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                        10        20        30        40        50        60        70        80        90       100       110
                        |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                        CGCCGAAACAAGCGCTCATGAGCCCGAAGTGGCGAGCCCGATCTTCCCCATCGGTGATGTCGGCGATATAGGCGCCAGCAACCGCACCTGTGGCGCCGGTGATGCCGGCC

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   CGCCGAAACAAGCGCTCATGAGCCCGAAGTGGCGAGCCCGATCTTCCCCATCGGTGATGTCGGCGATATAGGCGCCAGCAACCGCACCTGTGGCGCCGGTGATGCCGGCC

                       120       130       140       150       160       170       180       190       200       210       220
                        |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                        ACGATGCGTCCGGCGTAGAGGATCGAGATCTCGATCCCGCGAAATTAATACGACTCACTATAGGGAGACCACAACGGTTTCCCTCTAGACCTGACCAGGGTTCCGTGCAA

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   ACGATGCGTCCGGCGTAGAGGATCGAGATCTCGATCCCGCGAAATTAATACGACTCACTATAGGGAGACCACAACGGTTTCCCTCTAGACCTGACCAGGGTTCCGTGCAA
U499UHE170-2.seq(1>4036)                       →                                                              TCTAGACCTGACCAGGGTTCCGTGCAA
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←                                                                     GACCAGGGTTCCGTGCAA

                       230       240       250       260       270       280       290       300       310       320       330
                        |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                        AAGCTCATTCGAGCCTCCTGCCTAAGCGCGCCTCAGTCCTCTGAGGTTCGTATGGTATACGTGCGCTGATTTATCGTCAGTAATCGTAGTGTCTTCTATAGGTTATAACC

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   AAGCTCATTCGAGCCTCCTGCCTAAGCGCGCCTCAGTCCTCTGAGGTTCGTATGGTATACGTGCGCTGATTTATCGTCAGTAATCGTAGTGTCTTCTATAGGTTATAACC
U499UHE170-2.seq(1>4036)                       →   AAGCTCATTCGAGCCTCCTGCCTAAGCGCGCCTCAGTCCTCTGAGGTTCGTATGGTATACGTGCGCTGATTTATCGTCAGTAATCGTAGTGTCTTCTATAGGTTATAACC
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←   AAGCTCATTCGAGCCTCCTGCCTAAGCGCGCCTCAGTCCTCTGAGGTTCGTATGGTATACGTGCGCTGATTTATCGTCAGTAATCGTAGTGTCTTCTATAGGTTATAACC

                       340       350       360       370       380       390       400       410       420       430       440
                        |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                        ATCATGAAAATCTCCCGCATAGTCAACGTCGCCTTGAGTCTCTTCCGTCGGAAGAAGCAACCACACCCTCTAACCGGGGTTCAGTGGGAGCTTTTGCCGTACAGATTCGA

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   ATCATGAAAATCTCCCGCATAGTCAACGTCGCCTTGAGTCTCTTCCGTCGGAAGAAGCAACCACACCCTCTAACCGGGGTTCAGTGGGAGCTTTTGCCGTACAGATTCGA
U499UHE170-2.seq(1>4036)                       →   ATCATGAAAATCTCCCGCATAGTCAACGTCGCCTTGAGTCTCTTCCGTCGGAAGAAGCAACCACACCCTCTAACCGGGGTTCAGTGGGAGCTTTTGCCGTACAGATTCGA
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←   ATCATGAAAATCTCCCGCATAGTCAACGTCGCCTTGAGTCTCTTCCGTCGGAAGAAGCAACCACACCCTCTAACCGGGGTTCAGTGGGAGCTTTTGCCGTACAGATTCGA

                       450       460       470       480       490       500       510       520       530       540       550
                        |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                        GATCGATTGGTGCGTGGACGCCAGCGGGGAACTAATGGTGGTTCGAGAGACTGTTCATCTCTCTGGCAATGCCGTGAGGCAAAGCTTGACCTACAGGAGGAACCGGTAGT

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   GATCGATTGGTGCGTGGACGCCAGCGGGGAACTAATGGTGGTTCGAGAGACTGTTCATCTCTCTGGCAATGCCGTGAGGCAAAGCTTGACCTACAGGAGGAACCGGTAGT
U499UHE170-2.seq(1>4036)                       →   GATCGATTGGTGCGTGGACGCCAGCGGGGAACTAATGGTGGTTCGAGAGACTGTTCATCTCTCTGGCAATGCCGTGAGGCAAAGCTTGACCTACAGGAGGAACCGGTAGT
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←   GATCGATTGGTGCGTGGACGCCAGCGGGGAACTAATGGTGGTTCGAGAGACTGTTCATCTCTCTGGCAATGCCGTGAGGCAAAGCTTGACCTACAGGAGGAACCGGTAGT

