

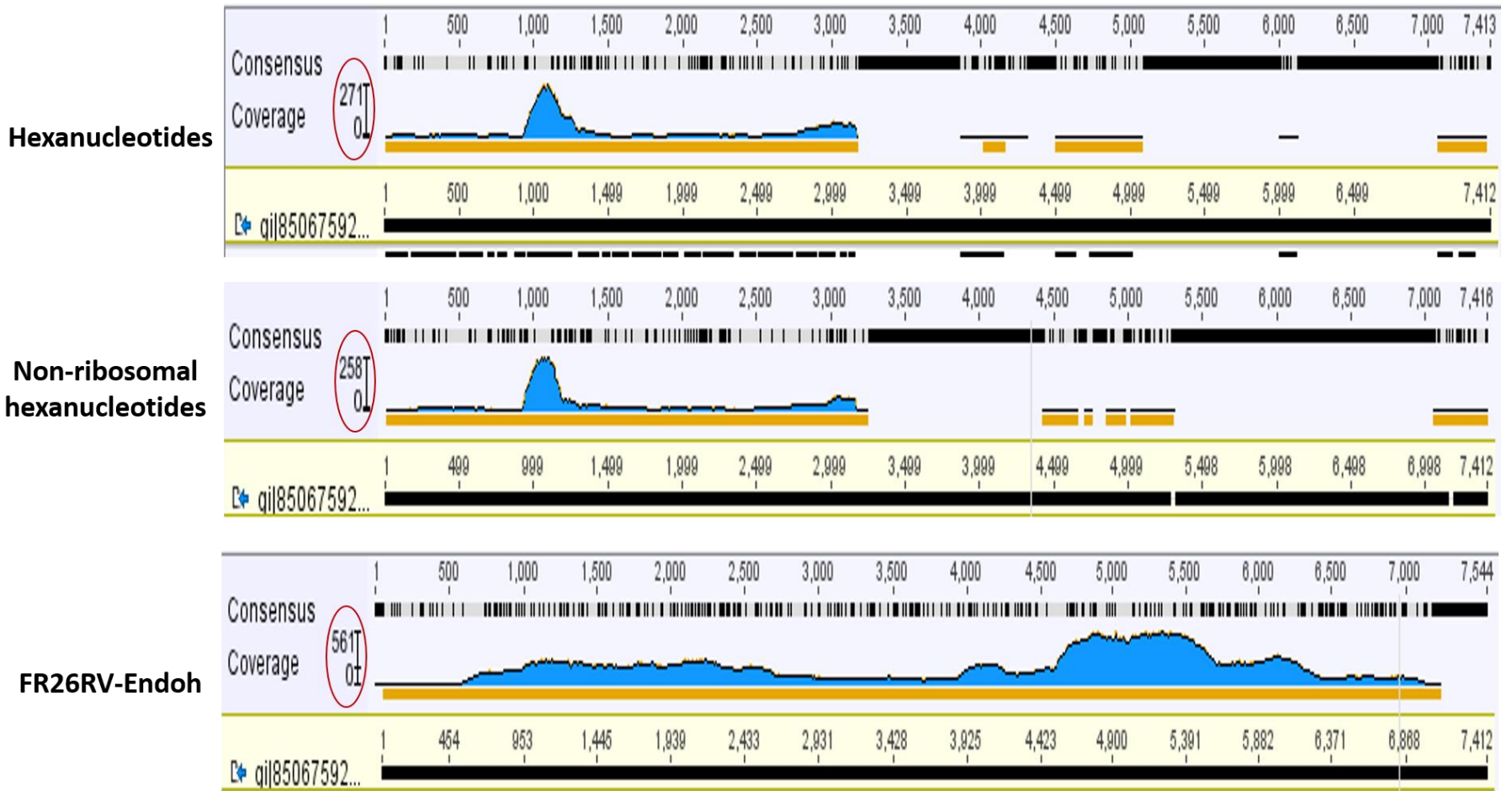
**Supplementary Table 1: List of 96 FR26RV-Endoh and FR20RV primer sequences**

| Primer | Sequence of primer (5'-3') | Primer | Sequence of primer (5'-3') | Primer | Sequence of primer(5'-3')   |
|--------|----------------------------|--------|----------------------------|--------|-----------------------------|
| FR20RV | GCCGGAGCTCTGCAGATATC       | 33     | GCCGGAGCTCTGCAGATATCTAGTCG | 66     | GCCGGAGCTCTGCAGATATCTAACGC  |
| 1      | GCCGGAGCTCTGCAGATATCGATATC | 34     | GCCGGAGCTCTGCAGATATCGTAGAC | 67     | GCCGGAGCTCTGCAGATATCGGTCAT  |
| 2      | GCCGGAGCTCTGCAGATATCTAGTAT | 35     | GCCGGAGCTCTGCAGATATCCTATAG | 68     | GCCGGAGCTCTGCAGATATCCTCATA  |
| 3      | GCCGGAGCTCTGCAGATATCTATAGT | 36     | GCCGGAGCTCTGCAGATATCTAGCTA | 69     | GCCGGAGCTCTGCAGATATCAATTTG  |
| 4      | GCCGGAGCTCTGCAGATATCTATATA | 37     | GCCGGAGCTCTGCAGATATCACTACT | 70     | GCCGGAGCTCTGCAGATATCCTGGTA  |
| 5      | GCCGGAGCTCTGCAGATATCATACTA | 38     | GCCGGAGCTCTGCAGATATCTAACGA | 71     | GCCGGAGCTCTGCAGATATCTTCATG  |
| 6      | GCCGGAGCTCTGCAGATATCATATAT | 39     | GCCGGAGCTCTGCAGATATCCGACTA | 72     | GCCGGAGCTCTGCAGATATCGCGATA  |
| 7      | GCCGGAGCTCTGCAGATATCGTGCAC | 40     | GCCGGAGCTCTGCAGATATCTACTAG | 73     | GCCGGAGCTCTGCAGATATCACTAAG  |
