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Job **CLUSTALW** (ID: 29ff7b84cee7) is running on **NPS@** server (started on 20210508-225917).
Results will be shown below. **Please wait and don't go back.**

In your publication cite :

NPS@: Network Protein Sequence Analysis
TIBS 2000 March Vol. 25, No 3 [291]:147-150
Combet C., Blanchet C., Geourjon C. and Deléage G.

CLUSTALW multiple alignment

Abstract (/NPSA/npsa_references.html#clustalw) Thompson, J.D., Higgins, D.G. and Gibson, T.J. CLUSTAL W: improving the sensitivity of progressive multiple sequence alignment through sequence weighting, positions-specific gap penalties and weight matrix choice. (1994) Nucleic Acids Research, 22, 4673-4680 [[HELP \(/cgi-bin/npsa_automat.pl?page=/NPSAHLP/npsahlp_alignclustalw.html\)](/cgi-bin/npsa_automat.pl?page=/NPSAHLP/npsahlp_alignclustalw.html)]

Residues repertoire

SHOW alignment with width :
all residues.

Conservation level of % (works with "using conservation level of" option in list above, negative value will hide).

View CLUSTALW in: [[AnTheProt \(PC\) \(https://npsa-prabi.ibcp.fr/cgi-bin/npsa_mpsaview.pl?fn=/tmp/29ff7b84cee7.clustalw.mpsa&gui=antheprot\)](https://npsa-prabi.ibcp.fr/cgi-bin/npsa_mpsaview.pl?fn=/tmp/29ff7b84cee7.clustalw.mpsa&gui=antheprot)], [Download... \(http://antheprot-pbil.ibcp.fr/\)](http://antheprot-pbil.ibcp.fr/)] [[HELP \(https://npsa-prabi.ibcp.fr/cgi-bin/npsa_automat.pl?page=/NPSAHLP/npsahlp_locsoft.html\)](https://npsa-prabi.ibcp.fr/cgi-bin/npsa_automat.pl?page=/NPSAHLP/npsahlp_locsoft.html)]

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                10      20      30      40      50      60
                |      |      |      |      |      |
Moderna      GGGAAATAAGAGAGAAAAGAAG-AGTAAGAAGAAATATAAGACCCCGGCGCCGCCACCAT
Pfizer      -GAGAATAAACTAGTATTCTTCTGGTCCCCACAGACTCAGAGA--GAACCCGCCACCAT
          *  *****  ** *          **  * * *  *          *  *****
Prim.cons.  GG22AATAA222AG2A22222T2GT2222A2A2A222A2222CCCG222CCGCCACCAT

                70      80      90      100     110     120
                |      |      |      |      |      |
Moderna      GTTCGTGTTCTGGTGCTGCTGCCCTGGTGAGCAGCCAGTGCGTGAACCTGACCACCCG
Pfizer      GTTCGTGTTCTGGTGCTGCTGCCCTGGTGCCAGCCAGTGTGTGAACCTGACCACCAG
          *****  *****  *****  *****  *****  *
Prim.cons.  GTTCGTGTTCTGGTGCTGCTGCC2CTGGTG22CAGCCAGTG2GTGAACCTGACCACC2G

                130     140     150     160     170     180
                |      |      |      |      |      |
Moderna      GACCCAGCTGCCACCAGCCTACACCAACAGCTTACCCGGGGCGTCTACTACCCCGACAA
Pfizer      AACACAGCTGCCTCCAGCCTACACCAACAGCTTTACCAGAGGCGTGTACTACCCCGACAA
          **  *****  *****  *****  *****  *****
Prim.cons.  2AC2CAGCTGCC2CCAGCCTACACCAACAGCTT2ACC2G2GGCGT2TACTACCCCGACAA

                190     200     210     220     230     240
                |      |      |      |      |      |
Moderna      GGTGTTCCGGAGCAGCGTCTGCACAGCACCCAGGACCTGTTCTGCCCTTCTTCAGCAA
Pfizer      GGTGTTCCAGATCCAGCGTGCTGCACTCTACCCAGGACCTGTTCTGCCCTTCTTCAGCAA
          *****  *  *****  *****  *****  *****
Prim.cons.  GGTGTTCC2G222CAGCGT2CTGCAC222ACCCAGGACCTGTTCTGCC2TCTTCAGCAA

                250     260     270     280     290     300
                |      |      |      |      |      |
Moderna      CGTGACCTGGTTCCACGCCATCCACGTGAGCGGCACCAACGGCACCAAGCGGTTTCGACAA
Pfizer      CGTGACCTGGTTCCACGCCATCCACGTGTCGGCACCAATGGCACCAAGAGATTCGACAA
          *****  *****  *****  *****  *****  *
Prim.cons.  CGTGACCTGGTTCCACGCCATCCACGTG22CGGCACCAA2GGCACCAAG2G2TTCGACAA

