

## APPENDIX

**The sequence alignment of the PB1 is as follows:**

>PB1

GACATGCGGCATCTATCATGCAGTCGAGCGAATGGATTAAGAGCTTGCTCTTATGAA  
GTTAGCGGCGGAC

GGGTGAGTAACACGTGGGTAACCTGCCATAAGACTGGGATAACTCCGGGAAACCG  
GGGCTAATACCGGA

TAACATTTTGAACCGCATGGTTCGAAATTGAAAGGCGGCTTCGGCTGTCACTTATGG  
ATGGACCCGCGTC

GCATTAGCTAGTTGGTGAGGTAACGGCTCACCAAGGCAACGATGCGTAGCCGACCT  
GAGAGGGTGATCGG

CCCACTGGGACTGAGACACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATC  
TTCCGCAATGGACG

AAAGTCTGACGGAGCAACGCCGCGTGAGTGATGAAGGCTTTCGGGTCGTAAAACTC  
TGTTGTTAGGGAAA

AACAAGTGCTTGTTGAAAAGCTGGCACCTTGACGGTACCTAACCAGAAAGCCACGG  
GTA ACTACGTGCCA

GCAGCCGCGGTAATACGTAGGTGGCAAGCGTTATCCGGAATTAGTGGGCGTAAAGC  
GCGCGAAAGGGGTT

TCTTAAGTCTGAATGAAAAGCCCACGGCTCACCCGTGGGAGGGGCATTGGGATATT  
GGGAAATTTTGTG

CA

**The sequence alignment of the PB2 is as follows:**

>PB2

GGCGGCGATCTATACATGCAGTAGAACGCTGAGAGAGGAGCTTGCTCTTCTTGGATG  
AGTTGCGAACGGG  
TGAGTAACGCGTAGGTAACCTGCCTTGTAGCGGGGATAACTATTGGAAACGATAG  
CTAATACCGCATAA  
CAATGGATGACACATGTCATTTATTTGAAAGGGGCAATTGCTCCACTACAAGATGGA  
CCTGCGTTGTATT  
AGCTAGTAGGTGAGGTAATGGCTCACCTAGGCGACGATACATAGCCGACCTGAGAG  
GGTGATCGGCCACA  
CTGGGACTGAGACACGGCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCGG  
CAATGGGGGCAACC  
CTGACCGAGCAACGCCGCGTGAGTGAAGAAGGTTTTTCGGATCGTAAAGCTCTGTTGT  
AAGTCAAGAACGG  
GTGTGAGAGTGGAAAGTTCACACTGTGACGGTAGCTTACCAGAAAGGGACGGCTAA  
CTACGTGCCAGCAG  
CCGCGGTAATACGTAGGTCCCGAGCGTTGTCCGGATTTATTGGGCGTAAAGCGAGCG  
CAGGCGGTTTGAT  
AAGTCTGAAGTTAAAGGCTGTGGCTCAACCATAGTTCGCTTTGGAAACTGTCAA  
TGAGTGCAGAAGG

GGAGAGTGAATTCCATGTGTAGCGGTGAAATGCGTAGATATATGGAGGAACACCG  
GTGGCGAAAGCGGC  
TCTCTGGTCTGTAAGTACGCTGAGGCTCGAAAGCGTGGGGAGCGAACAGGATTAG  
ATACCCTGGTAGTC  
CACGCCGTAAACGATGAGTGCTAGGTGTTGGATCCTTTCCGGGATTCAGTGCCGCAG  
CTAACGCATTAAG  
CACTCCGCCTGGGGAGTACGACCGCAAGGTTGAAACTCAAAGGAATTGACGGGGGC  
CCGCACAAGCGGTG  
GAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGTCTTGACCTCCCG  
ATGCTATTTCTAG  
AGATAGAAAGTTACTTCGGTACATCGGTGACAGGTGGTGCATGGTTGTCGTCAGCTC  
GTGTCGTGAGATG  
TTGGGTAAAGTCCCGCAACGAGCGCAACCCCTATTGTTAGTTGCCATCATTAGTTG  
GGCACTCTAGCGA  
GACTGCCGGTAATAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCT  
TATGACCTGGGCTA  
CACACGTGCTACAATGGTTGGTACAACGAGTTGCGAGTCGGTGACGGCGAGCTAAT  
CTCTTAAAGCCAAT  
CTCAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTCGGAATCGCTAGTAATC  
GCGGATCAGCACG  
CCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCACGAGAGTTT  
GTAACACCCGAAG

