Virus sequence info:

SARS coronavirus, complete genome

NCBI Reference Sequence: NC 004718.3

Influenza A virus (A/AA/Huston/1945(H1N1)) segment 1, complete sequence

GenBank: CY021716.1

Zika virus isolate ZIKV/Homo sapiens/PAN/CDC-259249_V1-V3/2015, complete genome

GenBank: MN124091.1

Measles morbillivirus complete genome

NCBI Reference Sequence: NC 001498.1

Group 1 Sequences:

> SARS virus strain 2 patients New York City

GTGACGAGCTTGGCACTGATCCCATTGAAGATTATGAACAAAACTGGAACACTAAGCATGGCAGTGGTGC

> Influenza A virus_1_Albany

TCAATTATATCAATATGGAAAGAATAAAAGAACTAAGGAATCTAATGTCGCAATCTCGCACTCGCGAGA > Zika virus 1 Chicago

CGTTAGTGGACAGAGGCTGGGGAAATGGATGTGGACTTTTTGGCAAAGGGAGCCTGGTGACATGCGCTAA
> Influenza A virus 1 Wichita

GGGCAACAGCTATACTCAGĀAĀAGCAACCAGGAGATTGATTCAGCTGATAGTGAGTGGAAGAGACGAACA

> Measles virus_2_Washington_D.C.

AGGATTCAAGATCCTATTATCAGGGACAAGAGCAGGATTAGGGATATCCGAGATGGCCACACTTTTGAGG
> SARS virus strain 1 Austin

TTTAAAACTTACTGACAATGTTGCCATTAAATGTGTTGACATCGTTAAGGAGGCACAAAGTGCTAATCCT > Zika virus 1 Washington D.C.

Group 2 Samples:

> Influenza A virus 2 Boston

TGATGATATTGATCAAAGTCTAATTATTGCTGCTAGGAACATAGTGAGAAGAGCTGCTGTATCAGCAGAT > Zika virus 2 Helena

TGTGTACGGAACCTGCCATCACAAAAAAGGTGAAGCACGGAGATCTAGAAGAGCCGTGACGCTCCCCTCC > SARS virus strain 1 Denver

GAATCAAACACATTATTATAGTACCAATTCCTGGAGATTCCTCAATTACCACTCGATCCAGACTACTGGA
> Influenza A virus 1 Lincoln

ATTAACGATAACCAAAGAGAAGAAGAAGAAGAACTCAAGGATTGCAAAATTTCTCCTTTGATGGTTGCATAC
> SARS virus strain 1 LA

GAGTACACTGGTAACTATCAGTGTGGTCATTACACTCATATAACTGCTAAGGAGACCCTCTATCGTATTG > Zika virus 1 LA

TCAGTTCATGGCTCCCAGCACAGTGGGATGATTGTTAATGACACAGGACATGAAACTGATGAGAATAGAG

Group 3 Samples:

> Measles virus 1 New York

GGCTGTTAGAGGTTGTTCAGAGTGACCAGTCACAATCTGGCCTTACCTTCGCATCAAGAGGTACCAACAT > Zika virus 1 Cheyenne

GGGAAGCTCAACGAGCCAAAAAGTCATATACTTGGTCATGATACTGCTGATTGCCCCGGCATACAGCATC > SARS virus strain 1 Sacramento

GTGAAGTCTTCATCGCTCAAAGCAAGGGACTTTACCGTCAGTGTATACGTGGCAAGGAGCAGCTGCAACT > Influenza A virus 2 Bismark

AGGTGCATAGGAGTCAGCAATAGGGACTTTGTGGAAGGTATGTCAGGTGGGACTTGGGTTGATGTCGTCT > SARS virus strain 2 Las Vegas

TTACATATGCATCTGCACTCTGGGAAATCCAGCAAGTTGTTGATGCGGATAGCAAGATTGTTCAACTTAG
> Influenza A virus 1 LA

Group 4 Samples:

> SARS virus strain 2 sacramento

AACAAGGCACTCGAAATGTGCATTGATCAAGTCACTATCGCTGGCGCAAAGTTGCGATCACTTAG > Zika virus 1 Miami

GGGATGAATAAGTGTTATATACAGATCATGGATCTTGGACACATGTGTGATGCCACCATGAGCTATGAAT
> Measles virus 2 Miami

GAGCTATGCCATGGGAGTAGGAGTGGAACTTGAAAACTCCATGGGAGGTTTGAACTTTGGTCGATCTTAC

> SARS virus strain 1 Sante Fe

TATTCTCATGACAGCTCGCACTGTTTATGATGATGCTGCTAGACGTGTTTGGACACTGATGAATGTCATT > Zika virus 1 Dallas

TGGAACATGGAGGTTGTCACCGTAATGGCACAGGACAAACCGACTGTCGACATAGAGCTGGTTACAAC
> Influenza A virus 1 Salt lake city

AAAAATCTACAAAACTTATTTTGAAAAAGTCGAAAGGTTAAAACATGGAACCTTTGGCCCTGTCCATTTT
> SARS virus strain 1 LA

GTATACGGCATGCTCTCATGCAGCTGTTGATGCCCTATGTGAAAAGGCATTAAAATATTTGCCCATAGAT

Group 5 Samples:

> Zika virus 1 Raleigh

TGGGAGTGCATATCTTATATGTACTTGGACAGAAACGATGCTGGGGAGGCCATATCTTTTCCAACCACATTG
> Measles virus 1 Miami

GCTACAGAGAAACCGGGTCCAGCAGAGCAAGTGATGCGAGAGCTGCCCATCCTCCAACCAGCATGCCCCT > SARS virus strain 2 LA

TCTTTGGAGTACAAAGCCAGTAGATACTTCAAATTCATTTGAAGTTCTGGCAGTAGAAGACACACAAGGA
> Influenza A virus 1 Sante Fe

ATGTTAGAGAGAGAACTAGTCCGCAAAACGAGATTCCTCCCAGTTGCTGGTGGAACAAGCAGTGTGTACA
> SARS virus strain 1 Chicago

CCTCTACTTTGACAAGGCTGGTCAAAAGACCTATGAGAGACATCCGCTCTCCCATTTTGTCAATTTAGAC
> Influenza A virus 1 Atlanta

CCCGTCACTTAGGATGAAATGGATGGCAATGAAATATCCAATTACAGCAGACAAAAGGATAACGGAA
> SARS virus strain 1 Seattle

 $\tt TTTGTCCGTATCCAACCTGGTCAAACATTTTCAGTTCTAGCATGCTACAATGGTTCACCATCTGGTGTTT$

Group 6 samples:

> Influenza A virus 1 Washington D.C.

TACTCACAAAAACCACCGTGGACCATATGGCCATAATCAAGAAATACACATCAGGAAGACAGGAAAAGAA > SARS virus strain 1 Las Vegas

TGGATTCATATTACTCATTGCTGATGCCCATCCTCACTTTGACTAGGGCATTGGCTGCTGAGTCCCATAT > Zika virus 2 New York

TTAGAGTCGAAAATTGGATATTCAGGAACCCTGGTTTCGCTTTAGCAGCAGCTGCCATCGCTTTGCTTTT
> Measles virus 1 Atlanta

GGTCAAGGACGTGCTGACACCACTCTTCAAGATCATTGGTGATGAAGTGGGCCTGAGGACACCTCAGAGA
> Influenza A virus 1 Seattle

CCACTAGCATCTTTATTGGAGATGTGCCACAGCACACAGATTGGTGGAACAAGGATGGTGGACATTCTTA
> SARS virus strain 1 LA

AATGCTAGTTAAACAAGGAGATGATTACGTGTACCTGCCTTACCCAGATCCATCAAGAATATTAGGCGCA > Zika virus 1 sacrameto

CATTCCACTAGGAAGCTGCAAACGCGGTCGCAAACCTGGTTGGAATCAAGAGAATACACAAAGCACTTGA

Group 7 Samples:

> Influenza A virus 2 Sacramento

ACGGGCAATCTTCAAACATTGAAGATAAGGGTGCATGAGGGATATGAAGAATTCACAATGGTTGGGAGAA > Zika virus 2 Wichita

GCCCTATGCTGGATGAGGGGGTGGAACCAGATGACGTCGATTGTTGGTGCAACACGACGTCAACTTGGGT
> Measles virus 1 Chicago

GTACGGGGGAACTTACCTAGTGGGAAAGCCTAATCTGAGCAGTAAAGGGTCAGAGTTGTCACAACTGAGC
> SARS virus strain 2 Salt lake city