                310     320     330     340     350     360
                |      |      |      |      |      |
Moderna      CCCCCTGCTGCCCTTCAACGACGGCGTGACTTCCGCCAGCACCGAGAAGAGCAACATCAT
Pfizer      CCCCCTGCTGCCCTTCAACGACGGGGTGACTTTGCCAGCACCGAGAAGTCCAACATCAT
          *****  *****  *****  *****  *****
Prim.cons.  CCCCCTGCTGCCCTTCAACGACGG2GTGACTT2GCCAGCACCGAGAAG22CAACATCAT

                370     380     390     400     410     420
                |      |      |      |      |      |
Moderna      CCGGGGCTGGATCTTCGGCACCACTGGACAGCAAGACCCAGAGCCTGCTGATCGTGAA
Pfizer      CAGAGGCTGGATCTTCGGCACCACTGGACAGCAAGACCCAGAGCCTGCTGATCGTGAA
          * * *****  *****  *****  *****  *****

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Prim.cons.  C2G2GGCTGGATCTTCGGCACCCAC2CTGGACAGCAAGACCCAGAGCCTGCTGATCGTGAA
              430      440      450      460      470      480
              |        |        |        |        |        |
Moderna     TAACGCCACCAACGTGGTGTATCAAGGTGTGCGAGTTCAGTTCTGCAACGACCCCTTCCT
Pfizer      CAACGCCACCAACGTGGTGTATCAAGGTGTGCGAGTTCAGTTCTGCAACGACCCCTTCCT
*****
Prim.cons.  2AACGCCACCAACGTGGT2ATCAA2GTGTGCGAGTTCAGTTCTGCAACGACCCCTTCCT
              490      500      510      520      530      540
              |        |        |        |        |        |
Moderna     GGGCGTGTACTACCACAAGAACAACAAGAGCTGGATGGAGAGCGAGTTCGGGTGTACAG
Pfizer      GGGCGTGTACTACCACAAGAACAACAAGAGCTGGATGGAAAGCGAGTTCGGGTGTACAG
*****
Prim.cons.  GGGCGT2TACTACCACAAGAACAACAAGAGCTGGATGGA2AGCGAGTTCGGGTGTACAG
              550      560      570      580      590      600
              |        |        |        |        |        |
Moderna     CAGCGCCAACAACCTGCACCTTCGAGTACGTGAGCCAGCCCTTCTGATGGACCTGGAGGG
Pfizer      CAGCGCCAACAACCTGCACCTTCGAGTACGTGTCCAGCCTTCTGATGGACCTGGAAGG
*****
Prim.cons.  CAGCGCCAACAACCTGCACCTTCGAGTACGTG22CCAGCC2TCTGATGGACCTGGA2GG
              610      620      630      640      650      660
              |        |        |        |        |        |
Moderna     CAAGCAGGGCAACTTCAAGAACCTGCGGGAGTTCGTGTTCAAGAACATCGACGGCTACTT
Pfizer      CAAGCAGGGCAACTTCAAGAACCTGCGCGAGTTCGTGTTTAAAGAACATCGACGGCTACTT
*****
Prim.cons.  CAAGCAGGGCAACTTCAAGAACCTGCG2GAGTTCGTGTT2AAGAACATCGACGGCTACTT
              670      680      690      700      710      720
              |        |        |        |        |        |
Moderna     CAAGATCTACAGCAAGCACACCCCAATCAACCTGGTGCGGGATCTGCCCCAGGGCTTCTC
Pfizer      CAAGATCTACAGCAAGCACACCCCTATCAACCTCGTGCGGGATCTGCCTCAGGGCTTCTC
*****
Prim.cons.  CAAGATCTACAGCAAGCACACCC2ATCAACCT2GTGCGGGATCTGCC2CAGGGCTTCTC
              730      740      750      760      770      780
              |        |        |        |        |        |
Moderna     AGCCCTGGAGCCCCTGGTGGACCTGCCCATCGGCATCAACATCACCCGTTCCAGACCCT
Pfizer      TGCTCTGGAACCCCTGGTGGATCTGCCCATCGGCATCAACATCACCCGTTTCAGACACT
*****
Prim.cons.  2GC2CTGGA2CCCCTGGTGA2CTGCCCATCGGCATCAACATCACCCGTT2CAGAC2CT
              790      800      810      820      830      840
              |        |        |        |        |        |
Moderna     GCTGGCCCTGCACCGGAGCTACCTGACCCAGGCGACAGCAGCAGCGGGTGGACAGCAGG
Pfizer      GCTGGCCCTGCACAGAAGCTACCTGACACCTGGCGATAGCAGCAGCGGATGGACAGCTGG
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Prim.cons.  GCTGGCCCTGCAC2G2AGCTACCTGAC2CC2GGCGA2AGCAGCAGCGG2TGGACAGC2GG

                850      860      870      880      890      900
                |        |        |        |        |        |
Moderna     CGCGGCTGCTTACTACGTGGGCTACCTGCAGCCCCGGACCTTCTGCTGAAGTACAACGA
Pfizer      TGCCGCCGCTTACTATGTGGGCTACCTGCAGCCTAGAACCTTCTGCTGAAGTACAACGA
            ** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  2GC2GC2GCTTACTA2GTGGGCTACCTGCAGCC22G2ACCTTCTGCTGAAGTACAACGA

