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| **Construction** | **Name of primer pairs** | **Sequences\*** | **Position, mutation introduced or fragment** |
| pcDNA VP3 FL K157D | VP3.157 | 5’ ATGCAGAG***G***A***C***AGCCGGTTGGCATC 3’ (sense)5’ AACCGGCT***G***T***C***CTCTGCATGCAC 3’ (antisense) | 157, K to D |
| pcDNA VP3 FL R159D | VP3.159  | 5’ GCATGCAGAGAAGAGC***GAC***TTGGCATCAG 3’ (sense)5’ ***GTC***GCTCTTCTCTGCATGCACGTAGTCTAG 3’ (antisense) | 159, R to D |
| pcDNA VP3 FL H198D | VP3.198 | 5’ GTCTATGAAATCAAC***G***ATGGACGTGGC 3’ (sense)5’ ***C***GTTGATTTCATAGACTTTGGCAACTTC 3’ (antisense) | 198, H to D |
| pcDNA VP3 FL R200D | VP3.200 | 5’ GAAATCAACCATGGA***GA***TGGCCCAAAC 3’ (sense)5’ ***TC***TCCATGGTTGATTTCATAGACTTTGG 3’ (antisense) | 200, R to D |
| pFastBacHTb-his-VP3 FL | VP3.FwVP3.Rv | 5’GGATCCGCTGCATCAGAGTTCAAAGAGAC 3’5’GAATTCTCACTCAAGGTCCTCATCAGAG 3’ | VP3 FL |
| pFastBacHTb-his-VP3 ∆223-257 | VP3.FwVP3.83-222.Rv | 5’GGATCCGCTGCATCAGAGTTCAAAGAGAC 3’5’ GAATTCTCAATTGCGATGCTTCATCTC 3 3’ | VP3 ∆223-257 |
| TrxA.His.Ts.2xFYVE | 2xFYVE | 5’ ACCGACGACGACGACAAGGAAAGTGATGCCATGTT 3’ (sense)5’ GTGGTGGTGGTGCTCGAGGCCCGCGGTACCGTCGA 3’ (antisense) | 2xFYVE |
| TrxA.His.Ts.VP3FL | VP3.FL.FwVP3.FL.Rv | 5’ CTGGTGCCACGCGGTTCTGCATCAGAGTTCAAAGA 3’5’ GCCCGCGGTACCGTCGACTTACTCAAGGTCCTCAT 3’ | VP3 FL |
| TrxA.His.Ts.VP3∆223-257 | VP3.FL.FwVP3.∆223257.Rv | 5’ CTGGTGCCACGCGGTTCTGCATCAGAGTTCAAAGA 3’5’ GCCCGCGGTACCGTCGACTCAATTGCGATGCTTCA3’ | VP3 ∆223-257 |

Supplementary file 1. Primers