CTGTCACCATACTTGATGGTATTTCTGAACAGTCATTACGTCTTGTCGACGCCATGGTTTATACTTCAGA
> Influenza A virus 1 Denver

AATGAGGGATGTGCTTGGGACATTTGACACCACTCAGATAATAAAACTTCTTCCCTTTGCAGCCGCTCCA
> SARS virus strain 1 Cheyenne

AAGCCTAGAGTGGAAGCACCTAAACAAGAGGAGCCACCAAACACAGAAGATTCCAAAACTGAGGAGAAAT

Group 8 Samples:

> SARS virus strain 1 LA

CATTACCAAATGCGAGTTTTGATAATTTCAAACTCACATGTTCTAACACAAAATTTGCTGATGATTTAAA
> Influenza A virus 1 Helena

CACAGGATGTAATCATGGAAGTTGTTTTCCCAAACGAAGTGGGAGCCAGAATACTAACGTCGGAGTCGCA
> Zika virus 1 Baton Rouge

AGCCGCTGCCCAACACAAGGTGAAGCCTACCTTGACAAGCAATCAGACACTCAATATGTYTGCAAAAGAA > Measles virus 1 Washington D.C.

CTCGTCAAGCTAGGTGTCTGGAAATCCCCAACCGACATGCGATCCTGGGTCCCCCTATCAACGGATGATC > Zika virus 1 Boston

 ${\tt CACTCAAGGGTGGTAAGATTGTTAGTACTTGTTTTAAACTTATGCTTAAGGCCACATTATTGTGCGTTCT}$

Group 9 Samples:

> Measles virus 1 Boston

CAAGCACTCTGCGAGAATCCCGAGTGGGCACCATTGAAGGATAACAGGATTCCTTCATACGGGGTCTTGT > Zika virus 1 Madison

GCGCAGAAACTAGTGTCGGAATTGTTGGCCTCCTTCTGACCACAGCTATGGCAGCGGAGGTCACTAGACG > Influenza A virus 1 Nashville

TTGAAGTGTTGCATTTGACTCAAGGAACATGCTGGGAACAGATGTACACTCCAGGTGGAGAAGTGAGGAA
> SARS virus strain 2 Sacramento

CGTCAAGGGTCAAATACAGGTTGCTTCAGATAACATCAAGGATTGTGTAAAATGCTTCATTGATGTTGTT > Influenza A virus 1 Austin

AGAAACCAAGTCAAAATACGCCGAAGAGTTGACATAAATCCTGGCCATGCAGACCTCAGTGCCAAGGAGG > SARS virus strain_1_LA

GGAGTTTTCTGTGGTGTTGATGCGATGAATCTCATAGCTAACATCTTTACTCCTCTTGTGCAACCTGTGG
> Measles virus 1 LA

AGCCCTCTGTCACAGGGAAGATTCTATCACAATTCCCTATCAGGGGTCAGGGAAAGGTGTCAGCTTCCAG

Group 10 samples:

> SARS virus strain 2 patient Santa Fe

TTTGACACTTTCAAAGGGGAATGCCCAAAGTTTGTGTTTCCTCTTAACTCAAAAGTCAAAGTCATTCAAC
> Influenza A virus 1 Des Moines

TGATGGTATCACCTCTGGCTGTGACATGGTGGAATAGAAATGGACCAATGACAAGTACAATTCATTATCC > Measles virus 1 LA

CGGTTCAGGGATGGACCTATACAAAACCAACCACAACAATGTGTATTGGCTGACTATCCCGCCAATGAAG
> Zika virus 1 Dallas

AACAGTCAGCAACATGGCGGAGGTAAGATCCTACTGCTATGAGGCATCAATATCAGACATGGCTTCGGAC > Measles virus 1 Chicago

TGGCATCCGAACTCGGTATCACTGCCGAGGATGCAAGGCTTGTTTCAGAGATTGCAATGCATACTGA
> SARS virus strain 1 patient Seattle

GGCAGAACCCAACAGAAGAACAAGCCGTGGATATATGCAAGGCTGCAATGGGACTGAGAATCAGCTCATC