                910      920      930      940      950      960
                |        |        |        |        |        |
Moderna     GAACGGCACCATCACCGACGCCGTGGACTGCGCCCTGGACCCTCTGAGCGAGACCAAGTG
Pfizer      GAACGGCACCATCACCGACGCCGTGGATTGTGCTCTGGATCCTCTGAGCGAGACAAAGTG
            ***** ** * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  GAACGGCACCATCACCGACGCCGTGGA2TG2GC2CTGGA2CCTCTGAGCGAGAC2AAGTG

                970      980      990      1000     1010     1020
                |        |        |        |        |        |
Moderna     CACCCTGAAGAGCTTCACCGTGGAGAAGGGCATCTACCAGACCAGCAACTTCCGGGTGCA
Pfizer      CACCCTGAAGTCTTCACCGTGGAAAAGGGCATCTACCAGACCAGCAACTTCCGGGTGCA
            ***** * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  CACCCTGAAG22CTTCACCGTGGAAAGGGCATCTACCAGACCAGCAACTTCCGGGTGCA

                1030     1040     1050     1060     1070     1080
                |        |        |        |        |        |
Moderna     GCCCACCAGAGCATCGTGCGGTTCCCAACATCACCAACCTGTGCCCTTTCGGCGAGGT
Pfizer      GCCCACCGAATCCATCGTGCGGTTCCCAATATCACCAATCTGTGCCCTTTCGGCGAGGT
            ***** * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  GCCCACCGA222CATCGTGCGGTTCCCAA2ATCACCA2CTGTGCCCTTTCGGCGAGGT

                1090     1100     1110     1120     1130     1140
                |        |        |        |        |        |
Moderna     GTTCAACGCCACCCGTTTCGCCAGCGTGTACGCCTGGAACCGGAAGCGGATCAGCAACTG
Pfizer      GTTCAATGCCACCAGATTGCCTCTGTGTACGCCTGGAACCGGAAGCGGATCAGCAATTG
            ***** * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  GTTCAA2GCCACC2G2TTCGCC222GTGTACGCCTGGAACCGGAAGCGGATCAGCAA2TG

                1150     1160     1170     1180     1190     1200
                |        |        |        |        |        |
Moderna     CGTGGCCGACTACAGCGTGTGTACAACAGCGCCAGCTTACGACCTTCAAGTGCTACGG
Pfizer      CGTGGCCGACTACTCCGTGTGTACAACCCGCCAGCTTACGACCTTCAAGTGCTACGG
            ***** * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  CGTGGCCGACTAC22CGTGTGTACAAC22CGCCAGCTTACGACCTTCAAGTGCTACGG

                1210     1220     1230     1240     1250     1260
                |        |        |        |        |        |
Moderna     CGTGAGCCCCACCAAGCTGAACGACCTGTGCTTACCAACGTGTACGCCGACAGCTTCGT
Pfizer      CGTGTCCCCTACCAAGCTGAACGACCTGTGCTTACAAACGTGTACGCCGACAGCTTCGT
            **** * * * * * * * * * * * * * * * * * * * * * * * * * * *
    
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Prim.cons.  CGTG22CCC2ACCAAGCTGAACGACCTGTGCTTAC2AACGTGTACGCCGACAGCTTCGT
              1270      1280      1290      1300      1310      1320
              |          |          |          |          |          |
Moderna     GATCCGTGGCGACGAGGTGCGGCAGATCGCACCCGGCCAGACAGGCAAGATCGCCGACTA
Pfizer      GATCCGGGGAGATGAAGTGCAGGAGATTGCCCTGGACAGACAGGCAAGATCGCCGACTA
***** ** * * * ***** ** * * * *****
Prim.cons.  GATCCG2GG2GA2GA2GTGCGGCAGAT2GC2CC2GG2CAGACAGGCAAGATCGCCGACTA
              1330      1340      1350      1360      1370      1380
              |          |          |          |          |          |
Moderna     CAACTACAAGCTGCCCGACGACTTCACCGGCTGCGTGATCGCCTGGAACAGCAACAACCT
Pfizer      CAACTACAAGCTGCCCGACGACTTCACCGGCTGTGTGATTGCCTGGAACAGCAACAACCT
*****
Prim.cons.  CAACTACAAGCTGCCCGACGACTTCACCGGCTG2GTGAT2GCCTGGAACAGCAACAACCT
              1390      1400      1410      1420      1430      1440
              |          |          |          |          |          |
Moderna     CGACAGCAAGGTGGGCGGCAACTACAACCTGTACCGGCTGTTCCGGAAGAGCAACCT
Pfizer      GGACTCCAAAGTCGGCGGCAACTACAATTACCTGTACCGGCTGTTCCGGAAGTCCAATCT
*** ** * ***** ***** ** *
Prim.cons.  2GAC22CAA2GT2GGCGGCAACTACAA2TACCTGTACCGGCTGTTCCGGAAG22CAA2CT
              1450      1460      1470      1480      1490      1500
              |          |          |          |          |          |
Moderna     GAAGCCCTTCGAGCGGGACATCAGCACCGAGATCTACCAAGCCGGCTCCACCCCTTGCAA
Pfizer      GAAGCCCTTCGAGCGGGACATCTCCACCGAGATCTATCAGGCCGGCAGCACCCCTTGTA
***** ***** ** ***** ***** **
Prim.cons.  GAAGCCCTTCGAGCGGGACATC22CACCGAGATCTA2CA2GCCGGC22CACCCCTTG2AA
              1510      1520      1530      1540      1550      1560
              |          |          |          |          |          |
Moderna     CGGCGTGAGGGCTTCAACTGCTACTTCCCCTGCGAGACTACGGCTTCCAGCCACCAA
Pfizer      CGGCGTGAAGGCTTCAACTGCTACTTCCCACTGCAGTCTACGGCTTTCAGCCACAAA
***** ***** ***** ***** ***** **
Prim.cons.  CGGCGTGA2GGCTTCAACTGCTACTTCCC2CTGCAG22CTACGGCTT2CAGCCAC2AA
              1570      1580      1590      1600      1610      1620
              |          |          |          |          |          |
Moderna     CGGCGTGGGCTACCAGCCCTACCGGGTGGTGGTGCTGAGCTTCGAGCTGCTGCACGCCCC
Pfizer      TGGCGTGGGCTATCAGCCCTACAGAGTGGTGGTGCTGAGCTTCGAACTGCTGCATGCCCC
***** ***** * ***** ***** *****
Prim.cons.  2GGCGTGGGCTA2CAGCCCTAC2G2GTGGTGGTGCTGAGCTTCGA2CTGCTGCA2GCCCC
              1630      1640      1650      1660      1670      1680
              |          |          |          |          |          |
Moderna     AGCCACCGTGTGTGGCCCAAGAAGAGCACCAACCTGGTGAAGAACAAGTGCGTGAACTT
Pfizer      TGCCACAGTGTGCGGCCCTAAGAAAAGCACCAATCTCGTGAAGAACAATGCGTGAACTT
***** ***** ***** ***** ***** ** ***** *****