TCGGTGAGGTAACCTTTTGGAGCCAGCCGCCTAAGGTGGATAACAAT

**The sequence alignment of the PB3 is as follows:**

>PB3

GCGCATCTATACATGCAGTAGAACGCTGAGAGAGGAGCTTGCTCTTCTTGGATGAGT

TGCGAACGGGTGA

GTAACGCGTAGGTAACCTGCCTTGTAGCGGGGGATAACTATTGGAAACGATAGCTA

ATACCGCATAACAA

TGGATGACACATGTCATTTATTTGAAAGGGGCAATTGCTCCACTACAAGATGGACCT

GCGTTGTATTAGC

TAGTAGGTGAGGTAATGGCTCACCTAGGCGACGATACATAGCCGACCTGAGAGGGT

GATCGGCCACACTG

GGACTGAGACACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCGGCAA

TGGGGGCAACCCTG

ACCGAGCAACGCCGCGTGAGTGAAGAAGGTTTTTCGGATCGTAAAGCTCTGTTGTAA

GTCAAGAACGGGTG

TGAGAGTGGAAAGTTCACACTGTGACGGTAGCTTACCAGAAAGGGACGGCTAACTA

CGTGCCAGCAGCCG

CGGTAATACGTAGGTCCCGAGCGTTGTCCGGATTTATTGGGCGTAAAGCGAGCGCA

GGCGGTTTGATAAG

TCTGAAGTTAAAGGCTGTGGCTCAACCATAGTTCGCTTTGGAAACTGTCAAACCTGA

GTGCAGAAGGGGA

GAGTGGAATTCCATGTGTAGCGGTGAAATGCGTAGATATATGGAGGAACACCGGTG  
GCGAAAGCGGCTCT  
CTGGTCTGTAAGTACGCTGAGGCTCGAAAGCGTGGGGAGCGAACAGGATTAGATA  
CCCTGGTAGTCCAC  
GCCGTAAACGATGAGTGCTAGGTGTTGGATCCTTTCCGGGATTCAGTGCCGCAGCTA  
ACGCATTAAGCAC  
TCCGCCTGGGGAGTACGACCGCAAGGTTGAAACTCAAAGGAATTGACGGGGGCCCG  
CACAAGCGGTGGAG  
CATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGTCTTGACATCCCGATG  
CTATTTCTAGAGA  
TAGAAAGTTACTTCGGTACATCGGTGACAGGTGGTGCATGGTTGTCGTCAGCTCGTG  
TCGTGAGATGTTG  
GGTTAAGTCCCGCAACGAGCGCAACCCCTATTGTTAGTTGCCATCATTAGTTGGGC  
ACTCTAGCGAGAC  
TGCCGGTAATAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTAT  
GACCTGGGCTACAC  
ACGTGCTACAATGGTTGGTACAACGAGTTGCGAGTCGGTGACGGCGAGCTAATCTCT  
TAAAGCCAATCTC  
AGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTCGGAATCGCTAGTAATCGCG  
GATCAGCACGCCG  
CGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCACGAGAGTTTGTA  
ACACCCGAAGTCG