                       560       570       580       590       600       610       620       630       640       650       660
                        |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                        GGCTACCAGTCCGGTAACTAAGACTAAGCAGGCGTCAGCAATGACATCTGCATCCGGGTTCACGGCAGCGTGGACTCGGTTGGTCGCATTCGGACCTCTGGTGCTCCAAA

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   GGCTACCAGTCCGGTAACTAAGACTAAGCAGGCGTCAGCAATGACATCTGCATCCGGGTTCACGGCAGCGTGGACTCGGTTGGTCGCATTCGGACCTCTGGTGCTCCAAA
U499UHE170-2.seq(1>4036)                       →   GGCTACCAGTCCGGTAACTAAGACTAAGCAGGCGTCAGCAATGACATCTGCATCCGGGTTCACGGCAGCGTGGACTCGGTTGGTCGCATTCGGACCTCTGGTGCTCCAAA
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←   GGCTACCAGTCCGGTAACTAAGACTAAGCAGGCGTCAGCAATGACATCTGCATCCGGGTTCACGGCAGCGTGGACTCGGTTGGTCGCATTCGGACCTCTGGTGCTCCAAA

                       670       680       690       700       710       720       730       740       750       760       770
                        |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                        CAACACCATATCAAGCTAATGTTAGTGTAAAAACTTTCCAGCTGGATGTGACTAGTACGAGTACTAAGCCGTGGCCTTTGGGCCATCCCACTGAATGGACACCACATCAA

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   CAACACCATATCAAGCTAATGTTAGTGTAAAAACTTTCCAGCTGGATGTGACTAGTACGAGTACTAAGCCGTGGCCTTTGGGCCATCCCACTGAATGGACACCACATCAA
U499UHE170-2.seq(1>4036)                       →   CAACACCATATCAAGCTAATGTTAGTGTAAAAACTTTCCAGCTGGATGTGACTAGTACGAGTACTAAGCCGTGGCCTTTGGGCCATCCCACTGAATGGACACCACATCAA
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←   CAACACCATATCAAGCTAATGTTAGTGTAAAAACTTTCCAGCTGGATGTGACTAGTACGAGTACTAAGCCGTGGCCTTTGGGCCATCCCACTGAATGGACACCACATCAA
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                    780       790       800       810       820       830       840       850       860       870       880
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    CGTGTGTGGTATAACCGGATCGGTGGCGAAGGGAGCGCGACAATTCAAGCTCTCAACGCGGAGGGGACCAAGTACGTTCGTCAGTTCGTACAAGGTTCAATGGAAGCAGC

E07-R118223-U499UHE170-2-2-SEQ7R.ab1(1>771)   ←   C
U499UHE170-2.seq(1>4036)                      →   CGTGTGTGGTATAACCGGATCGGTGGCGAAGGGAGCGCGACAATTCAAGCTCTCAACGCGGAGGGGACCAAGTACGTTCGTCAGTTCGTACAAGGTTCAATGGAAGCAGC
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←   CGTGTGTGGTATAACCGGATCGGTGGCGAAGGGAGCGCGACAATTCAAGCTCTCAACGCGGAGGGGACCAAGTACGTTCGTCAGTTCGTACAAGGTTCAATGGAAGCAGC
E05-R118223-U499UHE170-2-2-SEQ5R.ab1(1>686)   ←                                                      ACGTTCGTCAGTTCGTACAAGGTTCAATGGAAGCAGC

                    890       900       910       920       930       940       950       960       970       980       990
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    CTGCTCCTTGCCGCAAGGCACGGAGTGGGGTCTCCATAAGGTCCCTCTGGACCCCGGTACAGCGGCGGTTTCCGCCAAGCTGCGTGGTAAGTTGAAAGACGATTTCAACG

U499UHE170-2.seq(1>4036)                      →   CTGCTCCTTGCCGCAAGGCACGGAGTGGGGTCTCCATAAGGTCCCTCTGGACCCCGGTACAGCGGCGGTTTCCGCCAAGCTGCGTGGTAAGTTGAAAGACGATTTCAACG
E06-R118223-U499UHE170-2-2-SEQ6R.ab1(1>720)   ←   CTGCTCCTTGCCGCAAGGCACGGAGTGGGGTCTCCATAAGGT
E05-R118223-U499UHE170-2-2-SEQ5R.ab1(1>686)   ←   CTGCTCCTTGCCGCAAGGCACGGAGTGGGGTCTCCATAAGGTCCCTCTGGACCCCGGTACAGCGGCGGTTTCCGCCAAGCTGCGTGGTAAGTTGAAAGACGATTTCAACG