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Prim.cons.  2GCCAC2GTGTG2GGCCC2AAGAA2AGCACCAA2CT2GTGAAGAACAA2TGCCTGAACTT
              1690      1700      1710      1720      1730      1740
              |        |        |        |        |        |
Moderna    CAACTTCAACGGCCTTACCGGCACCGGCGTGCTGACCGAGAGCAACAAGAAATTCCTGCC
Pfizer     CAACTTCAACGGCCTGACCGGCACCGGCGTGCTGACAGAGAGCAACAAGAAGTTCCTGCC
*****
Prim.cons.  CAACTTCAACGGCCT2ACCGGCACCGGCGTGCTGAC2GAGAGCAACAAGAA2TTCCTGCC
              1750      1760      1770      1780      1790      1800
              |        |        |        |        |        |
Moderna    CTTTCAGCAGTTCGGCCGGGACATCGCCGACACCACCGACGCTGTGCGGGATCCCCAGAC
Pfizer     ATTCCAGCAGTTTGCCGGGATATCGCCGATACCACAGACGCCGTTAGAGATCCCCAGAC
** *****
Prim.cons.  2TT2CAGCAGTT2GGCCGGGA2ATCGCCGA2ACCAC2GACGC2GT22G2GATCCCCAGAC
              1810      1820      1830      1840      1850      1860
              |        |        |        |        |        |
Moderna    CCTGGAGATCCTGGACATCACCCCTTGCAGCTTCGGCGGCCTGAGCGTGATCACCCAGG
Pfizer     ACTGGAATCCTGGACATCACCCCTTGCAGCTTCGGCGGAGTGTCTGTGATCACCCCTGG
*****
Prim.cons.  2CTGGA2ATCCTGGACATCACCCCTTGCAGCTTCGGCGG2GTG222GTGATCACCC2GG
              1870      1880      1890      1900      1910      1920
              |        |        |        |        |        |
Moderna    CACCAACACCAGCAACCAGGTGGCCGTGCTGTACCAGGACGTGAACTGCACCGAGGTGCC
Pfizer     CACCAACACCAGCAATCAGGTGGCAGTGCTGTACCAGGACGTGAACTGTACCGAAGTGCC
*****
Prim.cons.  CACCAACACCAGCAA2CAGGTGGC2GTGCTGTACCAGGACGTGAACTG2ACCGA2GTGCC
              1930      1940      1950      1960      1970      1980
              |        |        |        |        |        |
Moderna    CGTGGCCATCCACGCCGACCAGCTGACACCCACCTGGCGGGTCTACAGCACCGGCAGCAA
Pfizer     CGTGGCCATTCACGCCGATCAGCTGACACCTACATGGCGGGTGTACTCCACCGGCAGCAA
*****
Prim.cons.  CGTGGCCAT2CACGCCGA2CAGCTGACACC2AC2TGGCGGGT2TAC22CACCGGCAGCAA
              1990      2000      2010      2020      2030      2040
              |        |        |        |        |        |
Moderna    CGTGTTCAGACCCGGGCGGTTGCCTGATCGGCGCCGAGCACGTGAACAACAGCTACGA
Pfizer     TGTGTTTCAGACCAGAGCCGGCTGTCTGATCGGAGCCGAGCACGTGAACAATAGCTACGA
*****
Prim.cons.  2GTGTT2CAGACC2G2GCCGG2TG2CTGATCGG2GCCGAGCACGTGAACAA2AGCTACGA
              2050      2060      2070      2080      2090      2100
              |        |        |        |        |        |
Moderna    GTGCGACATCCCATCGGCGCCGGCATCTGTGCCAGCTACCAGACCCAGACCAATTCACC
Pfizer     GTGCGACATCCCATCGGCGCTGGAATCTGCGCCAGCTACCAGACACAGACAAACAGCCC
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Prim.cons.  GTGCGACATCCCCATCGGCGC2GG2ATCTG2GCCAGCTACCAGAC2CAGAC2AA2222CC
              2110      2120      2130      2140      2150      2160
