

Majority GCGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCAATAAAGCCTTTTGCTGTTTGCATCCGAAACGTG
10 20 30 40 50 60 70 80

JY_MuLV GCGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCAATAAAGCCTTTTGCTGTTTGCATCCGAAACGTG 80
N417_MuLV HQ246218 GCGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCAATAAAGCCTTTTGCTGTTTGCATCCGAAACGTG 80
DG75_MuLV AF221065 GCGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCAATAAAGCCTTTTGCTGTTTGCATCCGAAACGTG 80
VP62_XMRV DQ399707 GCGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCAATAAAGCCTTTTGCTGTTTGCATCCGAAACGTG 80
MCF1233_MuLV U13766 GCGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCAATAAAGCCTTTTGCTGTTTGCATCCGAAACGTG 80

Majority GCCTCGCTGTTCTTGGGAGGGTCTCCTCAGAGTGATTGACTACCCAGCTCGGGGGTCTTTCATTTGGGGGCTCGTCCGG
90 100 110 120 130 140 150 160

JY_MuLV GCCTCGCTGTTCTTGGGAGGGTCTCCTCAGAGTGATTGACTACCCAGCTCGGGGGTCTTTCATTTGGGGGCTCGTCCGG 160
N417_MuLV HQ246218 GCCTCGCTGTTCTTGGGAGGGTCTCCTCAGAGTGATTGACTACCCAGCTCGGGGGTCTTTCATTTGGGGGCTCGTCCGG 160
DG75_MuLV AF221065 GTCTCGCTGTTCTTGGGAGGGTCTCCTCAGAGTGATTGACTACCCAGCTCGGGGGTCTTTCATTTGGGGGCTCGTCCGG 160
VP62_XMRV DQ399707 GCCTCGCTGTTCTTGGGAGGGTCTCCTCAGAGTGATTGACTACCCAGCTCGGGGGTCTTTCATTTGGGGGCTCGTCCGG 160
MCF1233_MuLV U13766 GCCTCGCTGTTCTTGGGAGGGTCTCCTCAGAGTGATTGACTACCCAGCTCGGGGGTCTTTCATTTGGGGGCTCGTCCGG 160

Majority GATTTGGAGACCCCGCCAGGGACCACCGACCCACCGTGGGAGGTAAGCTGGCCAGCGATCGTTTTGTCTCCGTCTCT
170 180 190 200 210 220 230 240

JY_MuLV GATTTGGAGACCCCGCCAGGGACCACCGACCCACCGTGGGAGGTAAGCTGGCCAGCGATCGTTTTGTCTCCGTCTCT 240
N417_MuLV HQ246218 GATTTGGAGACCCCGCCAGGGACCACCGACCCACCGTGGGAGGTAAGCTGGCCAGCGATCGTTTTGTCTCCGTCTCT 240
DG75_MuLV AF221065 GATTTGGAGACCCCGCCAGGGACCACCGACCCACCGTGGGAGGTAAGCTGGCCAGCGATCGTTTTGTCTCCGTCTCT 239
VP62_XMRV DQ399707 GATTTGGAGACCCCGCCAGGGACCACCGACCCACCGTGGGAGGTAAGCTGGCCAGCGATCGTTTTGTCTCCGTCTCT 240
MCF1233_MuLV U13766 GATTTGGAGACCCCGCCAGGGACCACCGACCCACCGTGGGAGGTAAGCTGGCCAGCGATCGTTTTGTCTCCGTCTCT 239

Majority GTCTTTGTGCGTGTGTGTGTGCCGGCATCTACTTTTTGCGCCTGCGTCTGAATCTGACTAGTTAGTAACTAGATCT
250 260 270 280 290 300 310 320

JY_MuLV GTCTTTGTGCGTGTGTGTGTGCCGGCATCTACTTTTTGCGCCTGCGTCTGAATCTGACTAGTTAGTAACTAGATCT 320
N417_MuLV HQ246218 GTCTTTGTGCGTGTGTGTGTGCCGGCATCTACTTTTTGCGCCTGCGTCTGAATCTGACTAGTTAGTAACTAGATCT 320
DG75_MuLV AF221065 GTCTTTGTGCGTGTGTGTGTGCCGGCATCTACTTTTTGCGCCTGCGTCTGAATCTGACTAGTTAGTAACTAGATCT 309
VP62_XMRV DQ399707 GTCTTTGTGCGTGTGTGTGTGCCGGCATCTACTTTTTGCGCCTGCGTCTGAATCTGACTAGTTAGTAACTAGATCT 320
MCF1233_MuLV U13766 GTCTTTGTGCGTGTGTGTGTGCCGGCATCTACTTTTTGCGCCTGCGTCTGAATCTGACTAGTTAGTAACTAGATCT 319

Majority GTATCTGGCGTTCCTGGAAGAACTGACGAGTTCGTATTCCCGACCGCAGCCCTGGGAGACGTCTCAGAGGCATCGGGG
330 340 350 360 370 380 390 400

JY_MuLV GTATCTGGCGTTCCTGGAAGAACTGACGAGTTCGTATTCCCGACCGCAGCCCTGGGAGACGTCTCAGAGGCATCGGGG 400
N417_MuLV HQ246218 GTATCTGGCGTTCCTGGAAGAACTGACGAGTTCGTATTCCCGACCGCAGCCCTGGGAGACGTCTCAGAGGCATCGGGG 400
DG75_MuLV AF221065 GAATCTGGCGTTCCTGGAAGAACTGACGAGTTCGTATTCCCGACCGCAGCCCTGGGAGACGTCTCAGAGGCATCGGGG 389
VP62_XMRV DQ399707 GTATCTGGCGTTCCTGGAAGAACTGACGAGTTCGTATTCCCGACCGCAGCCCTGGGAGACGTCTCAGAGGCATCGGGG 400
MCF1233_MuLV U13766 GTATCTGGCGTTCCTGGAAGAACTGACGAGTTCGTATTCCCGACCGCAGCCCTGGGAGACGTCTCAGAGGCATCGGGG 399

Majority GCCCGTGGGTGGCCCAATCAGTAAGTCCGAGTCTGACCGATTCCGACTATTTGGAGCCCCTCCTTTGTCGGAGGGGTA
410 420 430 440 450 460 470 480

JY_MuLV GCCCGTGGGTGGCCCAATCAGTAAGTCCGAGTCTGACCGATTCCGACTATTTGGAGCCCCTCCTTTGTCGGAGGGGTA 480
N417_MuLV HQ246218 GCCCGTGGGTGGCCCAATCAGTAAGTCCGAGTCTGACCGATTCCGACTATTTGGAGCCCCTCCTTTGTCGGAGGGGTA 480
DG75_MuLV AF221065 GCCCGTGGGTGGCCCAATCAGTAAGTCCGAGTCTGACCGATTCCGACTATTTGGAGCCCCTCCTTTGTCGGAGGGGTA 469
VP62_XMRV DQ399707 GCCCGTGGGTGGCCCAATCAGTAAGTCCGAGTCTGACCGATTCCGACTATTTGGAGCCCCTCCTTTGTCGGAGGGGTA 458
MCF1233_MuLV U13766 GCCCGTGGGTGGCCCAATCAGTAAGTCCGAGTCTGACCGATTCCGACTATTTGGAGCCCCTCCTTTGTCGGAGGGGTA 479

