A reverse transcription loop-mediated isothermal amplification for broad coverage detection of Asian and African Zika virus lineages

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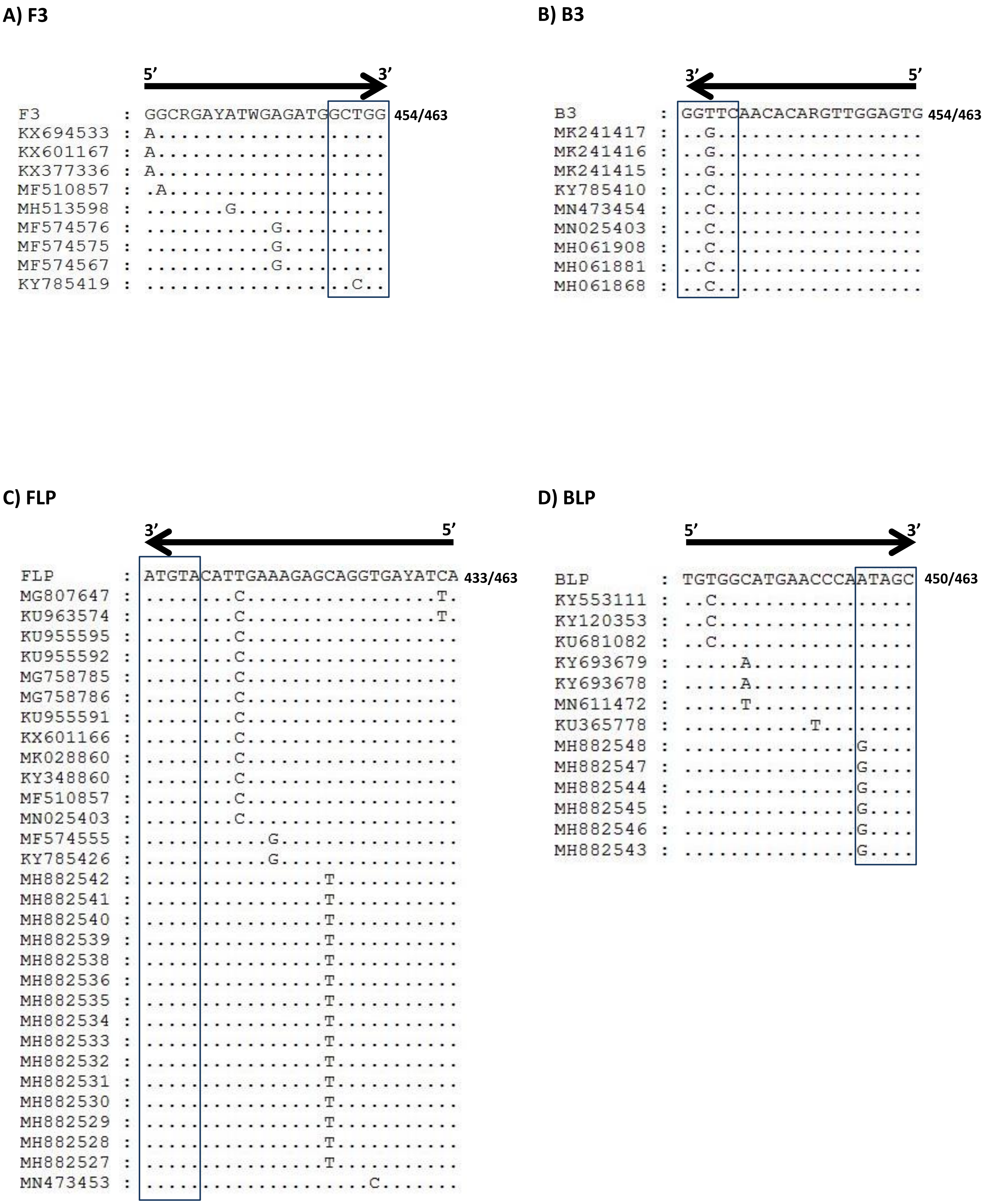

A) F3

```
                   5'                   3'
F3         : GGCRGAYATWGAGATGGCTGG 454/463
KX694533   : A....................
KX601167   : A....................
KX377336   : A....................
MF510857   : .A...................
MH513598   : .......G.............
MF574576   : ...........G.........
MF574575   : ...........G.........
MF574567   : ...........G.........
KY785419   : ..................C..
```