                    1000      1010      1020      1030      1040      1050      1060      1070      1080      1090      1100
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    CAGCAGTTGCCCTAGCCGAACTAAACAAGACCGTTGATCTCATCGCCTCAACAGCGAGAAAGATCGGCCAAGCCTTGTTGGCTGTCAAATCGGGCAACACCAAGAGAGCT

U499UHE170-2.seq(1>4036)                      →   CAGCAGTTGCCCTAGCCGAACTAAACAAGACCGTTGATCTCATCGCCTCAACAGCGAGAAAGATCGGCCAAGCCTTGTTGGCTGTCAAATCGGGCAACACCAAGAGAGCT
E05-R118223-U499UHE170-2-2-SEQ5R.ab1(1>686)   ←   CAGCAGTTGCCCTAGCCGAACTAAACAAGACCGTTGATCTCATCGCCTCAACAGCGAGAAAGATCGGCCAAGCCTTGTTGGCTGTCAAATCGGGCAACACCAAGAGAGCT

                    1110      1120      1130      1140      1150      1160      1170      1180      1190      1200      1210
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    CTTGAGCTCCTTGGGAATCCTAAGCTTAAGAAACTGAGCTATAAGGATGAGTCAGCTATCCGTCGTAGGCATCGGACCAAACGCGAGCGGGAAACCGCAAGCAAATGGCT

U499UHE170-2.seq(1>4036)                      →   CTTGAGCTCCTTGGGAATCCTAAGCTTAAGAAACTGAGCTATAAGGATGAGTCAGCTATCCGTCGTAGGCATCGGACCAAACGCGAGCGGGAAACCGCAAGCAAATGGCT
E05-R118223-U499UHE170-2-2-SEQ5R.ab1(1>686)   ←   CTTGAGCTCCTTGGGAATCCTAAGCTTAAGAAACTGAGCTATAAGGATGAGTCAGCTATCCGTCGTAGGCATCGGACCAAACGCGAGCGGGAAACCGCAAGCAAATGGCT

                    1220      1230      1240      1250      1260      1270      1280      1290      1300      1310      1320
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    GGAGCTTCAGTACGGGTGGATGCCGTTGTATAACGACGTGTATAACGCCGTTGAATATGCTACTAAAAAGAGTCCGCCTGGTAATCCCATCGTGAGATGCGGTGTATCTA

U499UHE170-2.seq(1>4036)                      →   GGAGCTTCAGTACGGGTGGATGCCGTTGTATAACGACGTGTATAACGCCGTTGAATATGCTACTAAAAAGAGTCCGCCTGGTAATCCCATCGTGAGATGCGGTGTATCTA
E05-R118223-U499UHE170-2-2-SEQ5R.ab1(1>686)   ←   GGAGCTTCAGTACGGGTGGATGCCGTTGTATAACGACGTGTATAACGCCGTTGAATATGCTACTAAAAAGAGTCCGCCTGGTAATCCCATCGTGAGATGCGGTGTATCTA

                    1330      1340      1350      1360      1370      1380      1390      1400      1410      1420      1430
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    GTGTGGTCAGTAGCGACAACGTTTTTCCATGGTCAGGAAATCCCTTCGAGATTTCTATGACGCAACGCTATATCCTTTCGGGTAAAGTGGGGCGCAGGATGGTCGTCGAA

U499UHE170-2.seq(1>4036)                      →   GTGTGGTCAGTAGCGACAACGTTTTTCCATGGTCAGGAAATCCCTTCGAGATTTCTATGACGCAACGCTATATCCTTTCGGGTAAAGTGGGGCGCAGGATGGTCGTCGAA
E05-R118223-U499UHE170-2-2-SEQ5R.ab1(1>686)   ←   GTGTGGTCAGTAGCGACAACGTTTTTCCATGGTCAGGAAATCCCTTCGAGATTTCTATGACGCAACGCTATATCCTTTCGGGTAAAGTGGGGCGCAGGATGGTCGTCGAA

                    1440      1450      1460      1470      1480      1490      1500      1510      1520      1530      1540
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    TACCAAATCGACAGTGCTTACCTGAACCGTGTGTCAAATGTAGGTCTTACCAATCCACTGGTCGTGGCTTGGGAGCTTGTGCCTTTCAGCTTCGTTGTAGACTGGTTCCT

U499UHE170-2.seq(1>4036)                      →   TACCAAATCGACAGTGCTTACCTGAACCGTGTGTCAAATGTAGGTCTTACCAATCCACTGGTCGTGGCTTGGGAGCTTGTGCCTTTCAGCTTCGTTGTAGACTGGTTCCT
E05-R118223-U499UHE170-2-2-SEQ5R.ab1(1>686)   ←   TACCAAATCGACAGTGCTTACCTGAACCGTGTGTCAAATGTAGGTCTTACCAATCCACTGGTCGTGGCTTGGGAGCTTGTGCCTTTCAGCTTCGTTGTA
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←                             GTGTGTCAAATGTAGGTCTTACCAATCCACTGGTCGTGGCTTGGGAGCTTGTGCCTTTCAGCTTCGTTGTAGACTGGTTCCT