Majority CGTGGTCTTTTAGGAGACGAGAGGTCCAAGCCCTCGCCGCTCCATCTGAATTTTGTTCGTTTTTCGCCGAAACC
490 500 510 520 530 540 550 560

JY_MuLV CGTGGTCTTTTAGGAGACGAGAGGTCCAAGCCCTCGCCGCTCCATCTGAATTTTGTTCGTTTTTCGCCGAAACC 560
N417_MuLV HQ246218 CGTGGTCTTTTAGGAGACGAGAGGTCCAAGCCCTCGCCGCTCCATCTGAATTTTGTTCGTTTTTCGCCGAAACC 560
DG75_MuLV AF221065 CGTGGTCTGTTGGGCGCGAGGGCCAAACGCTCTGTCGCCATCTGAATTTTGTTCGTTTTTCGCCGAAACC 549
VP62_XMRV DQ399707 ---GGCTTTGTTGGGCGACGAGAGACAGAGACTTCGCGCCCGCTCTGAATTTTGTTCGTTTTTCGCCGAAACC 535
MCF1233_MuLV U13766 CGTGGTCTTTTAGGAGACGAGAGGTCCAAGCCCTCGCCGCTCCATCTGAATTTTGTTCGTTTTTCGCCGAAACC 559

Majority GCGCCGCGCTTGTCTGTCTCAGTGTGTTTTGTCATTTGTCTGTTTCGTTATTGTTTTGGACCGTTTCTAAAAATAG
570 580 590 600 610 620 630 640

JY_MuLV GCGCCGCGCTTGTCTGTCTCAGTGTGTTTTGTCATTTGTCTGTTTCGTTATTGTTTTGGACCGTTTCTAAAAATAG 640
N417_MuLV HQ246218 GCGCCGCGCTTGTCTGTCTCAGTGTGTTTTGTCATTTGTCTGTTTCGTTATTGTTTTGGACCGTTTCTAAAAATAG 640
DG75_MuLV AF221065 GCGCCGCGCTTGTCTGTCTCAGTGTGTTTTGTCATTTGTCTGTTTCGTTATTGTTTTGGACCGTTTCTAAAAATAG 629
VP62_XMRV DQ399707 GCGCCGCGCTTGTCTGTCTCAGTGTGTTTTGTCATTTGTCTGTTTCGTTATTGTTTTGGACCGTTTCTAAAAATAG 615
MCF1233_MuLV U13766 GCGCCGCGCTTGTCTGTCTCAGTGTGTTTTGTCATTTGTCTGTTTCGTTATTGTTTTGGACCGTTTCTAAAAATAG 639

Majority GGACAGACCGTAACCACCCTCTGAGTCTGACCCTAGAACACTGGGAGACGTCCAGCGCATCGCGTCCAACAGTCCGT
650 660 670 680 690 700 710 720

JY_MuLV GGACAGACCGTAACCACCCTCTGAGTCTGACCCTAGAACACTGGGAGACGTCCAGCGCATCGCGTCCAACAGTCCGT 720
N417_MuLV HQ246218 GGACAGACCGTAACCACCCTCTGAGTCTGACCCTAGAACACTGGGAGACGTCCAGCGCATCGCGTCCAACAGTCCGT 720
DG75_MuLV AF221065 GGACAGACCGTAACCACCTCTGAGTCTGACCCTAGAACACTGGGAGACGTCCAGCGCATCGCGTCCAACAGTCCGT 709
VP62_XMRV DQ399707 GGACAGACCGTAACCTACCCTCTGAGTCTAACCTGAGCACTGGGAGATGTCCAGCGCATGCACTCCAACAGTCTGT 695
MCF1233_MuLV U13766 GGACAGACCGTAACCACCCTCTGAGTCTGACCCTAGAACACTGGGAGACGTCCAGCGCATCGCGTCCAACAGTCCGT 719

Majority GGACGTCAAGAAGAGACGCTGGGTACCTTCTGCTCTGCCGAGTGGCCAACCTTTCGGTGTAGGGTGGCCGCAAGATGGTA
730 740 750 760 770 780 790 800

JY_MuLV GGACGTCAAGAAGAGACGCTGGGTACCTTCTGCTCTGCCGAGTGGCCAACCTTTCGGTGTAGGGTGGCCGCAAGATGGTA 800
N417_MuLV HQ246218 GGACGTCAAGAAGAGACGCTGGGTACCTTCTGCTCTGCCGAGTGGCCAACCTTTCGGTGTAGGGTGGCCGCAAGATGGTA 800
DG75_MuLV AF221065 GGACGTCAAGAAGAGACGCTGGGTACCTTCTGCTCTGCCGAGTGGCCAACCTTTCGGTGTAGGGTGGCCGCAAGATGGTA 789
VP62_XMRV DQ399707 GGAAGTCAAGAAGAGACGCTGGGTACCTTCTGCTCTGCCGAGTGGCCAACCTTTCGGTGTAGGGTGGCCGCAAGATGGTA 775
MCF1233_MuLV U13766 GGACGTCAAGAAGAGACGCTGGGTACCTTCTGCTCTGCCGAGTGGCCAACCTTTCGGTGTAGGGTGGCCGCAAGATGGTA 799

Majority CTTTTAATTTGGACATTATTTTACAGTTAAATCTAAGGTGTTCTCTCCCGTCCCACGGACACCCGGATCAGTCCCA
810 820 830 840 850 860 870 880

JY_MuLV CTTTTAATTTGGACATTATTTTACAGTTAAATCTAAGGTGTTCTCTCCCGTCCCACGGACACCCGGATCAGTCCCA 880
N417_MuLV HQ246218 CTTTTAATTTGGACATTATTTTACAGTTAAATCTAAGGTGTTCTCTCCCGTCCCACGGACACCCGGATCAGTCCCA 880
DG75_MuLV AF221065 CTTTTAATTTGGACATTATTTTACAGTTAAATCTAAGGTGTTCTCTCCCGTCCCACGGACACCCGGATCAGTCCCA 869
VP62_XMRV DQ399707 CTTTTAATTTAGTGTATTATCTCTCAGTTCAAGTCTAGAGTGTGTTCTCTCCCGTCCCACGGACACCCGGATCAGTCCCA 855
MCF1233_MuLV U13766 CTTTTAATTTGGACATTATTTTACAGTTAAATCTAAGGTGTTCTCTCCCGTCCCACGGACACCCGGATCAGTCCCA 879

Majority TACATTGTCACCTGGGAGGCTATTGCCTATGAACCCCTCCGTGGGTCAAACCTTTTGTCTCTCCAAACTCTCCCCTC
890 900 910 920 930 940 950 960

JY_MuLV TACATTGTCACCTGGGAGGCTATTGCCTATGAACCCCTCCGTGGGTCAAACCTTTTGTCTCTCCAAACTCTCCCCTC 960
N417_MuLV HQ246218 TACATTGTCACCTGGGAGGCTATTGCCTATGAACCCCTCCGTGGGTCAAACCTTTTGTCTCTCCAAACTCTCCCCTC 960
DG75_MuLV AF221065 TACATTGTCACCTGGGAGGCTATTGCCTATGAACCCCTCCGTGGGTCAAACCTTTTGTCTCTCCAAACCCCTCTCTT 949
VP62_XMRV DQ399707 TATATGTCACCTGGGAGGCTATTGCCTATGAACCCCTCCGTGGGTCAAACCTTTTGTCTCTCCAAACCCCTCTCTT 935
MCF1233_MuLV U13766 TACATTGTCACCTGGGAGGCTATTGCCTATGAACCCCTCCGTGGGTCAAACCTTTTGTCTCTCCAAACTCTCCCCTC 959