B) B3

```
              3'                   5'
B3         : GGTTCAACACARGTTGGAGTG 454/463
MK241417   : ..G..................
MK241416   : ..G..................
MK241415   : ..G..................
KY785410   : ..C..................
MN473454   : ..C..................
MN025403   : ..C..................
MH061908   : ..C..................
MH061881   : ..C..................
MH061868   : ..C..................
```

C) FLP

```
              3'                       5'
FLP        : ATGTACATTGAAAGAGCAGGTGAYATCA 433/463
MG807647   : ........C.................T.
KU963574   : ........C.................T.
KU955595   : ........C...................
KU955592   : ........C...................
MG758785   : ........C...................
MG758786   : ........C...................
KU955591   : ........C...................
KX601166   : ........C...................
MK028860   : ........C...................
KY348860   : ........C...................
MF510857   : ........C...................
MN025403   : ........C...................
MF574555   : ...........G................
KY785426   : ...........G................
MH882542   : ................T...........
MH882541   : ................T...........
MH882540   : ................T...........
MH882539   : ................T...........
MH882538   : ................T...........
MH882536   : ................T...........
MH882535   : ................T...........
MH882534   : ................T...........
MH882533   : ................T...........
MH882532   : ................T...........
MH882531   : ................T...........
MH882530   : ................T...........
MH882529   : ................T...........
MH882528   : ................T...........
MH882527   : ................T...........
MN473453   : ....................C.......
```