                    1550      1560      1570      1580      1590      1600      1610      1620      1630      1640      1650
                    |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|
                    TCCTCTTGGGGACTGGTTAAACGGGTTGGACGCGACGATGGGACTGACCTTTGTAAAAGGGTCTTCAACGTTCTATTATCAAGTCCAACAAAAGGTAGAGTTTGCTGCTC

U499UHE170-2.seq(1>4036)                      →   TCCTCTTGGGGACTGGTTAAACGGGTTGGACGCGACGATGGGACTGACCTTTGTAAAAGGGTCTTCAACGTTCTATTATCAAGTCCAACAAAAGGTAGAGTTTGCTGCTC
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←   TCCTCTTGGGGACTGGTTAAACGGGTTGGACGCGACGATGGGACTGACCTTTGTAAAAGGGTCTTCAACGTTCTATTATCAAGTCCAACAAAAGGTAGAGTTTGCTGCTC
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                         1660      1670      1680      1690      1700      1710      1720      1730      1740      1750      1760
                         TTAAAAATAGCTTAGGTTCGACCGCATTCTTTCAGGGCACACAGGAATTCGCGTTCAAAAAACGCGAAAGTATGGTGAGCTTCCCCGAGATTCAGCGGCCGGTTGTTAAA

U499UHE170-2.seq(1>4036)        →  TTAAAAATAGCTTAGGTTCGACCGCATTCTTTCAGGGCACACAGGAATTCGCGTTCAAAAAACGCGAAAGTATGGTGAGCTTCCCCGAGATTCAGCGGCCGGTTGTTAAA
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←  TTAAAAATAGCTTAGGTTCGACCGCATTCTTTCAGGGCACACAGGAATTCGCGTTCAAAAAACGCGAAAGTATGGTGAGCTTCCCCGAGATTCAGCGGCCGGTTGTTAAA

                         1770      1780      1790      1800      1810      1820      1830      1840      1850      1860      1870
                         AATCCGATATCTGTTGGCCACGCGGCGAATGCCCTGGCCCTCTTAGTATCTGCCTTTCACAAGTGAGTTTATTAACTATGTCTACTCAGACTGCTCTTACGGTTTTGACC

U499UHE170-2.seq(1>4036)        →  AATCCGATATCTGTTGGCCACGCGGCGAATGCCCTGGCCCTCTTAGTATCTGCCTTTCACAAGTGAGTTTATTAACTATGTCTACTCAGACTGCTCTTACGGTTTTGACC
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←  AATCCGATATCTGTTGGCCACGCGGCGAATGCCCTGGCCCTCTTAGTATCTGCCTTTCACAAGTGAGTTTATTAACTATGTCTACTCAGACTGCTCTTACGGTTTTGACC

                         1880      1890      1900      1910      1920      1930      1940      1950      1960      1970      1980
                         CGTGGCACGGCAAATGGTGCCGCCACTGCTAACGTCACCTATAACCCGGTTTACGCCTCGCAGCGTAATGAAAACGGGTTTCTGGTGAGCGTCTGGCAGGAACGGACTTC

U499UHE170-2.seq(1>4036)        →  CGTGGCACGGCAAATGGTGCCGCCACTGCTAACGTCACCTATAACCCGGTTTACGCCTCGCAGCGTAATGAAAACGGGTTTCTGGTGAGCGTCTGGCAGGAACGGACTTC
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←  CGTGGCACGGCAAATGGTGCCGCCACTGCTAACGTCACCTATAACCCGGTTTACGCCTCGCAGCGTAATGAAAACGGGTTTCTGGTGAGCGTCTGGCAGGAACGGACTTC

                         1990      2000      2010      2020      2030      2040      2050      2060      2070      2080      2090
                         CACGTCGCCGCTCGGCTACAGTGACCTTACGGTCATGTCAAAGCCCGCTCTTGGGAACGTTCCCATGCAGCGCCTCAACGTCCGATTGGTTCTTCCAACCCTCGAGACAT

U499UHE170-2.seq(1>4036)        →  CACGTCGCCGCTCGGCTACAGTGACCTTACGGTCATGTCAAAGCCCGCTCTTGGGAACGTTCCCATGCAGCGCCTCAACGTCCGATTGGTTCTTCCAACCCTCGAGACAT
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←  CACGTCGCCGCTCGGCTACAGTGACCTTACGGTCATGTCAAAGCCCGCTCTTGGGAACGTTCCCATGCAGCGCCTCAACGTCCGATTGGTTCTTCCAACCCTCGAGACAT