Majority TCCAACCGTCCCATCCTCCCATCCGGTCTTCGACCAACCTCCGCCCGATCTGCCCTTACCTGCTTTACCCCT
970 980 990 1000 1010 1020 1030 1040

JY_MuLV TCCAACCGTCCCATCCTCCCATCCGGTCTTCGACCAACCTCCGCCCGATCTGCCCTTACCTGCTTTACCCCT 1040
N417_MuLV HQ246218 TCCAACCGTCCCATCCTCCCATCCGGTCTTCGACCAACCTCCGCCCGATCTGCCCTTACCTGCTTTACCCCT 1040
DG75_MuLV AF221065 ACCGACAGCTCCCGTCTCCCGCCGGTCTTCGACCAACCTCCGCCCGATCTGCCCTTACCTGCTTTACCCCT 1029
VP62_XMRV DQ399707 ACCGACAGCTCCCGTCTCCCGCCGGTCTTCGACCAACCTCCGCCCGATCTGCCCTTACCTGCTTTACCCCT 1015
MCF1233_MuLV U13766 TCCAACCGTCCCATCCTCCCATCCGGTCTTCGACCAACCTCCGCCCGATCTGCCCTTACCTGCTTTACCCCT 1039

Majority CTATAAAACCCAGACCTTCTAACCTCAGTTTCTCCGATAATGGCGGACCTCTCATTGACCTTCTACAGAAGACCCT
1050 1060 1070 1080 1090 1100 1110 1120

JY_MuLV CTATAAAACCCAGACCTTCTAACCTCAGTTTCTCCGATAATGGCGGACCTCTCATTGACCTTCTACAGAAGACCCT 1120
N417_MuLV HQ246218 CTATAAAACCCAGACCTTCTAACCTCAGTTTCTCCGATAATGGCGGACCTCTCATTGACCTTCTACAGAAGACCCT 1120
DG75_MuLV AF221065 CTATAAAACCCAGACCTTCTAACCTCAGTTTCTCCGATAATGGCGGACCTCTCATTGACCTTCTACAGAAGACCCT 1109
VP62_XMRV DQ399707 CTATAAAACCCAGACCTTCTAACCTCAGTTTCTCCGATAATGGCGGACCTCTCATTGACCTTCTACAGAAGACCCT 1095
MCF1233_MuLV U13766 CTATAAAACCCAGACCTTCTAACCTCAGTTTCTCCGATAATGGCGGACCTCTCATTGACCTTCTACAGAAGACCCT 1119

Majority CCGCCGTACGGAGAACAGGGACCGTCTCCTCTGACGGAGAXGGCGACAGAGAAGAGGCCACCTCCACTTCTGAGATTCC
1130 1140 1150 1160 1170 1180 1190 1200

JY_MuLV CCGCCGTACGGAGAACAGGGACCGTCTCCTCTGACGGAGATGGCGACAGAGAAGAGGCCACCTCCACTTCTGAGATTCC 1200
N417_MuLV HQ246218 CCGCCGTACGGAGAACAGGGACCGTCTCCTCTGACGGAGATGGCGACAGAGAAGAGGCCACCTCCACTTCTGAGATTCC 1200
DG75_MuLV AF221065 CCGCCGTACGGAGACACACACCTTCTCCTCTGACGGAGATGGCGACAGAGAAGAGGCCACCTCCACTTCTGAGATTCC 1186
VP62_XMRV DQ399707 CCGCCGTACGGAGACACACACCTTCTCCTCTGACGGAGATGGCGACAGAGAAGAGGCCACCTCCACTTCTGAGATTCC 1172
MCF1233_MuLV U13766 CCGCCGTACGGAGAACAGGGACCGTCTCCTCTGACGGAGATGGCGACAGAGAAGAGGCCACCTCCACTTCTGAGATTCC 1199

Majority TGCCCCCTCTCCCATGGTGTCTCGCTGCGGGGCAAAAAGAGACCCCCCGGGCAGATTCCACCACCTCTCGGGCTTTCC
1210 1220 1230 1240 1250 1260 1270 1280

JY_MuLV TGCCCCCTCTCCCATGGTGTCTCGCTGCGGGGCAAAAAGAGACCCCCCGGGCAGATTCCACCACCTCTCGGGCTTTCC 1280
N417_MuLV HQ246218 TGCCCCCTCTCCCATGGTGTCTCGCTGCGGGGCAAAAAGAGACCCCCCGGGCAGATTCCACCACCTCTCGGGCTTTCC 1280
DG75_MuLV AF221065 CCCCCCTCTCCCATGGTGTCTCGCTGCGGGGCAAAAAGAGACCCCCCGGGCAGATTCCACCACCTCTCGGGCTTTCC 1266
VP62_XMRV DQ399707 CCCCCCTCTCCCATGGTGTCTCGCTGCGGGGCAAAAAGAGACCCCCCGGGCAGATTCCACCACCTCTCGGGCTTTCC 1252
MCF1233_MuLV U13766 TGCCCCCTCTCCCATGGTGTCTCGCTGCGGGGCAAAAAGAGACCCCCCGGGCAGATTCCACCACCTCTCGGGCTTTCC 1279

Majority CACTCCGTTTGGGGGTAATGGTCAGTTXCAGTACTGGCCGTTTTCTCCTCGGATCTATATAACTGGAAAAATAATAAC
1290 1300 1310 1320 1330 1340 1350 1360

JY_MuLV CACTCCGTTTGGGGGTAATGGTCAGTTXCAGTACTGGCCGTTTTCTCCTCGGATCTATATAACTGGAAAAATAATAAC 1360
N417_MuLV HQ246218 CACTCCGTTTGGGGGTAATGGTCAGTTXCAGTACTGGCCGTTTTCTCCTCGGATCTATATAACTGGAAAAATAATAAC 1360
DG75_MuLV AF221065 CACTCCGATGGGGGAGATGGCAGTTXCAGTACTGGCCGTTTTCTCCTCGGATCTATATAACTGGAAAAATAATAAC 1346
VP62_XMRV DQ399707 CACTCCGATGGGGGAGATGGCAGTTXCAGTACTGGCCGTTTTCTCCTCGGATCTATATAACTGGAAAAATAATAAC 1332
MCF1233_MuLV U13766 CACTCCGTTTGGGGGTAATGGTCAGTTXCAGTACTGGCCGTTTTCTCCTCGGATCTATATAACTGGAAAAATAATAAC 1359

Majority CCTTCCTTTCTGAAGATCCAGGTAATGACXGCCTTAATTGAGTCTGTCCTCACCACCACCAGCCACCTGGGACGA
1370 1380 1390 1400 1410 1420 1430 1440

JY_MuLV CCTTCCTTTCTGAAGATCCAGGTAATGACXGCCTTAATTGAGTCTGTCCTCACCACCACCAGCCACCTGGGACGA 1440
N417_MuLV HQ246218 CCTTCCTTTCTGAAGATCCAGGTAATGACXGCCTTAATTGAGTCTGTCCTCACCACCACCAGCCACCTGGGACGA 1440
DG75_MuLV AF221065 CCTTCCTTTCTGAAGATCCAGGTAATGACXGCCTTAATTGAGTCTGTCCTCACCACCACCAGCCACCTGGGACGA 1426
VP62_XMRV DQ399707 CCTTCCTTTCTGAAGATCCAGGTAATGACXGCCTTAATTGAGTCTGTCCTCACCACCACCAGCCACCTGGGACGA 1412
MCF1233_MuLV U13766 CCTTCCTTTCTGAAGATCCAGGTAATGACXGCCTTAATTGAGTCTGTCCTCACCACCACCAGCCACCTGGGACGA 1439

Majority CTGTCAGCAGTTGTTGGGGACTCTGCTGACAGGAGAAGAAAAGCAGCGGGTGTCTCTAGAGGCCAGAAAGGCAGTCCGGG
1450 1460 1470 1480 1490 1500 1510 1520