D) BLP

```
              5'                  3'
BLP        : TGTGGCATGAACCCAATAGC 450/463
KY553111   : ..C.................
KY120353   : ..C.................
KU681082   : ..C.................
KY693679   : .....A..............
KY693678   : .....A..............
MN611472   : .....T..............
KU365778   : ...........T........
MH882548   : ...............G....
MH882547   : ...............G....
MH882544   : ...............G....
MH882545   : ...............G....
MH882546   : ...............G....
MH882543   : ...............G....
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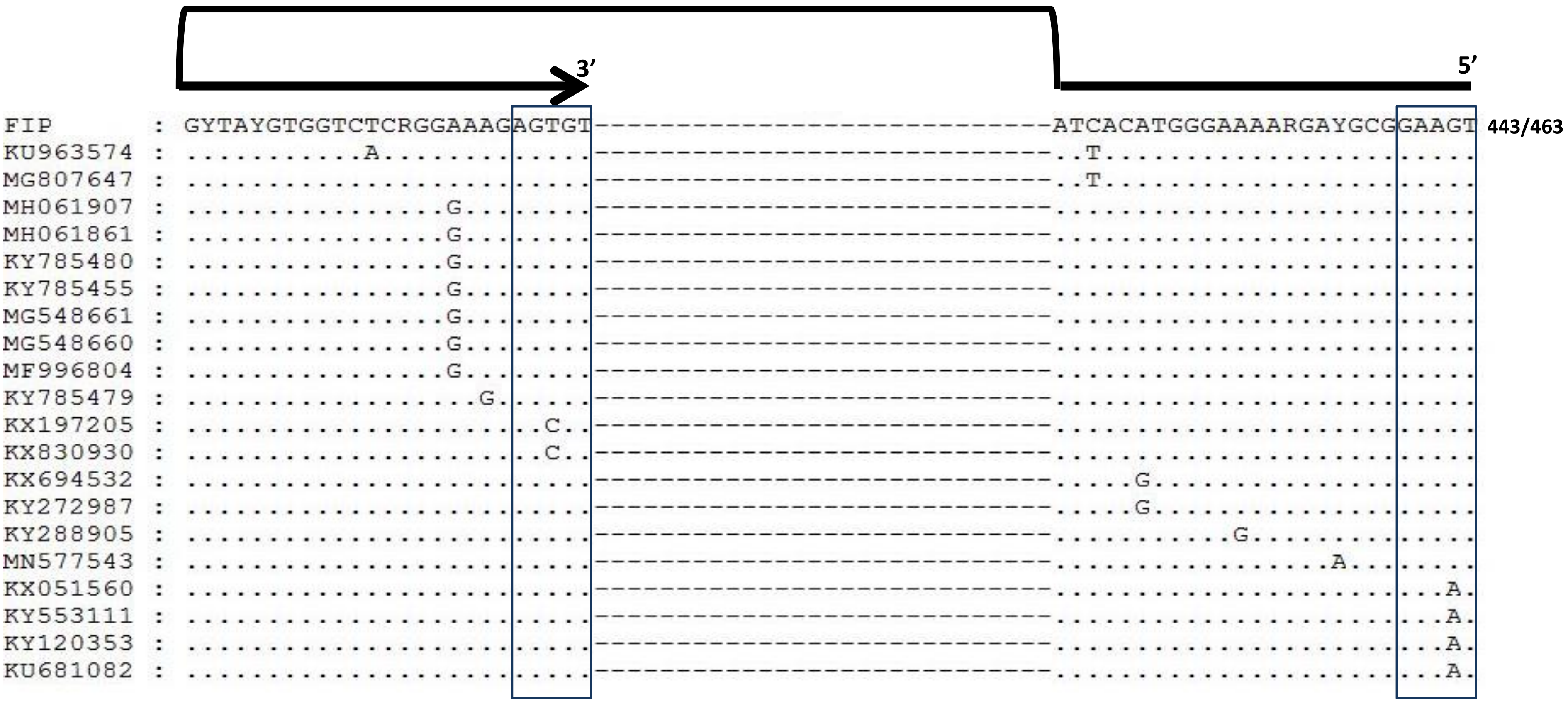
E) FIP



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FIP      : GYTAYGTGGTCTCRGGAAAGAGTGT----------------------------ATCACATGGGAAAARGAYGCGGAAGT
KU963574 : ...........A.............----------------------------..T.......................
MG807647 : .........................----------------------------..T.......................
MH061907 : ................G........----------------------------..........................
MH061861 : ................G........----------------------------..........................
KY785480 : ................G........----------------------------..........................
KY785455 : ................G........----------------------------..........................
MG548661 : ................G........----------------------------..........................
MG548660 : ................G........----------------------------..........................
MF996804 : ................G........----------------------------..........................
KY785479 : ..................G......----------------------------..........................
KX197205 : ......................C..----------------------------..........................
KX830930 : ......................C..----------------------------..........................
KX694532 : .........................----------------------------.....G....................
KY272987 : .........................----------------------------.....G....................
KY288905 : .........................----------------------------...........G..............
MN577543 : .........................----------------------------.................A........
KX051560 : .........................----------------------------........................A.
KY553111 : .........................----------------------------........................A.
KY120353 : .........................----------------------------........................A.
KU681082 : .........................----------------------------........................A.
```
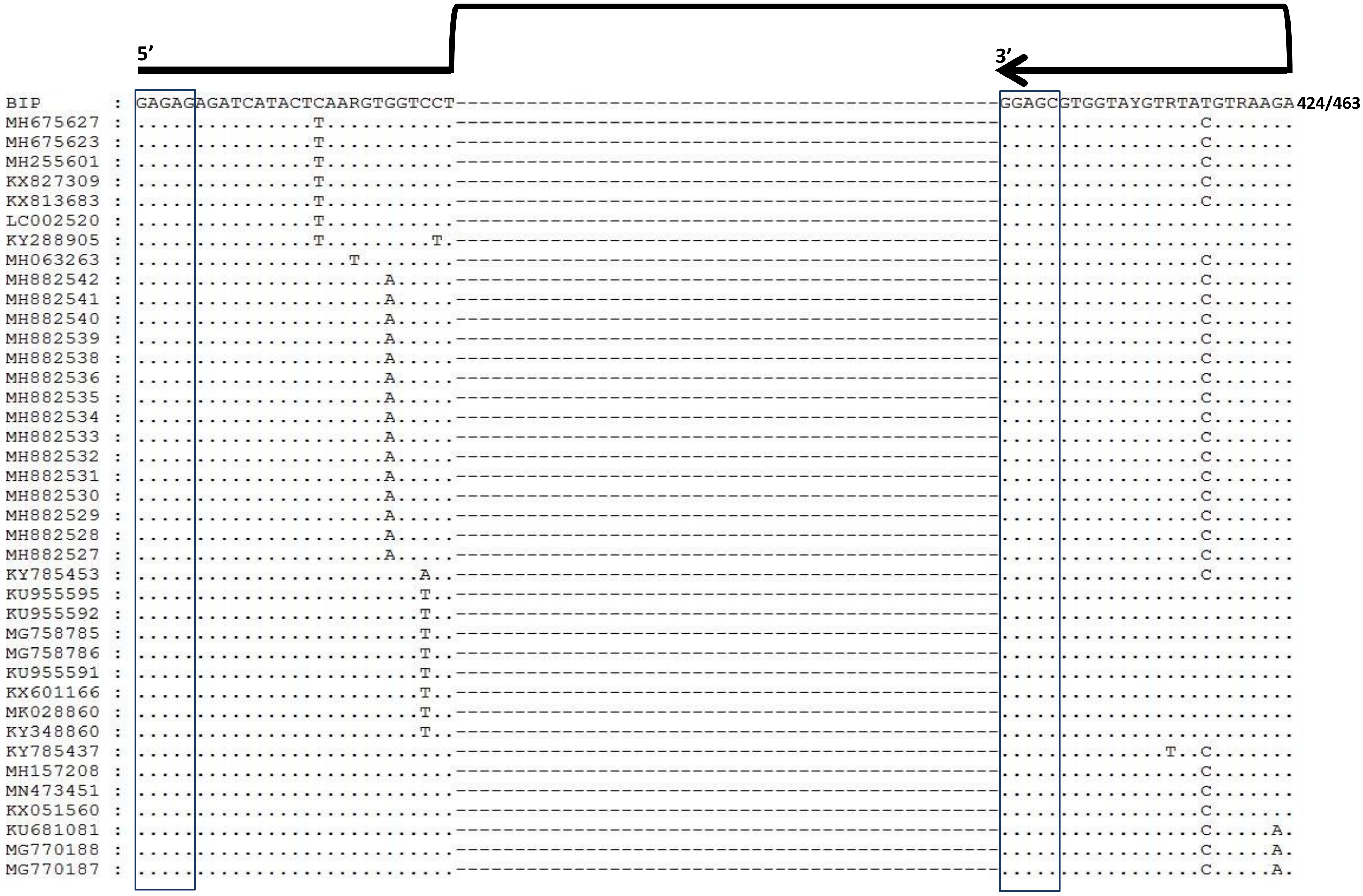