                         2100      2110      2120      2130      2140      2150      2160      2170      2180      2190      2200
                         TGTCGACGAGCTCCGGCAGCGGTTATACCGCGAAGCCAAAGGTGGCTTACACGAACGAAATCAAACTCGAAGCCCTGATGCCGACGCAAGGGACCAAGGAAGAGAAGTGG

U499UHE170-2.seq(1>4036)        →  TGTCGACGAGCTCCGGCAGCGGTTATACCGCGAAGCCAAAGGTGGCTTACACGAACGAAATCAAACTCGAAGCCCTGATGCCGACGCAAGGGACCAAGGAAGAGAAGTGG
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←  TGTCGACGAGCTCCGGCAGCGGTTATACCGCGAAGCCAAAGGTGGCTTACACGAACGAAATCAAACTCGAAGCCCTGATGCCGACGCAAGGGACCAAGGAAGAGAAGTGG
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←                                                  AAGCCCTGATGCCGACGCAAGGGACCAAGGAAGAGAAGTGG

                         2210      2220      2230      2240      2250      2260      2270      2280      2290      2300      2310
                         GAACTGCACGCCCGTGCAGTTTCTGCCTTCTCCAACGCGGTCATCCTAGCGTTGTTCAAGGACAACGAGCAAGTTTCGTAATCCACCCCCCTGAGGGGGCGTCAGTGTAA

U499UHE170-2.seq(1>4036)        →  GAACTGCACGCCCGTGCAGTTTCTGCCTTCTCCAACGCGGTCATCCTAGCGTTGTTCAAGGACAACGAGCAAGTTTCGTAATCCACCCCCCTGAGGGGGCGTCAGTGTAA
E05-R118223-U499UHE170-2-2-SEQ4RN.ab1(1>766)  ←  GAACTGCACGCCCGTGCAGTTTCT
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←  GAACTGCACGCCCGTGCAGTTTCTGCCTTCTCCAACGCGGTCATCCTAGCGTTGTTCAAGGACAACGAGCAAGTTTCGTAATCCACCCCCCTGAGGGGGCGTCAGTGTAA

                         2320      2330      2340      2350      2360      2370      2380      2390      2400      2410      2420
                         CCGGAGTACGTTATCATGTCACAACGTCGTGTCTTTTCAGGACGACGCCGTCTTACGACGGACGAGGCCGCATTACGGATTTTCGAGTTGCTGGACACACCTGTGTCCTT

U499UHE170-2.seq(1>4036)        →  CCGGAGTACGTTATCATGTCACAACGTCGTGTCTTTTCAGGACGACGCCGTCTTACGACGGACGAGGCCGCATTACGGATTTTCGAGTTGCTGGACACACCTGTGTCCTT
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←  CCGGAGTACGTTATCATGTCACAACGTCGTGTCTTTTCAGGACGACGCCGTCTTACGACGGACGAGGCCGCATTACGGATTTTCGAGTTGCTGGACACACCTGTGTCCTT

                         2430      2440      2450      2460      2470      2480      2490      2500      2510      2520      2530
                         AGGTTGCTATCTCCGCTTAAAACACGGAGAGATTAGGCAACTGATTGAGGCAACCGCCGTAAATCCGACCGACTATTGTTTGATGATTGTTAAGGAGATGCATCCGCATC

U499UHE170-2.seq(1>4036)        →  AGGTTGCTATCTCCGCTTAAAACACGGAGAGATTAGGCAACTGATTGAGGCAACCGCCGTAAATCCGACCGACTATTGTTTGATGATTGTTAAGGAGATGCATCCGCATC
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←  AGGTTGCTATCTCCGCTTAAAACACGGAGAGATTAGGCAACTGATTGAGGCAACCGCCGTAAATCCGACCGACTATTGTTTGATGATTGTTAAGGAGATGCATCCGCATC
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                              2540      2550      2560      2570      2580      2590      2600      2610      2620      2630      2640
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              TCCGCGAATCAGCCGAGAGAGATCTCGCTGAACGTTTTCGCAAAGATTATCAAGCAGTAAGTTTGCTCTCAAAGCTCGATCGCGAGATTGGGATTGATAAGGAGCTGGTC

U499UHE170-2.seq(1>4036)              →   TCCGCGAATCAGCCGAGAGAGATCTCGCTGAACGTTTTCGCAAAGATTATCAAGCAGTAAGTTTGCTCTCAAAGCTCGATCGCGAGATTGGGATTGATAAGGAGCTGGTC
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←   TCCGCGAATCAGCCGAGAGAGATCTCGCTGAACGTTTTCGCAAAGATTATCAAGCAGTAAGTTTGCTCTCAAAGCTCGATCGCGAGATTGGGATTGATAAGGAGCTGGTC