| 8      | GCCGGAGCTCTGCAGATATCACTATA | 41     | GCCGGAGCTCTGCAGATATCAGTAGT | 74     | GCCGGAGCTCTGCAGATATCGCATA   |
| 9      | GCCGGAGCTCTGCAGATATCCGTAAT | 42     | GCCGGAGCTCTGCAGATATCGTTAAC | 75     | GCCGGAGCTCTGCAGATATCCAATAT  |
| 10     | GCCGGAGCTCTGCAGATATCCTATAC | 43     | GCCGGAGCTCTGCAGATATCGTCTAC | 76     | GCCGGAGCTCTGCAGATATCACCGTA  |
| 11     | GCCGGAGCTCTGCAGATATCTATACG | 44     | GCCGGAGCTCTGCAGATATCTACAAG | 77     | GCCGGAGCTCTGCAGATATCGTGCTA  |
| 12     | GCCGGAGCTCTGCAGATATCTATGCG | 45     | GCCGGAGCTCTGCAGATATCTACCAG | 78     | GCCGGAGCTCTGCAGATATCACGCTA  |
| 13     | GCCGGAGCTCTGCAGATATCGATACT | 46     | GCCGGAGCTCTGCAGATATCTGGATT | 79     | GCCGGAGCTCTGCAGATATCATGTCCG |
| 14     | GCCGGAGCTCTGCAGATATCCGTATA | 47     | GCCGGAGCTCTGCAGATATCTCGTTA | 80     | GCCGGAGCTCTGCAGATATCAGCTTA  |
| 15     | GCCGGAGCTCTGCAGATATCGTATAG | 48     | GCCGGAGCTCTGCAGATATCATAGTA | 81     | GCCGGAGCTCTGCAGATATCCGACAT  |
| 16     | GCCGGAGCTCTGCAGATATCCGGTTA | 49     | GCCGGAGCTCTGCAGATATCATAGTC | 82     | GCCGGAGCTCTGCAGATATCGCTATA  |
| 17     | GCCGGAGCTCTGCAGATATCAATAGT | 50     | GCCGGAGCTCTGCAGATATCCTAGTA | 83     | GCCGGAGCTCTGCAGATATCGCTATG  |
