and sequencing of the HeAstV1.

| Primer | Sequence 5'-3' | Position 5'-3' (nt) |
|----------|-------------------------|---------------------|
| HeA-1F | CGGAGCTAACCGCAGATGT | 3-21 |
| HeA-1R | TGTTGCCCAAATCCTCAGGG | 500-481 |
| HeA-2F-O | ACATCATACGTGCTTCCCGA | 287-306 |
| HeA-2R-O | GGCAATGCTCTTACCGACCT | 1000-981 |
| HeA-2F-I | AATTGGCTTCTTTAAGGACAGGT | 306-328 |
| HeA-2R-I | CAGCAGACAAATGCCGTCAC | 955-936 |
| HeA-3F | TGACAGTGGTTGTCGTATTGAGA | 853-875 |
| HeA-3R | CAAAGGCCAAAAGTGGCGTCC | 1391-1372 |
| HeA-4F-O | AGGCTTTGATCCGACCAGTG | 1156-1175 |
| HeA-4R-O | ATCATGATCGAGGACGTGGC | 1870-1851 |
| HeA-4F-I | TTGCGGTTGCCCTTCACTAT | 1197-1216 |
| HeA-4R-I | TGGTGATCAACTTTCCGCGA | 1847-1828 |
| HeA-5F-O | GTGTGCCTAGCGCCATTTTT | 1710-1729 |
| HeA-5R-O | AGCAAGTTCGTCTCGCTTCA | 2356-2337 |
| HeA-5F-I | GTCATACCGTGTGTCCCCTT | 1753-1772 |
| HeA-5R-I | CTTCCTTGGTGGCTTTGTCTG | 2333-2314 |
| HeA-6F-O | CCAAGAAGGGATACGCTGGG | 2013-2032 |
| HeA-6R-O | TCGTCACTGGCTACATCTTCG | 2730-2710 |
| HeA-6F-I | GGGACCTACTGTAACGCCAG | 2030-2049 |
| HeA-6R-I | ATCGTTTGTGACGAGGTGG | 2693-2674 |
| HeA-7F | ACTTCAGAGTCCGCAGACCA | 2580-2599 |
| HeA-7R | GAGTGCGTTGGCTTGTTGTA | 3055-3036 |
| HeA-8F-O | AACATGAGGCAGATAGGCGT | 2976-2995 |
| HeA-8R-O | TGCTGCCGGGGTTTTCTTTA | 3716-3697 |
| HeA-8F-I | GAGGCAGATAGGCGTCAAAT | 2981-3000 |
| HeA-8R-I | GCAGTTTTTATCACCCACGC | 3685-3666 |
| HeA-9F-O | GCATTGTGGCGAACCTACAC | 3529-3548 |

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| HeA-9R-O | AGACCTTGGTCTTCCAGCAG | 4268-4249 |
| HeA-9F-I | TTGTGGCGAACCTACACCAG | 3532-3551 |
| HeA-9R-I | TCCAGCAGATCCTTTTCGGT | 4256-4237 |
| HeA-10F | CTACCAGCTAGCCCTTGACAC | 4107-4127 |
| HeA-10R | ACCAATCGAGGAGGACTTCG | 4687-4668 |
| HeA-11F-O | GGCTACCCGAAAAAGCAGAA | 4210-4229 |
| HeA-11R-O | GTACGAATGTCTTCTCGGCG | 4948-4929 |
| HeA-11F-I | GGCTACCCGAAAAAGCAGAAG | 4210-4230 |
| HeA-11R-I | CCGGTCGTCACCGTAACATA | 4914-4895 |
| HeA-12F-O | GTTAACACCTGCCTCGTTGC | 4798-4817 |
| HeA-12R-O | TGTCGTCAGGTATCGCACTG | 5482-5463 |
| HeA-12F-I | TGCCTACGAAACGTCTTGCT | 4815-4834 |
| HeA-12R-I | CGTCAGGTATCGCACTGTGT | 5479-5460 |
| HeA-13F | GAGTACCGCGACTACGTGTT | 5245-5264 |
| HeA-13R | TCTGGAAAGCGCCATAAGCA | 6250-6231 |
| HeA-14F | TTACCATCCGAACCACCGAT | 6086-6105 |
| HeA-14R | TTTCGAGGACGATTCCCACC | 6990-6971 |
| HeA-15F | TCTGAATGAGGGCAACGTCC | 6132-6151 |
| HeA-15R | TCGAGGTAACGTGTGTACATT | 7084-7064 |