                              2650      2660      2670      2680      2690      2700      2710      2720      2730      2740      2750
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              GCCTTTCAGAAATGGGAGGATGCGGAGAGGAGTAACCTTTCCACAAACGATCGATTGAGATTCTACTATGACCCAGAAAAGGGTGGCTACCGCCATCCCAACTACGGTCC

U499UHE170-2.seq(1>4036)              →   GCCTTTCAGAAATGGGAGGATGCGGAGAGGAGTAACCTTTCCACAAACGATCGATTGAGATTCTACTATGACCCAGAAAAGGGTGGCTACCGCCATCCCAACTACGGTCC
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←   GCCTTTCAGAAATGGGAGGATGCGGAGAGGAGTAACCTTTCCACAAACGATCGATTGAGATTCTACTATGACCCAGAAAAGGGTGGCTACCGCCATCCCAACTACGGTCC

                              2760      2770      2780      2790      2800      2810      2820      2830      2840      2850      2860
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              GTTCGCGGAGCATCTGCACCGCGCGCGAAAAATTATAGCTAGGATTCTTGGTCGGTTTAAGTGGTCGGAGGCTGCACGACATTTCGGCTTCGGTCCCGGGGTAACCCGGC

U499UHE170-2.seq(1>4036)              →   GTTCGCGGAGCATCTGCACCGCGCGCGAAAAATTATAGCTAGGATTCTTGGTCGGTTTAAGTGGTCGGAGGCTGCACGACATTTCGGCTTCGGTCCCGGGGTAACCCGGC
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←   GTTCGCGGAGCATCTGCACCGCGCGCGAAAAATTATAGCTAGGATTCTTGGTCGGTTTAAGTGGTCGGAGGCTGCACGACATTTCGGCTTCGGTCCCGGGGTAACCCGGC

                              2870      2880      2890      2900      2910      2920      2930      2940      2950      2960      2970
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              AAACCAAAGGTCGGCGTGTCGATCTCTCAAGAAAATTTGCGGGACTTCCCGCGGTTTCGCCTCAAGCCAGCGCAATCGCAGCACTTGCCATCGGTATGACACCCGTATGG

U499UHE170-2.seq(1>4036)              →   AAACCAAAGGTCGGCGTGTCGATCTCTCAAGAAAATTTGCGGGACTTCCCGCGGTTTCGCCTCAAGCCAGCGCAATCGCAGCACTTGCCATCGGTATGACACCCGTATGG
E04-R118223-U499UHE170-2-2-SEQ3RN.ab1(1>760)  ←   AAACCAAAGGTCGGCGTGTCGATCTCTCAAGAAAATTTGCGGGACTTCCCGCGGTTTCG
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)   →                      CTCAAGAAAATTTGCGGGACTTCCCGCGGTTTCGCCTCAAGCCAGCGCAATCGCAGCACTTGCCATCGGTATGACACCCGTATGG

                              2980      2990      3000      3010      3020      3030      3040      3050      3060      3070      3080
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              TTTGAAAGTCTGACAGGGGTAATACCCGTCGGACCGTGCAGTTACCTAGGTTTGGTGACTGATGATGCTGTGTCTGTTTCCTTTGTACCTAAAAATGCAAAGACGTACCG

U499UHE170-2.seq(1>4036)              →   TTTGAAAGTCTGACAGGGGTAATACCCGTCGGACCGTGCAGTTACCTAGGTTTGGTGACTGATGATGCTGTGTCTGTTTCCTTTGTACCTAAAAATGCAAAGACGTACCG
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)   →   TTTGAAAGTCTGACAGGGGTAATACCCGTCGGACCGTGCAGTTACCTAGGTTTGGTGACTGATGATGCTGTGTCTGTTTCCTTTGTACCTAAAAATGCAAAGACGTACCG

                              3090      3100      3110      3120      3130      3140      3150      3160      3170      3180      3190
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              AGCAATCGGTATAGAGCCGCTAATGAATATCTACCTTCAAAAGGGGGTGGGTACCGTAATACGGCACAGACTAAAACGCGTTGGTATTAATCTAGACAGTCAAGGGGCTA

U499UHE170-2.seq(1>4036)              →   AGCAATCGGTATAGAGCCGCTAATGAATATCTACCTTCAAAAGGGGGTGGGTACCGTAATACGGCACAGACTAAAACGCGTTGGTATTAATCTAGACAGTCAAGGGGCTA
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)   →   AGCAATCGGTATAGAGCCGCTAATGAATATCTACCTTCAAAAGGGGGTGGGTACCGTAATACGGCACAGACTAAAACGCGTTGGTATTAATCTAGACAGTCAAGGGGCTA

                              3200      3210      3220      3230      3240      3250      3260      3270      3280      3290      3300
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              ACCAAGCAGGCGCCTTCCTAGCTTCGTTGCTTAACGGACACGCGACCCTGGATTTATCCAGTGCGAGCGACACCGTGGCAATTGAGCTAGTGCGAGAACTGCTCCCCGAC