| 18     | GCCGGAGCTCTGCAGATATCCGCATA | 51     | GCCGGAGCTCTGCAGATATCGTACTA | 84     | GCCGGAGCTCTGCAGATATCTGTAAG  |
| 19     | GCCGGAGCTCTGCAGATATCATTACG | 52     | GCCGGAGCTCTGCAGATATCTAAGTT | 85     | GCCGGAGCTCTGCAGATATCAACTTA  |
| 20     | GCCGGAGCTCTGCAGATATCTTAACA | 53     | GCCGGAGCTCTGCAGATATCATATCC | 86     | GCCGGAGCTCTGCAGATATCATAACG  |
| 21     | GCCGGAGCTCTGCAGATATCAGTATC | 54     | GCCGGAGCTCTGCAGATATCTCGATA | 87     | GCCGGAGCTCTGCAGATATCATGTTA  |
| 22     | GCCGGAGCTCTGCAGATATCTGTAA  | 55     | GCCGGAGCTCTGCAGATATCGTACCA | 88     | GCCGGAGCTCTGCAGATATCTGGTAT  |
| 23     | GCCGGAGCTCTGCAGATATCACTATT | 56     | GCCGGAGCTCTGCAGATATCGTATCA | 89     | GCCGGAGCTCTGCAGATATCTGCGTA  |
| 24     | GCCGGAGCTCTGCAGATATCTAACCG | 57     | GCCGGAGCTCTGCAGATATCATACTC | 90     | GCCGGAGCTCTGCAGATATCGGATAT  |
| 25     | GCCGGAGCTCTGCAGATATCCGATAT | 58     | GCCGGAGCTCTGCAGATATCACATTA | 91     | GCCGGAGCTCTGCAGATATCCATAGC  |
| 26     | GCCGGAGCTCTGCAGATATCGTATAC | 59     | GCCGGAGCTCTGCAGATATCATATTG | 92     | GCCGGAGCTCTGCAGATATCCATACT  |
| 27     | GCCGGAGCTCTGCAGATATCAATCCA | 60     | GCCGGAGCTCTGCAGATATCCGTCTA | 93     | GCCGGAGCTCTGCAGATATCCGATA   |
| 28     | GCCGGAGCTCTGCAGATATCTAGCAC | 61     | GCCGGAGCTCTGCAGATATCCTTAGT | 94     | GCCGGAGCTCTGCAGATATCTTACTA  |