JY_MuLV CTGTCAA CAGTTG CTGGGGACTCTGCTGACAGGAGAAGAAAAGCAGCGGGTGTCTCT GAAGCCAGAAAGGCAGTCCGGG 1520
N417_MuLV HQ246218 CTGTCAA CAGTTG CTGGGGACTCTGCTGACAGGAGAAGAAAAGCAGCGGGTGTCTCT GAAGCCAGAAAGGCAGTCCGGG 1520
DG75_MuLV AF221065 CTGTCAGCAGTTGTTGGGGACTCTGCTGACAGGAGAAGAAAAGCAGCGGGTGTCTCTAGAGGCC AGAAAGGCAGTCCGGG 1506
VP62_XMRV DQ399707 CTGTCAGCAGTTGTTGGGGACTCTGCTGACAGGAGAAGAAAAGCAGCGGGTGTCTCTAGAGGCC AGAAAGGCAGTCCGGG 1492
MCF1233_MuLV U13766 CTGTCAGCAA TTGTTGGGGACTCTGCTGACAGGAGAAGAAAAGCAGCGGGTGTCTCTAGAGGCCAGAAAGGCAGTCCGGG 1519

Majority GCAACGATGGACGCCCCACCCAGTTGCCTAATGAAGTCAATGCTGCCTTTCCCCTGAACGTCCCGATTGGGATTACACC
1530 1540 1550 1560 1570 1580 1590 1600

JY_MuLV GCGACGATGG CCGCCCCACCCA ATTGCCAATGAGATCGAGGCTGCCTTTCCCCT GAACGTCCCGA CTGGGATTACACC 1600
N417_MuLV HQ246218 GCGACGATGG CCGCCCCACCCA ATTGCCAATGAGATCGAGGCTGCCTTTCCCCT GAACGTCCCGA CTGGGATTACACC 1600
DG75_MuLV AF221065 GCAA T GATGGACGCCCCACT CAGTTGCCTAATGAAGTCAATGCTGC TTTCCCCTGAACG CCGCCGATTGGGATTACACC 1586
VP62_XMRV DQ399707 GCAA T GATGGACGCCCCACT CAGTTGCCTAATGAAGTCAATGCTGC TTTCCCCTGA CCGCCCGATTGGGATTACACC 1572
MCF1233_MuLV U13766 GCAACGATGGACGCCCCACCCAGTTGCCTAATGAAGTCAAT TCGCCTT CCCCTTGAACGTCCCGATTGGGATTACA 1599

Majority ACCCCTGAAGGTAGGAACCACCTAGTTCTCTATCGCCAGTTGCTCTTAGCGGGTCTCCAAAACGCGGGCAGGAGCCCCAC
1610 1620 1630 1640 1650 1660 1670 1680

JY_MuLV ACCCTTAGAGGTAGGAACCACCTAGTTCTCTATCGCAAGCTGCTCTT GCGGGTCTCCAAAAT GCGGGCAGGAGCCCCAC 1680
N417_MuLV HQ246218 ACCCTTAGAGGTAGGAACCACCTAGTTCTCTATCGCCAGTTGCTCTT GCGGGTCTCCAAAAT GCGGGCAGGAGCCCCAC 1680
DG75_MuLV AF221065 ACTACAGAAGGTAGGAACCACCTAGTCTCTATCGCCAGTTGCTCTTAGCGGGTCTCCAAAACGCGGGCAGGAGCCCCAC 1666
VP62_XMRV DQ399707 ACTACAGAAGGTAGGAACCACCTAGTCTCTA CCGCCAGTTGCTCTTAGCGGGTCTCCAAAACGCGGGCAGGAGCCCCAC 1652
MCF1233_MuLV U13766 ACCCCTGAAGGTAGGAACCACCTAGTTCTCTATCGCCAGTTGCTCTTAGCGGGTCTCCAAAACGCGGGC GAGAGCCCCAC 1679

Majority CAATTTGGCCAAGGTAAGGAATAAACCAGGGACCTAATGAGTCTCCCTCAGCCTTTTATAGAGAGACTCAAGGAGGCCT
1690 1700 1710 1720 1730 1740 1750 1760

JY_MuLV CAATTTGGC TAAGGTAAGGAATAAACCAGGGGTCAA CAGATCCCTCGCCTTTCTAGAGAGACTCAAAGAGGCCT 1760
N417_MuLV HQ246218 CAATTTGGC TAAGGTAAGGAATAAACCAGGGGTCAA CAGATCCCTCGCCTTTCTAGAGAGACTCAAAGAGGCCT 1760
DG75_MuLV AF221065 CAATTTGGCCAAGGTAAGGAATAAACCAGGGACCTAATGAGTCTCCCTCAGCCTTTTATAGAGAGACTCAAGGAGGCCT 1746
VP62_XMRV DQ399707 CAATTTGGCCAAGGTAAGGAATAAACCAGGGACCTAATGAGTCTCCCTCAGCCTTTTATAGAGAGACTCAAGGAGGCCT 1732
MCF1233_MuLV U13766 CAATTTGGCCAAGGTAAGGAATAAACCAGGGACCTAATGAGTCTCCCTCAGCCTTTTAGAGAGACTCAAGGAAGGCCT 1759

Majority ATCGCAGATACACTCCTTATGACCCTGAGGACCCTGGGCAAGAAACCAATGTATCCATGTCATTTCATCTGGCAGTCTGCT
1770 1780 1790 1800 1810 1820 1830 1840

JY_MuLV ATCGCAGATACACTCCTTATGACCCTGAGGACCCTGGGCAAGAAACCAATGTATCCATGTC TTTCATCTGGCAGTCTGCT 1840
N417_MuLV HQ246218 ATCGCAGATACACTCCTTATGACCCTGAGGACCCTGGGCAAGAAACCAATGTATCCATGTC TTTCATCTGGCAGTCTGCT 1840
DG75_MuLV AF221065 ATCGCAG TACACTCCTTATGACCCTGAGGACCCTGGGCAAGAAACCAATGT TTTTCATCTGGCAGTCTGCT 1826
VP62_XMRV DQ399707 ATCGCAG TACACTCCTTATGACCCTGAGGACCCTGGGCAAGAAACCAATGT TTTTCATGTCATTTCATCTGGCAGTCTGCT 1812
MCF1233_MuLV U13766 ATCGCAGATACACTCCTTATGAC TCTGAGGACCCTGGGCAAGAAACCAATGTAT TTTTCATGTCATTTCATCTGGCAGTCTGCT 1839

Majority CCAGACATTGGTCGAAAGTTAGAGCGGTTAGAAGACTTAAAAATAAGACCTTAGGAGACTTAGTGAGAGAAGCXGAAAG
1850 1860 1870 1880 1890 1900 1910 1920

JY_MuLV CCAGACATTGGTCGAAAGTTAGAGCGGTTAGAAGACTTAAAAATAAGACCTTAGGAGACTTAGTGAGAGAAGCAGAAAG 1920
N417_MuLV HQ246218 CCAGACATTGGTCGAAAGTTAGAGCGGTTAGAAGACTTAAAAATAAGACCTTAGGAGACTTAGTGAGAGAAGCAGAAAG 1920
DG75_MuLV AF221065 CCGGATATCGGGCGAAAGTTAGAGCGGTTAGAAGACTTAAAAATAAGACCTTAGGAGACTTAGTGAGAGGAAGCAGAAA 1906
VP62_XMRV DQ399707 CCGGATATCGGGCGAAAGTTAGAGCGGTTAGAAGACTTAAAAATAAGACCTTAGGAGACTTAGTGAGAGGAAGCAGAAA 1892
MCF1233_MuLV U13766 CCAGACATTGGTCGAAAGTTAGAGCGGTTAGAAGACTTAAAAATAAGACCTTAGGAGACTTAGTGAGAGAAGCAGAAAG 1919

Majority GATCTTTAATAAGXGAGAAACCCCAGAAGAGAGAGAAGAACGTATTAGGAGAGAAACAGAGGAAAAAAGAGCGCCGTA
1930 1940 1950 1960 1970 1980 1990 2000