U499UHE170-2.seq(1>4036)              →   ACCAAGCAGGCGCCTTCCTAGCTTCGTTGCTTAACGGACACGCGACCCTGGATTTATCCAGTGCGAGCGACACCGTGGCAATTGAGCTAGTGCGAGAACTGCTCCCCGAC
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)   →   ACCAAGCAGGCGCCTTCCTAGCTTCGTTGCTTAACGGACACGCGACCCTGGATTTATCCAGTGCGAGCGACACCGTGGCAATTGAGCTAGTGCGAGAACTGCTCCCCGAC

                              3310      3320      3330      3340      3350      3360      3370      3380      3390      3400      3410
                              |....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

                              GACTGGTTCTATGTGTTGAACTCCCTTCGCTGTACCTACAGCGAAATCAAGGGTAAGCCTTTCGTAAAGAACCAAAAGTTCTCATCGATGGGCAATGGTTTTACATTTGA

U499UHE170-2.seq(1>4036)              →   GACTGGTTCTATGTGTTGAACTCCCTTCGCTGTACCTACAGCGAAATCAAGGGTAAGCCTTTCGTAAAGAACCAAAAGTTCTCATCGATGGGCAATGGTTTTACATTTGA
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)   →   GACTGGTTCTATGTGTTGAACTCCCTTCGCTGTACCTACAGCGAAATCAAGGGTAAGCCTTTCGTAAAGAACCAAAAGTTCTCATCGATGGGCAATGGTTTTACATTTGA
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                                           3420      3430      3440      3450      3460      3470      3480      3490      3500      3510      3520
                                           ATTAGAAAGTCTCCTTTTCTACGGTTTGTCAAAAGCTGTGGAAGAACTGCGTGAAACCTCTAACGAGGTTCTTGTGTACGGTGATGACATTATCGTACACGAAAAGACAG

U499UHE170-2.seq(1>4036)              →    ATTAGAAAGTCTCCTTTTCTACGGTTTGTCAAAAGCTGTGGAAGAACTGCGTGAAACCTCTAACGAGGTTCTTGTGTACGGTGATGACATTATCGTACACGAAAAGACAG
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)  →  ATTAGAAAGTCTCCTTTTCTACGGTTTGTCAAAAGCTGTGGAAGAACTGCGTGAAACCTCTAACGAGGTTCTTGTGTACGGTGATGACATTATCGTACACGAAAAGACAG

                                           3530      3540      3550      3560      3570      3580      3590      3600      3610      3620      3630
                                           CAGAGGATTTGATTCCTTTGCTGACTTTCTGCGGGTTCACTGTGAATAAAGCCAAAAGCTTTACATCAGGGTACTTCTATGAAAGTTGCGGTCGAGATTTCTTTCTAGGT

U499UHE170-2.seq(1>4036)              →    CAGAGGATTTGATTCCTTTGCTGACTTTCTGCGGGTTCACTGTGAATAAAGCCAAAAGCTTTACATCAGGGTACTTCTATGAAAGTTGCGGTCGAGATTTCTTTCTAGGT
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)  →  CAGAGGATTTGATTCCTTTGCTGACTTTCTGCGGGTTCACTGTGAATAAAGCCAAAAGCTTTACATCAGGGTACTTCTATGAAAGTTGCGGTCGAGATTTCTTTCTAGGT
D08-R118223-U499UHE170-2-2-SEQ1R.ab1(1>761)  ←          GATTCCTTTGCTGACTTTCTGCGGGTTCACTGTGAATAAAGCCAAAAGCTTTACATCAGGGTACTTCTATGAAAGTTGCGGTCGAGATTTCTTTCTAGGT

                                           3640      3650      3660      3670      3680      3690      3700      3710      3720      3730      3740
                                           TACGACGTACGCCCTTTCTTCATCAGAAAGGAGCTGGAGGATGTCCAAGACTACTACCTCCTATACAACCAGTGTAGGGCAAGCGATCGCAATGTCGATCGCCCTTATCG

U499UHE170-2.seq(1>4036)              →    TACGACGTACGCCCTTTCTTCATCAGAAAGGAGCTGGAGGATGTCCAAGACTACTACCTCCTATACAACCAGTGTAGGGCAAGCGATCGCAATGTCGATCGCCCTTATCG
A06-R118223-U499UHE170-2-2-SEQ2F.ab1(1>765)  →  TACGACGTACGCCCTTTCTT
D08-R118223-U499UHE170-2-2-SEQ1R.ab1(1>761)  ←  TACGACGTACGCCCTTTCTTCATCAGAAAGGAGCTGGAGGATGTCCAAGACTACTACCTCCTATACAACCAGTGTAGGGCAAGCGATCGCAATGTCGATCGCCCTTATCG