| 29     | GCCGGAGCTCTGCAGATATCATATCG | 62     | GCCGGAGCTCTGCAGATATCCTTACA | 95     | GCCGGAGCTCTGCAGATATCACTCGT  |
| 30     | GCCGGAGCTCTGCAGATATCAATATT | 63     | GCCGGAGCTCTGCAGATATCTTATGC | 96     | GCCGGAGCTCTGCAGATATCTAAGGT  |
| 31     | GCCGGAGCTCTGCAGATATCTATAGC | 64     | GCCGGAGCTCTGCAGATATCATACGC |        |                             |
| 32     | GCCGGAGCTCTGCAGATATCCTTGTA | 65     | GCCGGAGCTCTGCAGATATCCGCTTA |        |                             |

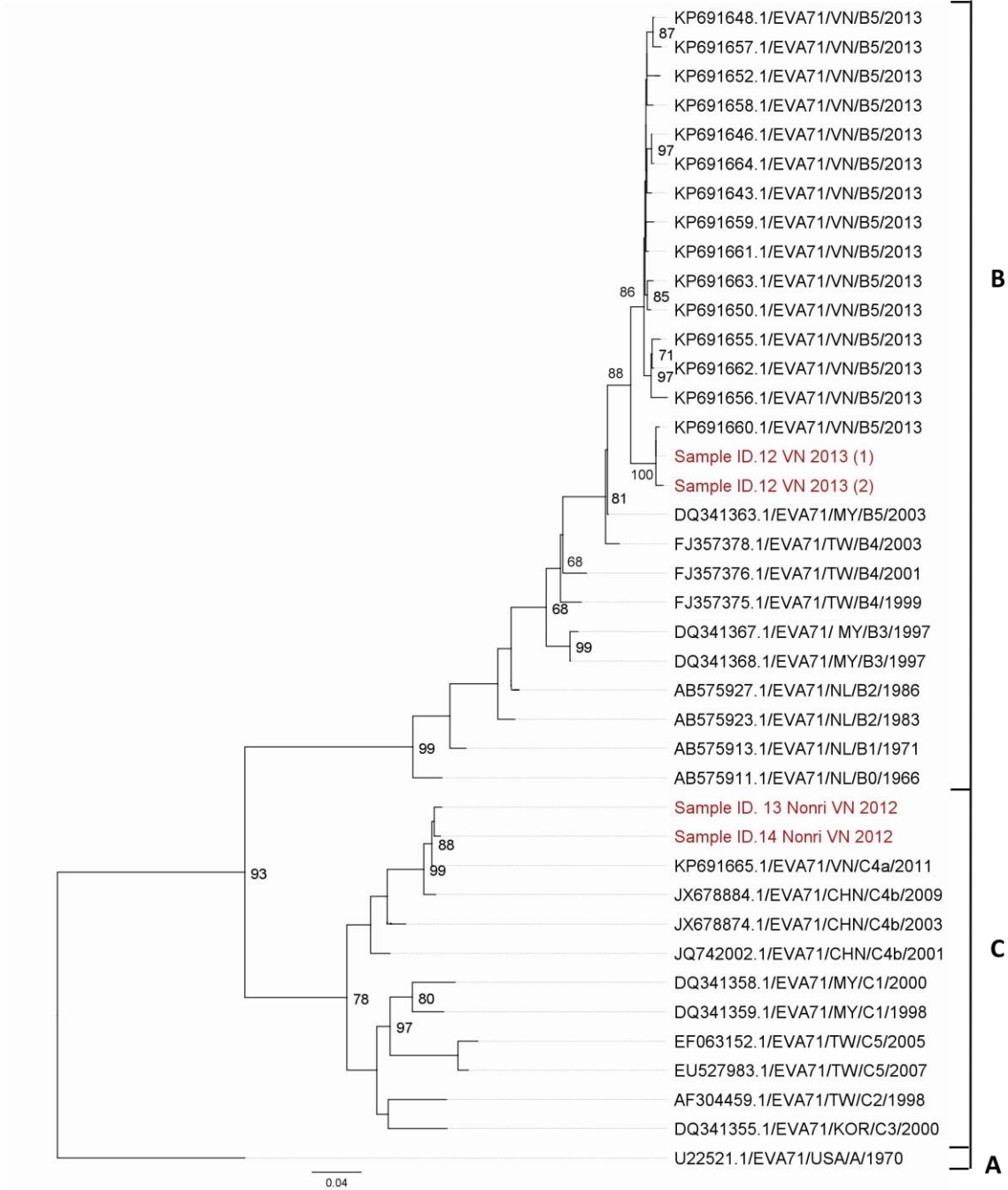
**Supplementary Table 2.** Summary results of consensus sequence variations recorded between 2 replicates of 3 tested swabs

| Virus  | Sample ID | Cp value | % pairwise identity | SNP | Location | Depth     | Synonymous/<br>Nonsynonymous |
|--------|-----------|----------|---------------------|-----|----------|-----------|------------------------------|
| CV-A6  | 4         | 32.06    | 99.96               | A→T | 5'UTR    | 1062/3170 | NA                           |
|        |           |          |                     | G→A | VP2      | 333/1917  | Synonymous                   |
| CV-A10 | 7         | 26.71    | 99.99               | A→G | 3D       | 231/205   | Synonymous                   |
|        | 8         | 33.2     | 99.99               | G→A | 2C       | 205/231   | Synonymous                   |