JY_MuLV GATCTTTAATAAGAGAGACCCCAGAAGAGAGAGAAGAACGTATTAAGAGAGAAACAGAGGAAAAAAGAGCGCCGTA 2000
N417_MuLV HQ246218 GATCTTTAATAAGAGAGACCCCAGAAGAGAGAGAAGAACGTATTAAGAGAGAAACAGAGGAAAAAAGAGCGCCGTA 2000
DG75_MuLV AF221065 GATCTTTAATAAGAGAGAAACCCCAGAAAGAGAGAGAACGTATTAGGAGAGAAACAGAGGAAAAAAGAGAACGCGGTA 1986
VP62_XMRV DQ399707 GATCTTTAATAAGAGAGAAACCCCAGAAAGAGAGAGAACGTATTAGGAGAGAAATAGAGGAAAAAAGAGAACGCGGTA 1972
MCF1233_MuLV U13766 GATCTTTAATAAGAGAGAAACTCCAGAGAGAGAGAAGAGCGCTTAGGAGGAGAGACAGAGGAAAAAGAGAGCGCGTA 1999

Majority GGGCAGAGGATGAGCAGAAAGAGAAAGAGAGGGACCGCAGAAGACATAGAGAAATGAGCAAACCTCTTGCCACCGTAGTT
2010 2020 2030 2040 2050 2060 2070 2080

JY_MuLV GGGCAGAGGATGAGCAGAAAGAGAAAGAGAGGGACCGCAGAAGACATAGAGAAATGAGCAAACCTCTTGCCACCGTAGTT 2080
N417_MuLV HQ246218 GGGCAGAGGATGAGCAGAAAGAGAAAGAGAGGGACCGCAGAAGACATAGAGAAATGAGCAAACCTCTTGCCACCGTAGTT 2080
DG75_MuLV AF221065 GGGCAGAGGATGAGCAGAGAGAGAAAGAAAGGGACCGCAGAGACATAGAGAGATGAGCAAGCTCTTGCCACCGTAGTT 2066
VP62_XMRV DQ399707 GGGCAGAGGATGAGCAGAGAGAGAGAAAGGGACCGCAGAAGACATAGAGAGATGAGCAAGCTCTTGCCACCGTAGTT 2052
MCF1233_MuLV U13766 GGGCAGAGAGAGAGCAGAAAGAGAAAGAGAGGGACCGTAGGAGACATAGAGAAATGAGCAAACCTCTTGCCACCGTAGTT 2079

Majority AXTGGTCAGAGACAGGATAGACAGGGGGGAGAGCGAAGGAGGCCCAACTTGATAAGGACCAATGCGCCTACTGCAAAGA
2090 2100 2110 2120 2130 2140 2150 2160

JY_MuLV ACAGGTCAGAGACAGGATAGACAGGGGGGAGAGCGAAGGAGGCCCAACTTGATAAGGACCAATGCGCCTACTGCAAAGA 2160
N417_MuLV HQ246218 ACAGGTCAGAGACAGGATAGACAGGGGGGAGAGCGAAGGAGGCCCAACTTGATAAGGACCAATGCGCCTACTGCAAAGA 2160
DG75_MuLV AF221065 AGTGGACAGAGACAGGATAGACAGGGGGGAGAGCGAAGGAGGCCCAACTTGATAAGGACCAATGCGCCTACTGCAAAGA 2146
VP62_XMRV DQ399707 ATTGGTCAGAGACAGGATAGACAGGGGGGAGAGCGAGGAGGCCCAACTTGATAAGGACCAATGCGCCTACTGCAAAGA 2132
MCF1233_MuLV U13766 AGTGGACAGAGACAGGATAGACAGGGGGGAGAGCGAAGGAGGCCCAACTTGATAAGGACCAATGCGCCTACTGCAAAGA 2159

Majority AAAGGGACACTGGGCTAAGGACTGCCCAAAGAAGCCACGGGGGCCCCGAGGACCGAGGCCCCAGACCTCCCTCCTGACCT
2170 2180 2190 2200 2210 2220 2230 2240

JY_MuLV AAAGGGACACTGGGCTAAGGACTGCCCAAAGAAGCCACGGGGGCCCCGAGGACCGAGGCCCCAGACCTCCCTCCTGACCT 2240
N417_MuLV HQ246218 AAAGGGACACTGGGCTAAGGACTGCCCAAAGAAGCCACGGGGGCCCCGAGGACCGAGGCCCCAGACCTCCCTCCTGACCT 2240
DG75_MuLV AF221065 AAAGGGACACTGGGCTAAGGACTGCCCAAAGAAGCCACGAGGGGCCCGGAGGACCGAGGCCCCAGACCTCCCTCCTGACCT 2226
VP62_XMRV DQ399707 AAAGGGACACTGGGCTAAGGACTGCCCAAAGAAGCCACGAGGGGCCCGGAGGACCGAGGCCCCAGACCTCCCTCCTGACCT 2212
MCF1233_MuLV U13766 AAAGGGACACTGGGCTAAGGACTGCCCAAAGAAGCCACGGGGGCCCCGAGGACCGAGGCCCCAGACCTCCCTCCTGACCT 2239

Majority TAGATGACTAGGGAGG-TCAGGGTCAGGAGCCCCCCCCTGAACCCAGGATAACCCTCACTGTGCGGGGGCAACCCGTAC
2250 2260 2270 2280 2290 2300 2310 2320

JY_MuLV TAGATGACTAGGGAGG-TCAGGGTCAGGAGCCCCCCCCTGAACCCAGGATAACCCTCACTGTGCGGGGGCAACCCGTAC 2319
N417_MuLV HQ246218 TAGATGACTAGGGAGG-TCAGGGTCAGGAGCCCCCCCCTGAACCCAGGATAACCCTCACTGTGCGGGGGCAACCCGTAC 2319
DG75_MuLV AF221065 TAGGTGACTAGGGAGG-TCAGGGTCAGGAGCCCCCCCCTGAACCCAGGATAACCCTCAAGTGTGCGGGGGCAACCCGTAC 2305
VP62_XMRV DQ399707 TAGGTGACTAGGGAGG-TCAGGGTCAGGAGCCCCCCCCTGAACCCAGGATAACCCTCAAGTGTGCGGGGGCAACCCGTAC 2291
MCF1233_MuLV U13766 TAGAGTACTAGGGAGG-TCAGGGTCAGGAGCCCCCCCCTGAACCCAGGATAACCCTCACTGTGCGGGGGCAACCCGTAC 2319

Majority CTTCTGGTGGATACTGGGGCCCAACTCCGTGCTGACCCAAAATCCTGGACCCCTAAGTGACAGGTCTGCCTGGGTCC
2330 2340 2350 2360 2370 2380 2390 2400

JY_MuLV CTTCTGGTGGATACTGGGGCCCAACTCCGTGCTGACCCAAAATCCTGGACCCCTAAGTGACAGGTCTGCCTGGGTCC 2399
N417_MuLV HQ246218 CTTCTGGTGGATACTGGGGCCCAACTCCGTGCTGACCCAAAATCCTGGACCCCTAAGTGACAGGTCTGCCTGGGTCC 2399
DG75_MuLV AF221065 CTTCTGGTAGATACTGGGGCCCAACTCCGTGCTGACCCAAAATCCTGGACCCCTAAGTGACAGGTCTGCCTGGGTCC 2385
VP62_XMRV DQ399707 CTTCTGGTAGATACTGGGGCCCAACTCCGTGCTGACCCAAAATCCTGGACCCCTAAGTGACAGGTCTGCCTGGGTCC 2371
MCF1233_MuLV U13766 CTTCTGGTGGATACTGGGGCCCAACTCCGTGCTGACTCAAATCCGGGCCCCCTAAGTGACAGGTCTGGCTGGGTCC 2399