F) BIP



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BIP      : GAGAGAGATCATACTCAARGTGGTCCT----------------------------------------------GGAGCGTGGTAYGTRTATGTRAAGA
MH675627 : ...............T...........----------------------------------------------.................C.......
MH675623 : ...............T...........----------------------------------------------.................C.......
MH255601 : ...............T...........----------------------------------------------.................C.......
KX827309 : ...............T...........----------------------------------------------.................C.......
KX813683 : ...............T...........----------------------------------------------.................C.......
LC002520 : ...............T...........----------------------------------------------.........................
KY288905 : ...............T.........T.----------------------------------------------.........................
MH063263 : ..................T........----------------------------------------------.................C.......
MH882542 : .....................A.....----------------------------------------------.................C.......
MH882541 : .....................A.....----------------------------------------------.................C.......
MH882540 : .....................A.....----------------------------------------------.................C.......
MH882539 : .....................A.....----------------------------------------------.................C.......
MH882538 : .....................A.....----------------------------------------------.................C.......
MH882536 : .....................A.....----------------------------------------------.................C.......
MH882535 : .....................A.....----------------------------------------------.................C.......
MH882534 : .....................A.....----------------------------------------------.................C.......
MH882533 : .....................A.....----------------------------------------------.................C.......
MH882532 : .....................A.....----------------------------------------------.................C.......
MH882531 : .....................A.....----------------------------------------------.................C.......
MH882530 : .....................A.....----------------------------------------------.................C.......
MH882529 : .....................A.....----------------------------------------------.................C.......
MH882528 : .....................A.....----------------------------------------------.................C.......
MH882527 : .....................A.....----------------------------------------------.................C.......
KY785453 : ........................A..----------------------------------------------.........................
KU955595 : ........................T..----------------------------------------------.........................
KU955592 : ........................T..----------------------------------------------.........................
MG758785 : ........................T..----------------------------------------------.........................
MG758786 : ........................T..----------------------------------------------.........................
KU955591 : ........................T..----------------------------------------------.........................
KX601166 : ........................T..----------------------------------------------.........................
MK028860 : ........................T..----------------------------------------------.........................
KY348860 : ........................T..----------------------------------------------.........................
KY785437 : ...........................----------------------------------------------..............T..C.......
MH157208 : ...........................----------------------------------------------.................C.......
MN473451 : ...........................----------------------------------------------.................C.......
KX051560 : ...........................----------------------------------------------.................C.......
KU681081 : ...........................----------------------------------------------.................C.....A.
MG770188 : ...........................----------------------------------------------.................C.....A.
MG770187 : ...........................----------------------------------------------.................C.....A.
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Figure S2. Nucleotide mismatches of the RT-LAMP primers against 463 ZIKV genome sequences. The top sequences are primer sequences. Total numbers of ZIKV genomes with 100% sequence similarity to the primers are shown at 3’ end of the primers. Only the ZIKV genomes with nucleotide mismatches to the primer are listed. The dots indicate the same nucleotides as the top sequence. The boxes indicate the nucleotide positions which are critical for priming and amplification.