                                           3750      3760      3770      3780      3790      3800      3810      3820      3830      3840      3850
                                           TACTCCTGTGTACGGCCCTGTTCTTGGTAGTATTTACTGTAGCGTACGCCCGAAGTTTAGGTATTCCGTCCCCTATCATTGGGGCGACGATACCGGCTTCCAGCAAAGCT

U499UHE170-2.seq(1>4036)              →    TACTCCTGTGTACGGCCCTGTTCTTGGTAGTATTTACTGTAGCGTACGCCCGAAGTTTAGGTATTCCGTCCCCTATCATTGGGGCGACGATACCGGCTTCCAGCAAAGCT
D08-R118223-U499UHE170-2-2-SEQ1R.ab1(1>761)  ←  TACTCCTGTGTACGGCCCTGTTCTTGGTAGTATTTACTGTAGCGTACGCCCGAAGTTTAGGTATTCCGTCCCCTATCATTGGGGCGACGATACCGGCTTCCAGCAAAGCT

                                           3860      3870      3880      3890      3900      3910      3920      3930      3940      3950      3960
                                           TCGACGAAGCTTGCCCCTCCCTCGCAAGAGGAAGGGGTTGGGGAGTCTTCCGATTCCCCTACTGGCAATCAGTTCCCGCCACGGTAAAACGTGAGGGAATTTCAGCGCTC

U499UHE170-2.seq(1>4036)              →    TCGACGAAGCTTGCCCCTCCCTCGCAAGAGGAAGGGGTTGGGGAGTCTTCCGATTCCCCTACTGGCAATCAGTTCCCGCCACGGTAAAACGTGAGGGAATTTCAGCGCTC
D08-R118223-U499UHE170-2-2-SEQ1R.ab1(1>761)  ←  TCGACGAAGCTTGCCCCTCCCTCGCAAGAGGAAGGGGTTGGGGAGTCTTCCGATTCCCCTACTGGCAATCAGTTCCCGCCACGGTAAAACGTGAGGGAATTTCAGCGCTC

                                           3970      3980      3990      4000      4010      4020      4030      4040      4050      4060      4070
                                           GCTGCGAAGCTTGCGCGTTTGTCAGTACGCTGCCTAGACCTGGATTCGCACCCAGGTCTTGCAAGGGTAGCCGAAAGGCTTTTCCCTGAGACAGTACGCACCGGTAACGA

U499UHE170-2.seq(1>4036)              →    GCTGCGAAGCTTGCGCGTTTGTCAGTACGCTGCCTAGACCTGGATTCGCACCCAGGTCTTGCAAGGGTAGCCGAAAGGCTTTTCCCTGAGACAGTACGCACCGGTAACGA
D08-R118223-U499UHE170-2-2-SEQ1R.ab1(1>761)  ←  GCTGCGAAGCTTGCGCGTTTGTCAGTACGCTGCCTAGACCTGGATTCGCACCCAGGTCTTGCAAGGGTAGCCGAAAGGCTTTTCCCTGAGACAGTACGCACCGGTAACGA

                                           4080      4090      4100      4110      4120      4130      4140      4150      4160      4170      4180
                                           CCTAGCTGTCCGTGAGGATCGCGAAGGTCGGCGTCGTACAGCTGTCGGTTATACCGTCAGCTGGGCTTAGGGGTTTACTCCTAAACCATTTGGAGACAACTTGTCTTCTG

U499UHE170-2.seq(1>4036)              →    CCTAGCTGTCCGTGAGGATCGCGAAGGTCGGCGTCGTACAGCTGTCGGTTATACCGTCAGCTGGGCTTAGGGGTTTACTCCTAAACCATTTGGAGACAACTTGTCTTCTG
D08-R118223-U499UHE170-2-2-SEQ1R.ab1(1>761)  ←  CCTAGCTGTCCGTGAGGATCGCGAAGGTCGGCGTCGTACAGCTGTCGGTTATACCGTCAGCTGGGCTTAGGGGTTTACTCCTAAACCATTTGGAGACAACTTGTCTTCTG

                                           4190      4200      4210      4220      4230      4240      4250      4260      4270      4280      4290
                                           GAGGACTAAGGTCCATAAAACAAAGTGGAAAAAGCCGCGAAGGCTGAGCAATAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGCTGAAAGG

U499UHE170-2.seq(1>4036)              →    GAGGACTAAGGTCCATAAAACAAAGTGGAAAAAGCCGCGAAGGCTGAGC
D08-R118223-U499UHE170-2-2-SEQ1R.ab1(1>761)  ←  GAGGACTAAGGTCCATAAAACAAAGTGGAAAAAGCCGCGAAGGCTGAGCAATAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGCTGAAAGG
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