Majority AAGGGGCTACTGGAGGAAAGCGGTATCGCTGGACCACAGATCGCAAGGTGCACCTGGCTACCGGTAAGGTCACCTACTCT
2410 2420 2430 2440 2450 2460 2470 2480

JY_MuLV AAGGGGCTACTGGAGGAAAGCGGTATCACTGGACCACAGATCGCAAGGTGCACCTGGCTACCGGTAAGGTCACCTACTCT 2479
N417_MuLV HQ246218 AAGGGGCTACTGGAGGAAAGCGGTATCACTGGACCACAGATCGCAAGGTGCACCTGGCTACCGGTAAGGTCACCTACTCT 2479
DG75_MuLV AF221065 AAGGGGCTACTGGAGGAAAGCGGTATCGCTGGACCACGATCGCAAAGTACACCTAGCTACCGGTAAGGTCACCTACTCT 2465
VP62_XMRV DQ399707 AAGGGGCTACTGGAGGAAAGCGGTATCGCTGGACCACGATCGCAAAGTACACTCTGGCTACCGGTAAGGTCACCTACTCT 2451
MCF1233_MuLV U13766 AAGGGGCTACTGGAGGAAAGCGGTATCGCTGGACCACAGATCGCAAGGTGCACCTAGCTACCGGTAAGGTCACCTACTCT 2479

Majority TTCCTCCATGTGCCAGACTGCCCTTATCCTTTGCTAGGAAGAGACTTGTGACTAACTAAAAGCCAGATCCACTTCGA
2490 2500 2510 2520 2530 2540 2550 2560

JY_MuLV TTCCTCCATGTGCCAGACTGCCCTTATCCTTTGCTAGGAAGGACTTGTGACTAAAGTAAAGGCCAGATCCACTTCGA 2559
N417_MuLV HQ246218 TTCCTCCATGTGCCAGACTGCCCTTATCCTTTGCTAGGAAGGACTTGTGACTAAAGTAAAGGCCAGATCCACTTCGA 2559
DG75_MuLV AF221065 TTCCTCCATGTGCCAGACTGCCCTTATCCTTTGCTAGGAAGAGACTTGTGACTAACTAAAAGCCAGATCCACTTCGA 2545
VP62_XMRV DQ399707 TTCCTCCATGTGCCAGACTGCCCTTATCCTTTGCTAGGAAGAGACTTGTGACTAACTAAAAGCCAGATCCACTTCGA 2531
MCF1233_MuLV U13766 TTCCTCCATGTGCCAGACTGCCCTTATCCTTTGCTAGGAAGAGACTTGTGACTAACTAAAAGCCAGATCCACTTCGA 2559

Majority GGGATCGGGAGCTCAGTTGTGGGACCAAAGGACAGCCCCTGCAGGTGTTGACCCTTGGCATAGAGGATGAGTATCGGC
2570 2580 2590 2600 2610 2620 2630 2640

JY_MuLV GGGATCGGGAGCTCAGTTGTGGGACCAAAGGACAGCCCCTGCAGGTGTTGACCCTTGGCATAGAGGATGAGTATCGGC 2639
N417_MuLV HQ246218 GGGATCGGGAGCTCAGTTGTGGGACCAAAGGACAGCCCCTGCAGGTGTTGACCCTTGGCATAGAGGATGAGTATCGGC 2639
DG75_MuLV AF221065 GGGATCAGGAGCTCAGTTGTAGGACCAATGGGACAGCCCCTGCAAGTGTGACCCATAATATAGAGGATGAGTATCGGC 2625
VP62_XMRV DQ399707 GGGATCAGGAGCTCAGTTGTGGGACCAATGGGACAGCCCCTGCAAGTGTGACCCAGTAAATCATAGAGATGAGTATCGGC 2611
MCF1233_MuLV U13766 GGGATCGGGAGCTCAGTTGTGGGACCAAAGGACAGCCCCTGCAGGTGTTGACCCTTGGCATAGAGGATGAGTATCGGC 2639

Majority TACATGAGACCTCAACAGAGCCGGATGTTTCTCTAGGGTCCACCTGGCTTTCTGACTTTCCCAGGCCTGGGCAGAAACC
2650 2660 2670 2680 2690 2700 2710 2720

JY_MuLV TACATGAGACCTCAACAGAGCCGGATGTTTCTCTAGGGTCCACCTGGCTTTCTGACTTTCCCAGGCCTGGGCAGAAACC 2719
N417_MuLV HQ246218 TACATGAGACCTCAACAGAGCCGGATGTTTCTCTAGGGTCCACCTGGCTTTCTGACTTTCCCAGGCCTGGGCAGAAACC 2719
DG75_MuLV AF221065 TACATGAGACCTCAACAGAGCCGGATGTTTCTCTAGGGTCCACCTGGCTTTCTGACTTTCCCAGGCCTGGGCAGAAACC 2705
VP62_XMRV DQ399707 TACATGATACAGGAAAGAGCCAGATGTTTCTCTAGGGTCCACCTGGCTTTCTGACTTTCCCAGGCCTGGGCAGAAACC 2691
MCF1233_MuLV U13766 TACATGAGACCTCAACAGAGCCGGATGTTTCTCTAGGGTCCACCTGGCTTTCTGACTTTCCCAGGCCTGGGCAGAAACC 2719

Majority GGGGGCATGGGACTGGCAGTTCGCCAAGCGCCTCTGATTATACCTCTAAGGCAACCTCCACCCCTGTGTCCATCAAACA
2730 2740 2750 2760 2770 2780 2790 2800

JY_MuLV GGGGGCATGGGACTGGCAGTTCGCCAAGCGCCTCTGATTATACCTCTAAGGCAACCTCCACCCCTGTGTCCATCAAACA 2799
N417_MuLV HQ246218 GGGGGCATGGGACTGGCAGTTCGCCAAGCGCCTCTGATTATACCTCTAAGGCAACCTCCACCCCTGTGTCCATCAAACA 2799
DG75_MuLV AF221065 GGGGCATGGGACTGGCAGTTCGCCAAGCGCCTCTGATTATACCTCTAAGGCAACCTCCACCCCTGTGTCCATCAAACA 2785
VP62_XMRV DQ399707 GGGGGCATGGGACTGGCAGTTCGCCAAGCGCCTCTGATTATACCTCTAAGGCAACCTCCACCCCTGTGTCCATCAAACA 2771
MCF1233_MuLV U13766 GGGGGCATGGGACTGGCAGTTCGCCAAGCGCCTCTGATTATACCTCTAAGGCAACCTCCACCCCTGTGTCCATCAAACA 2799

Majority GTACCCCATGTCACACGAAGCCAGACTGGGGATCAAGCCCCACATACAGAGACTGTTGGACCAGGGAATATTGGTACCTT
2810 2820 2830 2840 2850 2860 2870 2880

JY_MuLV GTACCCCATGTCACACGAAGCCAGACTGGGGATCAAGCCCCACATACAGAGACTGTTGGACCAGGGAATATTGGTACCTT 2879
N417_MuLV HQ246218 GTACCCCATGTCACACGAAGCCAGACTGGGGATCAAGCCCCACATACAGAGACTGTTGGACCAGGGAATATTGGTACCTT 2879
DG75_MuLV AF221065 ATACCCCATGTCACAGGAAGCCAGACTGGGGATCAAGCCCCACATACAGAGACTGTTGGACCAGGGAATATTGGTACCTT 2865
VP62_XMRV DQ399707 ATACCCCATGTCACAGGAAGCCAGACTGGGGATCAAGCCCCACATACAGAGACTGTTGGACCAGGGAATATTGGTACCTT 2851
MCF1233_MuLV U13766 GTACCCCATGTCACACGAAGCCAGACTGGGGATCAAGCCCCACATACAGAGACTGTTGGACCAGGGAATATTGGTACCTT 2879

