**Table S1.** Primer pairs used for site directed mutagenesis.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Primer Set | Primer Code | Nucleotide Sequence (5’→3’) | Target Region | Product size (base) | First Annealing Temperature (°C) | Second Annealing Temperature (°C) | Polarity |
| ChiE71-1-BC | 1BC F | ACACAGATGGTTACGTTAATTGGGATATAGA CATAACTGGTTACGC | VP1 BC loop | 89 | 67 | 72 | Sense |
| 1BC R | TCTGTGTACCCGTGGTGGGGAGATCTATCTC TCCTACCAAGCC | Antisense |
| ChiE71-1-DE | 1DE F | AGTCCCCCAATTACTTCAGTATATGTTTGTTCC | VP1 DE loop | 72 | 58 | 70 | Sense |
| 1DE R | AGCTCACCATTGGGTTTGCACGCAACAAAAGT GAATTCC | Antisense |
| ChiE71-1-EF | 1EF F | GATTCATTCGCTTGGCAAACTGCTACCAACCC ATCAGTTTTTGTCAAGTTGACTGATCCC | VP1 EF loop | 117 | 64 | 72 | Sense |
| 1EF R | TCTGGAAGTGGGTTTCGGAGCCCCTGGCGGAA CAAACATATACTGAAGTAATTGTG GG | Antisense |
| ChiE71-1-HI | 1HI F | AGTCCCACACTCCAAGGATATATATGAGAATG AAGC | VP1 HI loop | 76 | 57 | 72 | Sense |
| 1HI R | TCTCGGTCCCTACTCGCACCGAGAAAGTGCCC ATCATATTATT | Antisense |
| ChiE71-3-GH | 3GH F | CGTGCTGGGTACTTTGACTATTACACCACCGG CCTGGTTAGTATCTGGTATCAAACAAAC | VP3 GH loop | 120 | 63 | 72 | Sense |
| 3GH R | GGCATGCGCCCTATAGTGTGTGTTACTAATCC ATGGTATTACAAGGGTGACAGATGATTG | Antisense |
| ChiE71-1-1GH | 1GH F | ATCCCCCGGCACAGGTCTCAGTTCCCTTCATGT CACCAGCC | VP1 GH loop | 41 | 72 | 72 | Sense |
| 1GH R | AAAGTGCCCATCATATTATTCGGACATTGACCA TAATCTAGG | 42 | 72 | 72 | Antisense |
| 1GH F2 | DNA product of PCR using 1GH F and 1GH R:  ATCCCCCGGCACAGGTCTCAGTTCCCTTCATGT CACCAGCCAGCGCATACCAGTGGTTTTATGATG GTTATCCCACCTTTGGAGAACATCTCCAAGCAA ATGACCTAGATTATGGTCAATGTCCGAAT AATATGATGGGCACTTT | 145 | 65 | 72 | Sense |
| 1GH R2 | CAGTCAACTTGACAAAAACTGAGG | 24 | 65 | 72 | Antisnese |
| ChiE71-2-EF | CVP2 EF F | TATGTGCTCGGCACTATCGC | VP2 EF loop | 20 | 68 | 72 | Sense |
| CVP2 EF R1 | TCCGTAGGTTAATCCATTGGTGAGGGCATA CAGTTAATTGGCTCAAAGGG | 50 | 68 | 72 | Antisense |
| CVP2 EF F | DNA product of PCR using CVP2 EF F and CVP2 EF R:  TATGTGCTCGGCACTATCGCAGGAGGGACC  GGGAACGAGAATTCTCATCCCCCCTACGCC ACTACACAGCCTGGTCAGGTTGGTGCAGTC  CTGACGCACCCTTATGTGCTAGATGCAGGG ATCCCTTTGAGCCAATTAACTGTATGCCCTC ACCAATGGATTAACCTACGGA | 172 | 65 | 72 | Sense |
| CVP2 EF R2 | CTCTGGAAGTATAGCGACTAACAACGCTCCT TGATGGAACTTGC | 44 | 65 | 72 | Antisense |