              |          |          |          |          |          |
Moderna     CCGGAGGGCAAGGAGCGTGGCCAGCCAGAGCATCATCGCCTACACCATGAGCCTGGGCGC
Pfizer      TCGGAGAGCCAGAAGCGTGGCCAGCCAGAGCATCATTGCCTACACAATGTCTCTGGGCGC
           ***** ** * ***** ***** ***** *****
Prim.cons.  2CGGAG2GC2AG2AGCGTGGCCAGCCAGAGCATCAT2GCCTACAC2ATG222CTGGGCGC
              2170      2180      2190      2200      2210      2220
              |          |          |          |          |          |
Moderna     CGAGAACAGCGTGGCCTACAGCAACAACAGCATCGCCATCCCCACCAACTTCACCATCAG
Pfizer      CGAGAACAGCGTGGCCTACTCCAACAACCTCTATCGCTATCCCCACCAACTTCACCATCAG
           ***** ***** ***** ***** *****
Prim.cons.  CGAGAACAGCGTGGCCTAC22CAACAAC222ATCGC2ATCCCCACCAACTTCACCATCAG
              2230      2240      2250      2260      2270      2280
              |          |          |          |          |          |
Moderna     CGTGACCACCGAGATTCTGCCCGTGAGCATGACCAAGACCAGCGTGGACTGCACCATGTA
Pfizer      CGTGACCACAGAGATCCTGCCTGTGTCCATGACCAAGACCAGCGTGGACTGCACCATGTA
           ***** ***** ***** ** *****
Prim.cons.  CGTGACCAC2GAGAT2CTGCC2GTG22CATGACCAAGACCAGCGTGGACTGCACCATGTA
              2290      2300      2310      2320      2330      2340
              |          |          |          |          |          |
Moderna     CATCTGCGGCGACAGCACCAGTGCGAGCAACCTGCTGCTGCAGTACGGCAGCTTCTGCAC
Pfizer      CATCTGCGGCGATTCCACCGAGTGCTCCAACCTGCTGCTGCAGTACGGCAGCTTCTGCAC
           ***** ***** ***** ***** *****
Prim.cons.  CATCTGCGGCGA222CACCGAGTGC22CAACCTGCTGCTGCAGTACGGCAGCTTCTGCAC
              2350      2360      2370      2380      2390      2400
              |          |          |          |          |          |
Moderna     CCAGCTGAACCGGGCCCTGACCGGCATCGCCGTGGAGCAGGACAAGAACACCCAGGAGGT
Pfizer      CCAGCTGAATAGAGCCCTGACAGGGATCGCCGTGGAACAGGACAAGAACACCCAAGAGGT
           ***** * ***** ** ***** ***** ***** *****
Prim.cons.  CCAGCTGAA22G2GCCCTGAC2GG2ATCGCCGTGGA2CAGGACAAGAACACCCA2GAGGT
              2410      2420      2430      2440      2450      2460
              |          |          |          |          |          |
Moderna     GTTCGCCCAGGTGAAGCAGATCTACAAGACCCCTCCCATCAAGGACTTCGGCGGCTTCAA
Pfizer      GTTCGCCCAAGTGAAGCAGATCTACAAGACCCCTCCTATCAAGGACTTCGGCGGCTTCAA
           ***** ***** ***** ***** *****
Prim.cons.  GTTCGCCCA2GTGAAGCAGATCTACAAGACCCCTCC2ATCAAGGACTTCGGCGGCTTCAA
              2470      2480      2490      2500      2510      2520
              |          |          |          |          |          |
Moderna     CTTAGCCAGATCCTGCCGACCCAGCAAGCCCAGCAAGCGGAGCTTCATCGAGGACCT
Pfizer      TTTAGCCAGATTCTGCCGATCCTAGCAAGCCCAGCAAGCGGAGCTTCATCGAGGACCT
           ***** ***** ** ***** *****