Majority GCCAGTCCCCTGGAACACACCCCTGCTGCCCGTTAAGAAACCAGGGACTAATGATTACAGGCCTGTCCAGGATCTGAGA
2890 2900 2910 2920 2930 2940 2950 2960

JY_MuLV GCCAGTCCCCTGGAACACACCCCTGCTGCCCGTTAAGAAACCAGGGACTAATGATTACAGGCCTGTCCAGGATCTGAGA 2959
N417_MuLV HQ246218 GCCAGTCCCCTGGAACACACCCCTGCTGCCCGTTAAGAAACCAGGGACTAATGATTACAGGCCTGTCCAGGATCTGAGA 2959
DG75_MuLV AF221065 GCCAGTCCCCTGGAACACACCCCTGCTGCCCGTTAAGAAACCAGGGACTAATGATTACAGGCCTGTCCAGGATCTGAGA 2945
VP62_XMRV DQ399707 GCCAGTCCCCTGGAACACACCCCTGCTGCCCGTTAAGAAACCAGGGACTAATGATTACAGGCCTGTCCAGGATCTGAGA 2931
MCF1233_MuLV U13766 GCCAGTCCCCTGGAACACACCCCTGCTGCCCGTTAAGAAACCAGGGACTAATGATTACAGGCCTGTCCAGGATCTGAGA 2959

Majority GAAGTCAACAAGCGGGTGAAGATATCCACCCACCCTGCCCCAATCCTTACAACCTCTTAAGTGGACTCCCTCCGTCCA
2970 2980 2990 3000 3010 3020 3030 3040

JY_MuLV GAAGTCAACAAGCGGGTGAAGATATCCACCCACCCTGCCCCAATCCTTACAACCTCTTAAGTGGACTCCCTCCGTCCA 3039
N417_MuLV HQ246218 GAAGTCAACAAGCGGGTGAAGATATCCACCCACCCTGCCCCAATCCTTACAACCTCTTAAGTGGACTCCCTCCGTCCA 3039
DG75_MuLV AF221065 GAAGTCAACAAGCGGGTGAAGATATCCACCCACCCTGCCCCAATCCTTACAACCTCTTAAGTGGACTCCCTCCGTCCA 3025
VP62_XMRV DQ399707 GAAGTCAACAAGCGGGTGAAGATATCCACCCACCCTGCCCCAATCCTTACAACCTCTTAAGTGGACTCCCTCCGTCCA 3011
MCF1233_MuLV U13766 GAAGTCAACAAGCGGGTGAAGATATCCACCCACCCTGCCCCAATCCTTACAACCTCTTAAGTGGACTCCCTCCGTCCA 3039

Majority CCAGTGGTACACTGTGCTTGATTTAAAAGATGCCTTTTTCTGCCTGAGACTCCACCCACCAGTCAGCCTCTCTTTGCCT
3050 3060 3070 3080 3090 3100 3110 3120

JY_MuLV CCAGTGGTACACTGTGCTTGATTTAAAAGATGCCTTTTTCTGCCTGAGACTCCACCCACCAGTCAGCCTCTCTTTGCCT 3119
N417_MuLV HQ246218 CCAGTGGTACACTGTGCTTGATTTAAAAGATGCCTTTTTCTGCCTGAGACTCCACCCACCAGTCAGCCTCTCTTTGCCT 3119
DG75_MuLV AF221065 CCAGTGGTACACTGTGCTTGATTTAAAAGATGCCTTTTTCTGCCTGAGACTCCACCCACCAGTCAGCCTCTCTTTGCCT 3105
VP62_XMRV DQ399707 CCAGTGGTACACTGTGCTTGATTTAAAAGATGCCTTTTTCTGCCTGAGACTCCACCCACCAGTCAGCCTCTCTTTGCCT 3091
MCF1233_MuLV U13766 CCAGTGGTACACTGTGCTTGATTTAAAAGATGCCTTTTTCTGCCTGAGACTCCACCCACCAGTCAGCCTCTCTTTGCCT 3119

Majority TTGAGTGGAGAGATCCAGAAATGGGAATCTCTGGACAATTGACCTGGACCAGACTCCACAGGGTTTCAAAAACAGTCCC
3130 3140 3150 3160 3170 3180 3190 3200

JY_MuLV TTGAGTGGAGAGATCCAGAAATGGGAATCTCTGGACAATTGACCTGGACCAGACTCCACAGGGTTTCAAAAACAGTCCC 3199
N417_MuLV HQ246218 TTGAGTGGAGAGATCCAGAAATGGGAATCTCTGGACAATTGACCTGGACCAGACTCCACAGGGTTTCAAAAACAGTCCC 3199
DG75_MuLV AF221065 TTGAGTGGAGAGATCCAGAAATGGGAATCTCTGGACAATTGACCTGGACCAGACTCCACAGGGTTTCAAAAACAGTCCC 3185
VP62_XMRV DQ399707 TTGAGTGGAGAGATCCAGAAATGGGAATCTCTGGACAATTGACCTGGACCAGACTCCACAGGGTTTCAAAAACAGTCCC 3171
MCF1233_MuLV U13766 TTGAGTGGAGAGATCCAGAAATGGGAATCTCTGGACAATTGACCTGGACCAGACTCCACAGGGTTTCAAAAACAGTCCC 3199

Majority ACCCTGTTTGATGAGGCATTGCACAGAGACCTAGCAGACTTCCGGATCCAGCACCCAGACTTGATCCTGCTACAGTACGT
3210 3220 3230 3240 3250 3260 3270 3280

JY_MuLV ACCCTGTTTGATGAGGCATTGCACAGAGACCTAGCAGACTTCCGGATCCAGCACCCAGACTTGATCCTGCTACAGTACGT 3279
N417_MuLV HQ246218 ACCCTGTTTGATGAGGCATTGCACAGAGACCTAGCAGACTTCCGGATCCAGCACCCAGACTTGATCCTGCTACAGTACGT 3279
DG75_MuLV AF221065 ACCCTGTTTGATGAGGCATTGCACAGAGACCTAGCAGACTTCCGGATCCAGCACCCAGACTTGATCCTGCTACAGTACGT 3265
VP62_XMRV DQ399707 ACCCTGTTTGATGAGGCATTGCACAGAGACCTAGCAGACTTCCGGATCCAGCACCCAGACTTGATCCTGCTACAGTACGT 3251
MCF1233_MuLV U13766 ACCCTGTTTGATGAGGCATTGCACAGAGACCTAGCAGACTTCCGGATCCAGCACCCAGACTTGATCCTGCTACAGTACGT 3279

Majority GGATGACTTACTGCTGGCCGCTACTTCCGAAGTACTGCCAACAAGGACTCGGGCCCTTCTACAAACCTAGGGGACC
3290 3300 3310 3320 3330 3340 3350 3360

JY_MuLV GGATGACTTACTGCTGGCCGCTACTTCCGAAGTACTGCCAACAAGGACTCGGGCCCTTCTACAAACCTAGGGGACC 3359
N417_MuLV HQ246218 GGATGACTTACTGCTGGCCGCTACTTCCGAAGTACTGCCAACAAGGACTCGGGCCCTTCTACAAACCTAGGGGACC 3359
DG75_MuLV AF221065 GGATGACTTACTGCTGGCCGCTACTTCCGAAGTACTGCCAACAAGGACTCGGGCCCTTCTACAAACCTAGGGGACC 3345
VP62_XMRV DQ399707 GGATGACTTACTGCTGGCCGCTACTTCCGAAGTACTGCCAACAAGGACTCGGGCCCTTCTACAAACCTAGGGGACC 3331
MCF1233_MuLV U13766 GGATGACTTACTGCTGGCCGCTACTTCCGAAGTACTGCCAACAAGGACTCGGGCCCTTCTACAAACCTAGGGGACC 3359