GTGAGGTAACCTTTGGAGCCAGCCGCCTAAGGTTGAAAAGT

**The sequence alignment of the PB4 is as follows:**

>PB4

TGGGCGCTATACATGCAGTAGAACGCTGAAGAGAGGAGCTTGCTCTTCTTGGATGA

GTTGCGAACGGGTG

AGTAACGCGTAGGTAACCTGCCTTGTAGCGGGGGATAACTATTGGAAACGATAGCT

AATACCGCATAACA

ATGGATGACACATGTCATTTATTTGAAAGGGGCAATTGCTCCACTACAAGATGGACC

TGCGTTGTATTAG

CTAGTAGGTGAGGTAATGGCTCACCTAGGCGACGATACATAGCCGACCTGAGAGGG

TGATCGGCCACACT

GGGACTGAGACACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCGGCA

ATGGGGGCAACCCT

GACCGAGCAACGCCGCGTGAGTGAAGAAGGTTTTCGGATCGTAAAGCTCTGTTGTA

AGTCAAGAACGGGT

GTGAGAGTGGAAAGTTCACACTGTGACGGTAGCTTACCAGAAAGGGACGGCTAACT

ACGTGCCAGCAGCC

GCGGTAATACGTAGGTCCCGAGCGTTGTCCGGATTTATTGGGCGTAAAGCGAGCGC

AGGCGGTTTGATAA

GTCTGAAGTTAAAGGCTGTGGCTCAACCATAGTTCGCTTTGGAACTGTCAAACCTG

AGTGCAGAAGGGG

AGAGTGGAATTCCATGTGTAGCGGTGAAATGCGTAGATATATGGAGGAACACCGGT  
GGCGAAAGCGGCTC  
TCTGGTCTGTAAGTACGCTGAGGCTCGAAAGCGTGGGGAGCGAACAGGATTAGAT  
ACCCTGGTAGTCCA  
CGCCGTAAACGATGAGTGCTAGGTGTTGGATCCTTTCCGGGATTCAGTGCCGCAGCT  
AACGCATTAAGCA  
CTCCGCCTGGGGAGTACGACCGCAAGGTTGAAACTCAAAGGAATTGACGGGGGCC  
GCACAAGCGGTGGA  
GCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGTCTTGACATCCCGAT  
GCTATTTCTAGAG  
ATAGAAAGTTACTTCGGTACATCGGTGACAGGTGGTGCATGGTTGTCGTCAGCTCGT  
GTCGTGAGATGTT  
GGGTTAAGTCCCGCAACGAGCGCAACCCCTATTGTTAGTTGCCATCATTAGTTGGG  
CACTCTAGCGAGA  
CTGCCGGTAATAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCTTA  
TGACCTGGGCTACA  
CACGTGCTACAATGGTTGGTACAACGAGTTGCGAGTCGGTGACGGCGAGCTAATCTC  
TTAAAGCCAATCT  
CAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTCGGAATCGCTAGTAATCGC  
GGATCAGCACGCC  
GCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCACGAGAGTTTGT  
AACACCCGAAGTC

GGTGAGGTAACCTTTTGGAGCCAGCCGCCTAAGGGTGGAAACCAG

**The sequence alignment of the PB5 is as follows:**

>PB5

GGGGCATTCTATACATGCAAGTAGAACGCTGAAGAGAGGAGCTTGCTCTTCTTGGAA

TGAGTTGCGAACG

GGTGAGTAACGCGTAGGTAACCTGCCTTGTAGCGGGGGATAACTATTGGAAACGAT

AGCTAATACCGCAT

AACAATGGATGACACATGTCATTTATTTGAAAGGGGCAATTGCTCCACTACAAGATG

GACCTGCGTTGTA

TTAGCTAGTAGGTGAGGTAATGGCTCACCTAGGCGACGATACATAGCCGACCTGAG

AGGGTGATCGGCCA

CACTGGGACTGAGACACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTC

GGCAATGGGGGCAA

CCCTGACCGAGCAACGCCGCGTGAGTGAAGAAGGTTTTTCGGATCGTAAAGCTCTGTT

GTAAGTCAAGAAC

GGGTGTGAGAGTGGAAAGTTCACACTGTGACGGTAGCTTACCAGAAAGGGACGGCT

AACTACGTGCCAGC

AGCCGCGGTAATACGTAGGTCCCGAGCGTTGTCCGGATTTATTGGGCGTAAAGCGA

GCGCAGGCGGTTTG

ATAAGTCTGAAGTTAAAGGCTGTGGCTCAACCATAGTTCGCTTTGGAAACTGTCAAA

CTTGAGTGCAGAA



GGGGAGAGTGGAATTCCATGTGTAGCGGTGAAATGCGTAGATATATGGAGGAACAC  
CGGTGGCGAAAGCG  
GCTCTCTGGTCTGTAAGTACGCTGAGGCTCGAAAGCGTGGGGAGCGAACAGGATT  
AGATACCCTGGTAG  
TCCACGCCGTAAACGATGAGTGCTAGGTGTTGGATCCTTTCCGGGATTCAGTGCCGC  
AGCTAACGCATTA  
AGCACTCCGCCTGGGGAGTACGACCGCAAGGTTGAAACTCAAAGGAATTGACGGGG  
GCCCCGACAAGCGG  
TGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGTCTTGACATCC  
CGATGCTATTTCT  
AGAGATAGAAAGTTACTTCGGTACATCGGTGACAGGTGGTGCATGGTTGTCGTCAGC  
TCGTGTCGTGAGA  
TGTTGGGTAAAGTCCCGCAACGAGCGCAACCCCTATTGTTAGTTGCCATCATTAGT  
TGGGCACTCTAGC  
GAGACTGCCGGTAATAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCC  
CTTATGACCTGGGC  
TACACACGTGCTACAATGGTTGGTACAACGAGTTGCGAGTCGGTGACGGCGAGCTA  
ATCTCTTAAAGCCA  
ATCTCAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTCGGAATCGCTAGTAA  
TCGCGGATCAGCA  
CGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCACGAGAGT  
TTGTAACACCCGA

AGTCGGTGAGGTAACCTTTTGGAGCCAGCCGCCAAGTGACAAATTGCCTTTTTTTTT  
AAGTTTTTTC

**The sequence alignment of the PB6 is as follows:**

>PB6

AAGGGGGGCGTTCCTAATCATGCAAGTCGAGCGATGGATTAAGAGCTTGCTCTTATG  
AAGTTAGCGGCGG  
ACGGGTGAGTAACACGTGGGTAACCTGCCATAAGACTGGGATAACTCCGGGAAAC  
CGGGGCTAATACCG  
GATAACATTTTGAACCGCATGGTTCGAAATTGAAAGGCGGCTTCGGCTGTCACTTAT  
GGATGGACCCGCG  
TCGCATTAGCTAGTTGGTGAGGTAACGGCTCACCAAGGCAACGATGCGTATCCGACC  
TGAGAGGGTGATC  
GGCCACCTGGGACTGAAACACGGCCATACTCCTACGGGAGGCGGCAGTAGGGAAT  
CTCCGCAATGGAC  
GAAAGTCTGACGGAACAACGCCGCGTGAGTGATGAAGGCTTTCGGGTCGTAAAAC  
CTGTTGTTAGGGAA  
CAACAATGCTATTTTGAAT

