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

Human papillomavirus type 16 isolate xuca 1916, complete genome

GenBank: MK484705.1

#### Group 1 Sequences:

> SARS virus strain 2 patients New York City

GTGACGAGCTTGGCACTGATCCCATTGAAGATTATGAACAAAACTGGAACACTAAGCATGGCAGTGGTGC > Influenza A virus 1 Albany

TCAATTATTCAATATGGAAAGAATAAAAGAACTAAGGAATCTAATGTCGCAATCTCGCACTCGCGAGA > Zika virus 1 Chicago

CGTTAGTGGACAGAGGCTGGGGAAATGGATGTGGACTTTTTTGGCAAAGGGAGCCTGGTGACATGCGCTAA
> Influenza A virus 1 Wichita

TAAAGAGTTATACGGGGTGAGTTTTTCAGAATTAGTAAGACCATTTAAAAGTAATAAATCAACGTGTTGC
> SARS virus strain 1 Austin

TTTAAAACTTACTGACAATGTTGCCATTAAATGTGTTGACATCGTTAAGGAGGCACAAAGTGCTAATCCT > Zika virus 1 DC

#### Group 2 Samples:

> Influenza A virus 2 Boston

TGATGATATTGATCAAAGTCTAATTATTGCTGCTAGGAACATAGTGAGAAGAGCTGCTGTATCAGCAGAT
> Zika virus 2 Helena

TGTGTACGGAACCTGCCATCACAAAAAAGGTGAAGCACGGAGATCTAGAAGAGCCGTGACGCTCCCCTCC > SARS virus strain 1 Denver

GTGGGGGTGGTTGCAGTCAGTACAGTAGTGGAAGTGGGGGGAGAGGGTGTTAGTGAAAGACACACTATATG
> Influenza A virus\_1\_Nebraska

ATTAACGATAACCAAAGAGAAGAAGAAGAACTCAAGGATTGCAAAATTTCTCCTTTGATGGTTGCATAC > SARS virus strain 1 LA

GAGTACACTGGTAACTATCAGTGTGGTCATTACACTCATATAACTGCTAAGGAGACCCTCTATCGTATTG
> Zika virus 1 LA

TCAGTTCATGGCTCCCAGCACAGTGGGATGATTGTTAATGACACAGGACATGAAACTGATGAGAATAGAG

### Group 3 Samples:

> Human papillomavirus type 16 1 New York

ACTCAGCAGATGTTACAGGTAGAAGGGCGCCATGAGACTGAAACACCATGTAGTCAGTATAGTGGTGGAA > 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
> Human papillomavirus type 16 2 Miami

CACTTAGTGATATTAGTGGATGTGTAGACAATAATATTAGTCCTAGATTAAAAGCTATATGTATAGAAAAA
> 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

TGGGAGTGCATACTATATGTACTTGGACAGAAACGATGCTGGGGAGGCCATATCTTTTCCAACCACATTG
> Human papillomavirus type 16 1 Miami

CAAAGTAGAGCTGCAAAAAGGAGATTATTTGAAAGCGAAGACAGCGGGTATGGCAATACTGAAGTGGAA > SARS virus strain 2 LA

TCTTTGGAGTACAAAGCCAGTAGATACTTCAAATTCATTTGAAGTTCTGGCAGTAGAAGACACACAAGGA > Influenza A virus 1 Sante fe

ATGTTAGAGAGAGAACTAGTCCGCAAAACGAGATTCCTCCCAGTTGCTGGTAGAACAAGCAGTGTGTACA
> SARS virus strain 1 Chicago

CCTCTACTTTGACAAGGCTGGTCAAAAGACCTATGAGAGACATCCGCTCTCCCATTTTGTCAATTTAGAC
> Influenza A virus 1 Atlanta

CCCGTCACTTAGGATGAAATGGATGATGGCAATGAAATATCCAATTACAGCAGACAAAAGGATAACGGAA
> SARS virus strain 1 Seattle

 $\tt TTTGTCCGTATCCAACCTGGTCAAACATTTTCAGTTCTAGCATGCTACAATGGTTCACCATCTGGTGTTT$ 

### Group 6 samples:

> Influenza A virus\_1\_Washington

TACTCACAAAAACCACCGTGGACCATATGGCCATAATCAAGAAATACACATCAGGAAGACAGGAAAAGAA
> SARS virus strain 1 Las Vegas

TGGATTCATATTACTCATTGCTGATGCCCATCCTCACTTTGACTAGGGCATTGGCTGCTGAGTCCCATAT
> Zika virus 2 New York

TTAGAGTCGAAAATTGGATATTCAGGAACCCTGGTTTCGCTTTAGCAGCAGCTGCCATCGCTTGGCTTTT > Human papillomavirus type 16 1 Atlanta

TTTACTGCACAGGAAGCAAAACAACATAGAGATGCAGTACAGGTTCTAAAACGAAAGTATTTGGGTAGTC > 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

> Human papillomavirus type 16 1 Chicago

CCAAACACCACTTACAAATATTTTAAATGTACTAAAAAACTAGTAATGCAAAGGCAGCAATGTTAGCAAAATT > 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 > Human papillomavirus type 16 1 D.C.

GATTGGTGTATTGCTGCATTTGGACTTACACCCAGTATAGCTGACAGTATAAAAACACTATTACAACAAT > Zika virus 1 Boston

 ${\tt CACTCAAGGGTGGTAAGATTGTTAGTACTTGTTTTAAACTTATGCTTAAGGCCACATTATTGTGCGTTCT}$ 

## Group 9 Samples:

> Human papillomavirus type 16 1 Boston

ATTGTTTATATTTACACATTCAAAGTTTAGCATGTTCATGGGGAATGGTTGTGTTACTATTAGTAAGATA > 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
> Human papillomavirus type 16 1 LA

# Group 10 samples:

> SARS virus strain 2 patient Santa fe

TTTGACACTTTCAAAGGGGAATGCCCAAAGTTTGTGTTTTCCTCTTAACTCAAAAGTCAAAGTCATTCAAC > Influenza A virus 1 Des Moines

TGATGGTATCACCTCTGGCTGTGACATGGTGGAATAGAAATGGACCAATGACAAGTACAATTCATTATCC > Human papillomavirus type 16 1 LA

TAGTGGAAAAAAAAACAGGGGATGCTATATCAGATGACGAGAACGAAAATGACAGTGATACAGGTGAAGA > Zika virus 1 Dallas

AACAGTCAGCAACATGGCGGAGGTAAGATCCTACTGCTATGAGGCATCAATATCAGACATGGCTTCGGAC > Human papillomavirus type 16 1 Chicago

TTTGGTAGATTTTATAGTAAATGATAATGATTATTTAACACAGGCAGAAACAGAGACAGCACATGCGTTG > SARS virus strain 1 patient seattle

GGCAGAACCCAACAGAAGAACAAGCCGTGGATATATGCAAGGCTGCAATGGGACTGAGAATCAGCTCATC