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Prim.cons.  2TTCAGCCAGAT2CTGCCCGA2CC2AGCAAGCCCAGCAAGCGGAGCTTCATCGAGGACCT
                2530      2540      2550      2560      2570      2580
                |          |          |          |          |          |
Moderna    GCTGTTCAACAAGGTGACCCTAGCCGACGCCGGCTTCATCAAGCAGTACGGCGACTGCCT
Pfizer     GCTGTTCAACAAAGTGACTGCGCGACGCCGGCTTCATCAAGCAGTATGGCGATTGTCT
*****
Prim.cons.  GCTGTTCAACAA2GTGAC2CT2GCCGACGCCGGCTTCATCAAGCAGTA2GGCGA2TG2CT
                2590      2600      2610      2620      2630      2640
                |          |          |          |          |          |
Moderna    CGGCGACATAGCCGCCGGGACCTGATCTGCGCCAGAAGTTCAACGGCCTGACCGTGCT
Pfizer     GGGCGACATTGCCGCCAGGGATCTGATTTGCGCCAGAAGTTTAACGGACTGACAGTGCT
*****
Prim.cons.  2GGCGACAT2GCCGCC2GGGA2CTGAT2TGCGCCAGAAGTT2AACGG2CTGAC2GTGCT
                2650      2660      2670      2680      2690      2700
                |          |          |          |          |          |
Moderna    GCCTCCCCTGCTGACCGACGAGATGATCGCCAGTACACCAGCGCCCTGTTAGCCGGAAC
Pfizer     GCCTCCTCTGCTGACCGATGAGATGATCGCCAGTACACATCTGCCCTGCTGGCCGGCAC
*****
Prim.cons.  GCCTCC2CTGCTGACCGA2GAGATGATCGCCAGTACAC2222GCCCTG2T2GCCGG2AC
                2710      2720      2730      2740      2750      2760
                |          |          |          |          |          |
Moderna    CATCACCAGCGGCTGGACTTTTCGGCGCTGGAGCCGCTCTGCAGATCCCCTTCGCCATGCA
Pfizer     AATACAAGCGGCTGGACATTTGGAGCAGGCGCCGCTCTGCAGATCCCCTTTGCTATGCA
*****
Prim.cons.  2ATCAC2AGCGGCTGGAC2TT2GG2GC2GG2GCCGCTCTGCAGATCCCCTT2GC2ATGCA
                2770      2780      2790      2800      2810      2820
                |          |          |          |          |          |
Moderna    GATGGCCTACCGGTTCAACGGCATCGGCGTGACCCAGAACGTGCTGTACGAGAACCAGAA
Pfizer     GATGGCCTACCGGTTCAACGGCATCGGAGTGACCCAGAATGTGCTGTACGAGAACCAGAA
*****
Prim.cons.  GATGGCCTACCGGTTCAACGGCATCGG2GTGACCCAGAA2GTGCTGTACGAGAACCAGAA
                2830      2840      2850      2860      2870      2880
                |          |          |          |          |          |
Moderna    GCTGATCGCCAACCAGTTCAACAGCGCCATCGGCAAGATCCAGGACAGCCTGAGCAGCAC
Pfizer     GCTGATCGCCAACCAGTTCAACAGCGCCATCGGCAAGATCCAGGACAGCCTGAGCAGCAC
*****
Prim.cons.  GCTGATCGCCAACCAGTTCAACAGCGCCATCGGCAAGATCCAGGACAGCCTGAGCAGCAC
                2890      2900      2910      2920      2930      2940
                |          |          |          |          |          |
Moderna    CGCTAGCGCCCTGGGCAAGCTGCAGGACGTGGTGAACCAGAACGCCAGGCCCTGAACAC
Pfizer     AGCAAGCGCCCTGGGAAAGCTGCAGGACGTGGTGAACCAGAATGCCAGGCACTGAACAC
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Prim.cons.  2GC2AGCGCCCTGGG2AAGCTGCAGGACGTGGT2AACCAGAA2GCCAGGC2CTGAACAC
            2950      2960      2970      2980      2990      3000
            |        |        |        |        |        |
Moderna    CCTGGTGAAGCAGCTGAGCAGCAACTTCGGCGCCATCAGCAGCGTGCTGAACGACATCCT
Pfizer     CCTGGTCAAGCAGCTGTCTCCAACTTCGGCGCCATCAGCTCTGTGCTGAACGATATCCT
***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  CCTGGT2AAGCAGCTG22C2CAACTTCGGCGCCATCAGC22GTGCTGAACGA2ATCCT
            3010      3020      3030      3040      3050      3060
            |        |        |        |        |        |
Moderna    GAGCCGGCTGGACCCTCCCAGGCCGAGGTGCAGATCGACCGGCTGATCACTGGCCGGCT
Pfizer     GAGCAGACTGGACCCTCCTGAGGCCGAGGTGCAGATCGACAGACTGATCACAGGCAGACT
**** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  GAGC2G2CTGGACCCTCC2GAGGCCGAGGTGCAGATCGAC2G2CTGATCAC2GGC2G2CT
            3070      3080      3090      3100      3110      3120
            |        |        |        |        |        |
Moderna    GCAGAGCCTGCAGACCTACGTGACCCAGCAGCTGATCCGGGCCGCCGAGATTCGGGCCAG
Pfizer     GCAGAGCCTCCAGACATACGTGACCCAGCAGCTGATCAGAGCCGCCGAGATTAGAGCCTC
***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  GCAGAGCCT2CAGAC2TACGTGACCCAGCAGCTGATC2G2GCCGCCGAGATT2G2GCC22
            3130      3140      3150      3160      3170      3180
            |        |        |        |        |        |
Moderna    CGCCAACCTGGCCGCCACCAAGATGAGCGAGTGCGTGCTGGGCCAGAGCAAGCGGTGGA
Pfizer     TGCCAATCTGGCCGCCACCAAGATGTCTGAGTGTGTGCTGGGCCAGAGCAAGAGAGTGGA
***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  2GCCAA2CTGGCCGCCACCAAGATG222GAGTG2GTGCTGGGCCAGAGCAAG2G2TGGA
            3190      3200      3210      3220      3230      3240
            |        |        |        |        |        |
Moderna    CTTCTGCGGCAAGGGCTACCACCTGATGAGCTTTCCCAGAGCGCACCCCACGGAGTGGT
Pfizer     CTTTTGCGGCAAGGGCTACCACCTGATGAGCTTCCCTCAGTCTGCCCTCACGGCTGGT
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  CTT2TGCGGCAAGGGCTACCACCTGATGAGCTT2CC2CAG222GC2CC2CACGG2GTGGT
            3250      3260      3270      3280      3290      3300
            |        |        |        |        |        |
Moderna    GTTCCTGCACGTGACCTACGTGCCCGCCAGGAGAAGAATTCACCACCGCCCCAGCCAT
Pfizer     GTTTCTGCACGTGACATATGTGCCCGCTCAAGAGAAGAATTCACCACCGCTCCAGCCAT
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Prim.cons.  GTT2CTGCACGTGAC2TA2GTGCCGC2CA2GAGAAGAA2TTCACCACCGC2CCAGCCAT
            3310      3320      3330      3340      3350      3360
            |        |        |        |        |        |
Moderna    CTGCCACGACGGCAAGGCCACTTTCCCAGGGAGGGCGTGTTCTGTGAGCAACGGCACCCA
Pfizer     CTGCCACGACGGCAAAGGCCACTTTCTAGAGAAGGGCGTGTTCTGTCCAACGGCACCCA
***** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
    