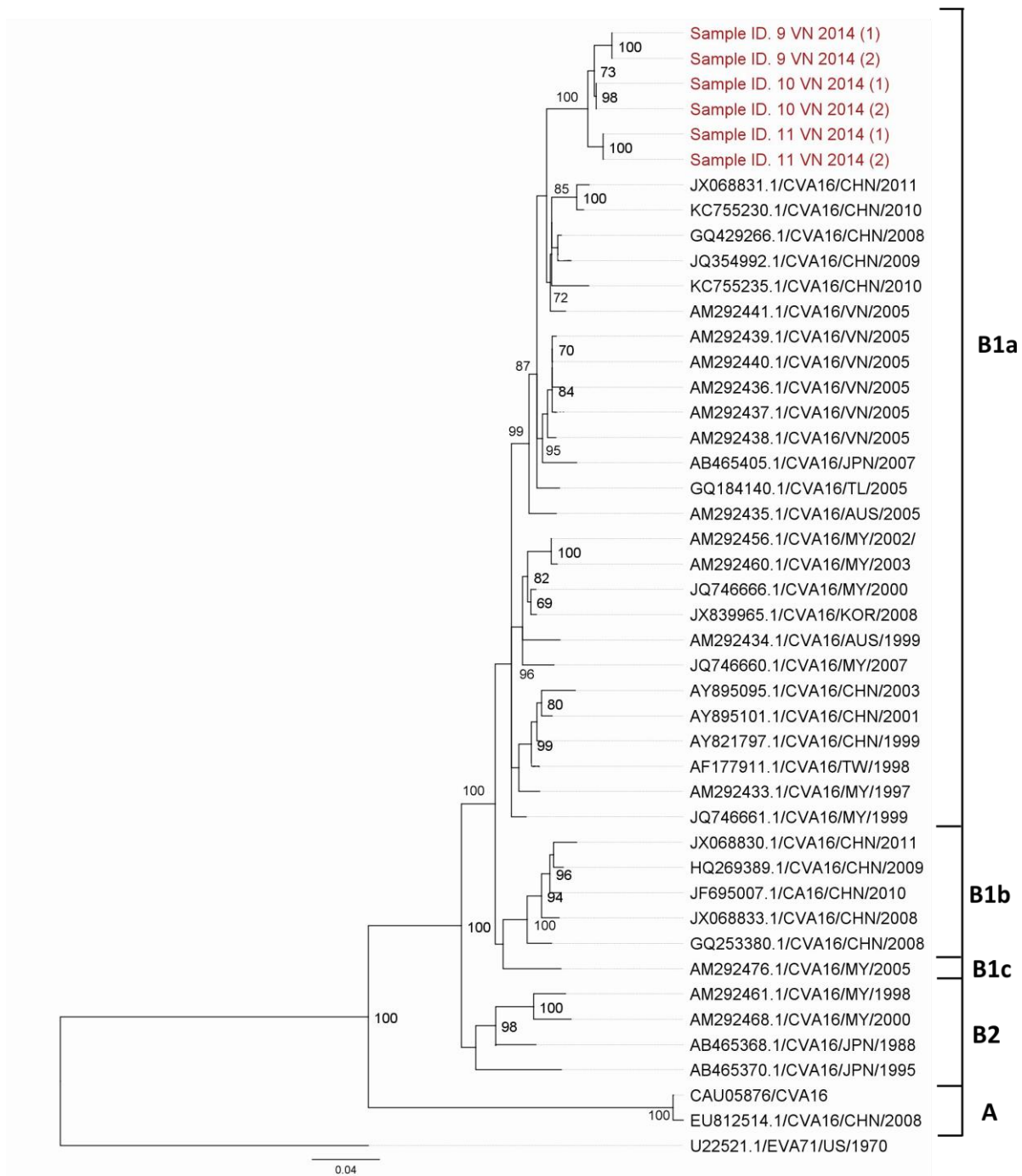
**Note:** NA: non applicable



**Supplementary Figure 1:** Screen snapshots showing mapping results EV-A71 MiSeq reads to an EV-A71 reference genome of sample ID15; non-ribosomal rPCR assay (bottom panel), non-ribosomal hexanucleotide primers assay (middle panel) and hexanucleotide assay (top panel); the genome sequencing depth is indicated by the Y axis and covered by red circles.



**Supplementary Figure 2:** Maximum likelihood phylogenetic tree based on completed VP1 nucleotide sequences (891nt) of EV-A71 strains obtained from this study (in bold red) and representatives retrieved from GenBank. Scale bars indicated numbers of nucleotide substitution per site. CHN, China; USA, United states; TW, Taiwan; NL, Netherlands; MY, Malaysia; KOR, Korean; VN, Vietnam.



**Supplementary Figure 3:** Maximum likelihood phylogenetic tree based on completed VP1 nucleotide sequences (891nt) of CV-A16 strains obtained from this study (in bold red) and representatives retrieved from GenBank. Scale bars indicated numbers of nucleotide substitution per site. CHN, China; US, United states; TL, Thailand; JPN, Japan; AUS, Australia; MY, Malaysia; KOR, Korean; VN, Vietnam.