**The sequence alignment of the PB7 is as follows:**

>PB7

AGGGGGGGGTTTCCTATACATGCAGTCGACGCGTTGGCCCAATTGATTGATGGTGCT  
TGCACCTGATTGA  
TTTTGGTCGCCAACGAGTGGCGGACGGGTGAGTAACACGTAGGTAACCTGCCCAGA  
AGCGGGGGACAACA  
TTTGAAACAGATGCTAATACCGCATAACAGCGTTGTTTCGCATGAACAACGCTTAAA  
AGATGGCTTCTCG  
CTATCACTTCTGGATGGACCTGCGGTGCATTAGCTTGTTGGTGGGGTAACGGCCTAC  
CAAGGCCATGATG  
CATATCCGAATTGAAAGACTGACCCGCCACAATGGGAC

**The sequence alignment of the PB8 is as follows:**

>PB8

CGGGGTGCCTATACTGCAGTAGACGCTGAGAGAGGAGCTTGCTCTTCTTGGATGAGT  
TGCGAACGGGTGA  
GTAACGCGTAGGTAACCTGCCTTGTAGCGGGGATAACTATTGAAACGATAGCTA  
ATACCGCATAACAA  
TGGATGACACATGTCATTTATTTGAAAGGGGCAATTGCTCCACTACAAGATGGACCT  
GCGTTGTATTAGC

TAGTAGGTGAGGTAATGGCTCACCTAGGCGACGATACATACCCGACCTGAGAGGGT  
GATCGGCCACAATG  
GGACTGAAAACGGACCAAACCTCCTACATGAGGCT

**The sequence alignment of the PB9 is as follows:**

>PB9

GGGGCGTCCTATCATGCAGTAGACGCTGAGAGAGGAGCTTGCTCTTCTTGGATGAGT  
TGCGAACGGGTGA  
GTAACGCGTAGGTAACCTGCCTTGTAGCGGGGGATAACTATTGGAAACGATAGCTA  
ATACCGCATAACAA  
TGGATGACACATGTCATTTATTTGAAAGGGGCAATTGCTCCACTACAAGATGGACCT  
GCGTTGTATTAGC  
TAGTAGGTGAGGTAATGGCTCACCTAGGCGACGATACATAGCCGACCTGAGAGGGT  
GATCGGCCACACTG  
GGACTGAGACACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCGGCAA  
TGGGGGCAACCCTG  
ACCGAGCAACGCCGCGTGAGTGAAGAAGGTTTTTCGGATCGTAAAGCTCTGTTGTAA  
GTCAAGAACGGGTG  
TGAAAATGGAAAGT

**The sequence alignment of the PB10 is as follows:**

>PB10

TGGGGGGGGGCCCTATCATGCAGTAGACGCTGAGAGAGGAGCTTGCTCTTCTTGGAT  
GAGTTGCGAACGG  
GTGAGTAACGCGTAGGTAACCTGCCTTGTAGCGGGGGATAACTATTGGAAACGATA  
GCTAATACCGCATA  
ACAATGGATGACACATGTCATTTATTTGAAAGGGGCAATTGCTCCACTACAAGATGG  
ACCTGCGTTGTAT  
TAGCTAGTAGGTGAGGTAATGGCTCACCTAGGCGACGATACATAGCCGACCTGAGA  
GGGTGATCGGCCAC  
ACTGGGACTGAAACACGGCCCAGACTCCTACGGGAGGCAGCATTAGGGAATCTTCG  
GCAATGGGGGCAAC  
CCTGACCGAGCAACGCCGCGTGAGTGAAGAAGGTTTTCGGATCGTAAAGCTCTGTTG  
TAAGTCAAGAACG  
GGTGTGAGAGTGGAAGTTCACACTGTGACGGTAGCTTACCAGAAAGGGACGGCTA  
ACTACGTGCCAGCA  
GCGGCGGGAGTACGTAGGTCCCGAGCGTTGTCCGGATTGATTGGGCGTAAAGCGAG  
CTCAGGCGGTTTGA  
TAAGTTGGAAAGTAAAAGGGTGTGGGCTCAACCATAGTGTCGCTTTTGGAACTGTCA  
AACTTTGGGGTGC  
AGA