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Prim.cons.  CTGCCACGACGGCAA2GCCCACTTTCC22G2GA2GGCGTGTTCTGTG22CAACGGCACCCA
              3370      3380      3390      3400      3410      3420
              |          |          |          |          |          |
Moderna     CTGGTTCGTGACCCAGCGGAACTTCTACGAGCCCCAGATCATCACCACCGACAACACCTT
Pfizer      TTGGTTCGTGACACAGCGGAACTTCTACGAGCCCCAGATCATCACCACCGACAACACCTT
*****
Prim.cons.  2TGGTTCGTGAC2CAGCGGAACTTCTACGAGCCCCAGATCATCACCACCGACAACACCTT
              3430      3440      3450      3460      3470      3480
              |          |          |          |          |          |
Moderna     CGTGAGCGGCAACTGCGACGTGGTGATCGGCATCGTGAACAACACCGTGTACGATCCCCT
Pfizer      CGTGTCTGGCAACTGCGACGTCTGTGATCGGCATTGTGAACAATACCGTGTACGACCCTCT
****
Prim.cons.  CGTG222GGCAACTGCGACGT2GTGATCGGCAT2GTGAACAA2ACCGTGTACGA2CC2CT
              3490      3500      3510      3520      3530      3540
              |          |          |          |          |          |
Moderna     GCAGCCCAGCTGGACAGCTTCAAAGGAGGAGCTGGACAAGTACTTCAAGAATCACACCAG
Pfizer      GCAGCCCAGCTGGACAGCTTCAAAGAGGAACTGGACAAGTACTTTAAGAACCACACAAG
*****
Prim.cons.  GCAGCCCAGCTGGACAGCTTCAA2GAGGA2CTGGACAAGTACTT2AAGAA2CACAC2AG
              3550      3560      3570      3580      3590      3600
              |          |          |          |          |          |
Moderna     CCCCAGCTGGACCTGGGCGACATCAGCGGCATCAACGCCAGCGTGGTGAACATCCAGAA
Pfizer      CCCCAGCTGGACCTGGGCGATATCAGCGGAATCAATGCCAGCGTCTGTGAACATCCAGAA
*****
Prim.cons.  CCCCAGCTGGACCTGGGCGA2ATCAGCGG2ATCAA2GCCAGCGT2GTGAACATCCAGAA
              3610      3620      3630      3640      3650      3660
              |          |          |          |          |          |
Moderna     GGAGATCGATCGGCTGAACGAGGTGGCCAAGAACCTGAACGAGAGCCTGATCGACCTGCA
Pfizer      AGAGATCGACCGGCTGAACGAGGTGGCCAAGAACTCTGAACGAGAGCCTGATCGACCTGCA
*****
Prim.cons.  2GAGATCGA2CGGCTGAACGAGGTGGCCAAGAA2CTGAACGAGAGCCTGATCGACCTGCA
              3670      3680      3690      3700      3710      3720
              |          |          |          |          |          |
Moderna     GGAGCTGGGCAAGTACGAGCAGTACATCAAGTGGCCCTGGTACATCTGGCTGGGCTTCAT
Pfizer      AGAACTGGGGAAGTACGAGCAGTACATCAAGTGGCCCTGGTACATCTGGCTGGGCTTTAT
**
Prim.cons.  2GA2CTGGG2AAGTACGAGCAGTACATCAAGTGGCCCTGGTACATCTGGCTGGGCTT2AT
              3730      3740      3750      3760      3770      3780
              |          |          |          |          |          |
Moderna     CGCCGGCCTGATGCCATCGTGATGGTGACCATCATGCTGTGCTGCATGACCAGCTGCTG
Pfizer      CGCCGGACTGATTGCCATCGTGATGGTCAATCATGCTGTGTTGCATGACCAGCTGCTG
*****

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Prim.cons.  CGCCGG2CTGAT2GCCATCGTGATGGT2AC2ATCATGCTGTG2TGCATGACCAGCTGCTG
              3790      3800      3810      3820      3830      3840
              |          |          |          |          |          |
Moderna     CAGCTGCCTGAAGGGCTGTTGCAGCTGCGGCAGCTGCTGCAAGTTCGACGAGGACGACAG
Pfizer      TAGCTGCCTGAAGGGCTGTTGTAGCTGTGGCAGCTGCTGCAAGTTCGACGAGGACGATT
              *****
Prim.cons.  2AGCTGCCTGAAGGGCTGTTG2AGCTG2GGCAGCTGCTGCAAGTTCGACGAGGACGA222
              3850      3860      3870      3880      3890      3900
              |          |          |          |          |          |
Moderna     CGAGCCCGTGCTGAAGGGCGTGAAGCTGCACTACACCTGATAAT - -AGGCTGGAGCCTCG
Pfizer      TGAGCCCGTGCTGAAGGGCGTGAAGCTGCACTACACATGATGACTCGAGCTGGTACTGCA
              *****
Prim.cons.  2GAGCCCGTGCTGAAGGGCGTGA2CTGCACTACAC2TGAT2A2TC22GCTGG22C22C2
              3910      3920      3930      3940      3950      3960
              |          |          |          |          |          |
Moderna     GTGGCCTA - -GCTTCTTGCCCTT - - - - - - - - - - - - - - - - - -GGGCCTCCCCCAGC - - -
Pfizer      TGCACGCAATGCTAGCTGCCCTTTCCCGTCTGGGTACCCCGAGTCTCCCCGACCTCG
              * * *** ***** * * * * * * * * * * * * * * * *
Prim.cons.  2222C22AATGCT222TGCCCTTTCCCGTCTGGGTACCCCG2G2CTCCCC2A2CTCG
              3970      3980      3990      4000      4010      4020
              |          |          |          |          |          |
Moderna     - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Pfizer      GGTCCCAGGTATGCTCCCACCTCCACCTGCCCACTCACCACCTCTGCTAGTTCCAGACA
              *** ***** * * * * * * * * * * * * * * * *
Prim.cons.  GGTCCCAGGTATGCTCCC2CTCC2C2T2C22CAC2C22CACC2C2G22222T2222A2A
              4030      4040      4050      4060      4070      4080
              |          |          |          |          |          |
Moderna     AAGTCTGAGTGGGCGGCAAAAAAAAAA - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Pfizer      CCTCCAAGCACGCAGCAATGCAGCTCAAACGCTTAGCCTAGCCACACCCCCACGGGAA
              * * * * * * * * * * * * * * * *
Prim.cons.  2222C22AG222GC2GCAA222A222CAAACGCTTAGCCTAGCCACACCCCCACGGGAA
              4090      4100      4110      4120      4130      4140
              |          |          |          |          |          |
Moderna     - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Pfizer      ACAGCAGTGATTAACCTTTAGCAATAAACGAAAGTTTAACTAAGCTATACTAACCCACAGG
Prim.cons.  ACAGCAGTGATTAACCTTTAGCAATAAACGAAAGTTTAACTAAGCTATACTAACCCACAGG
              4150      4160      4170
              |          |          |
Moderna     - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Pfizer      GTTGGTCAATTTTCGTGCCAGCCACACCCTGGAGCTAGCA
    
```

Prim.cons. GTTGGTCAATTTTCGTGCCAGCCACACCCTGGAGCTAGCA

Alignment data :

Alignment length : 4179

Identity (*) : 3549 is 84.92 %

Strongly similar (:): 0 is 0.00 %

Weakly similar (.) : 0 is 0.00 %

Different : 630 is 15.08 %

Sequence 0001 : Moderna (4004 residues).

Sequence 0002 : Pfizer (4175 residues).

CLUSTALW options used :

dnamatrix=iub

endgaps=1

gapdist=8

gapext=6.6666667

gapopen=15.000000000

ktuple=2

maxdiv=40

outorder=aligned

pairgap=5

score=percent

topdiags=4

type=DNA

window=4

Result files (text) :

CLUSTALW (/tmp/29ff7b84cee7.clustalw)

User : public@139.127.179.166. **Last modification time :** Sat May 8 22:59:22 2021. **Current time :** Sat May 8 22:59:22 2021



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