Majority TCGGATACCGGGCCTCGGCCAAGAAAGCCCAAATCTGCCAGAAACAGGTTAAATACCTGGGGTACCTTCTGAGGGAGGGT
3370 3380 3390 3400 3410 3420 3430 3440

JY_MuLV TCGGATACCGGGCCTCGGCCAAGAAAGCCCAAATCTGCCAGAAACAGGTTAAATACCTGGGGTACCTTCTGAGGGAGGGT 3439
N417_MuLV HQ246218 TCGGATACCGGGCCTCGGCCAAGAAAGCCCAAATCTGCCAGAAACAGGTTAAATACCTGGGGTACCTTCTGAGGGAGGGT 3439
DG75_MuLV AF221065 TCGGGTA CGGGCCTCGGCCAAGAAAGCCCAAATCTGCCAGAAACAGGTTAAATACCTGGGGTACCTTCTGAGGGAGGGT 3425
VP62_XMRV DQ399707 TCGGGTA CGGGCCTCGGCCAAGAAAGCCCAAATCTGCCAGAAACAGGTTAAATACCTGGGGTACCTTCTGAGGGAGGGT 3411
MCF1233_MuLV U13766 TCGGATACCGGGCCTCGGCCAAGAAAGCCCAAATCTGCCAGAAACAGGTTAAATACCTGGGGTACCTTCTGAGGGAGGGT 3439

Majority CAGAGATGGCTGACTGAGGCTAGAAAAGAGACTGTGATGGGGCAACCCGTTCAAAGACTCCTCGACAATAAGGGAGTT
3450 3460 3470 3480 3490 3500 3510 3520

JY_MuLV CAGAGATGGCTGACTGAGGCTAGAAAAGAGACTGTGATGGGGCAACCCGTTCAAAGACTCCTCGACAATAAGGGAGTT 3519
N417_MuLV HQ246218 CAGAGATGGCTGACTGAGGCTAGAAAAGAGACTGTGATGGGGCAACCCGTTCAAAGACTCCTCGACAATAAGGGAGTT 3519
DG75_MuLV AF221065 CAGAGATGGCTGACTGAGGC CAGAAAAGAGACTGTGATGGGGCAACCCGTTCAAAGACTCCTCGACAATAAGGGAGTT 3505
VP62_XMRV DQ399707 CAGAGATGGCTGACTGAGGC CAGAAAAGAGACTGTGATGGGGCAACCCGTTCAAAGACTCCTCGACAATAAGGGAGTT 3491
MCF1233_MuLV U13766 CAGAGATGGCTGACTGAGGCTAGAAAAGAGACTGTGATGGGGCAACCCGTTCAAAGACTCCTCGACAATAAGGGAGTT 3519

Majority CCTAGGGACGGCAGGCTTCTGCCGCCTCTGGATCCCTGGGTTTGCAGAAATGGCGGCCCCCTTGTATCCTCTTACCAAAA
3530 3540 3550 3560 3570 3580 3590 3600

JY_MuLV CCTAGGGACGGCAGGCTTCTGCCGCCTCTGGATCCCTGGGTTTGCAGAAATGGCGGCCCCCTTGTATCCTCTTACCAAAA 3599
N417_MuLV HQ246218 CCTAGGGACGGCAGGCTTCTGCCGCCTCTGGATCCCTGGGTTTGCAGAAATGGCGGCCCCCTTGTATCCTCTTACCAAAA 3599
DG75_MuLV AF221065 CCTAGGGACGGCAGGCTTCTGTCGCCTCTGGATCCCTGGGTTTGCAGAAATGGCGGCCCCCTTGTATCCTCTTACCAAAA 3585
VP62_XMRV DQ399707 CCTAGGGACGGCAGGCTTCTGTCGCCTCTGGATCCCTGGGTTTGCAGAAATGGCGGCCCCCTTGTATCCTCTTACCAAAA 3571
MCF1233_MuLV U13766 CCTAGGGACGGCAGGCTTCTGCCGCCTCTGGATCCCTGGGTTTGCAGAAATGGCGGCCCCCTTGTATCCTCTTACCAAAA 3599

Majority CGGGGACTCTGTTTAATTGGGGCCCAGACCAGCAAAGGCCTATCAAGAAATCAAACAGGCCCTTCTAACTGCCCCGCC
3610 3620 3630 3640 3650 3660 3670 3680

JY_MuLV CGGGGACTCTGTTTAATTGGGGCCCAGACCAGCAAAGGCCTATCAAGAAATCAAACAGGCCCTTCTAACTGCCCCGCC 3679
N417_MuLV HQ246218 CGGGGACTCTGTTTAATTGGGGCCCAGACCAGCAAAGGCCTATCAAGAAATCAAACAGGCCCTTCTAACTGCCCCGCC 3679
DG75_MuLV AF221065 CGGGGACTCTGTTTAATTGGGGCCCAGACCAGCAAAGGCCTATCAAGAAATCAAACAGGCCCTTCTAACTGCCCCGCC 3665
VP62_XMRV DQ399707 CGGGGACTCTGTTTAATTGGGGCCCAGACCAGCAAAGGCCTATCAAGAAATCAAACAGGCCCTTCTAACTGCCCCGCC 3651
MCF1233_MuLV U13766 CGGGGACTCTGTTTAATTGGGGCCCAGACCAGCAAAGGCCTATCAAGAAATCAAACAGGCCCTTCTAACTGCCCCGCC 3679

Majority CTGGGATTGCCAGATTTGACTAAGCCCTTTGAACTCTTTGTCGACGAGAAGCAGGGCTACGCCAAAGGCGTCTAACGCA
3690 3700 3710 3720 3730 3740 3750 3760

JY_MuLV CTGGGATTGCCAGATTTGACTAAGCCCTTTGAACTCTTTGTCGACGAGAAGCAGGGCTACGCCAAAGGCGTCTAACGCA 3759
N417_MuLV HQ246218 CTGGGATTGCCAGATTTGACTAAGCCCTTTGAACTCTTTGTCGACGAGAAGCAGGGCTACGCCAAAGGCGTCTAACGCA 3759
DG75_MuLV AF221065 CTGGGATTGCCAGATTTGACTAAGCCCTTTGAACTCTTTGTCGACGAGAAGCAGGGCTACGCCAAAGGCGTCTAACGCA 3745
VP62_XMRV DQ399707 CTGGGATTGCCAGATTTGACTAAGCCCTTTGAACTCTTTGTCGACGAGAAGCAGGGCTACGCCAAAGGCGTCTAACGCA 3731
MCF1233_MuLV U13766 CTGGGATTGCCAGATTTGACTAAGCCCTTTGAACTCTTTGTCGACGAGAAGCAGGGCTACGCCAAAGGCGTCTAACGCA 3756

Majority AAAACTGGGACCTTGGCGTCGGCCTGTGGCCTACCTGTCCAAAAGCTAGACCCAGTGGCAGCTGGGTGGCCCCCTTGCC
3770 3780 3790 3800 3810 3820 3830 3840

JY_MuLV AAAACTGGGACCTTGGCGTCGGCCTGTGGCCTACCTGTCCAAAAGCTAGACCCAGTGGCAGCTGGGTGGCCCCCTTGCC 3839
N417_MuLV HQ246218 AAAACTGGGACCTTGGCGTCGGCCTGTGGCCTACCTGTCCAAAAGCTAGACCCAGTGGCAGCTGGGTGGCCCCCTTGCC 3839
DG75_MuLV AF221065 AAAACTGGGACCTTGGCGTCGGCCTGTGGCCTACCTGTCCAAAAGCTAGACCCAGTGGCAGCTGGGTGGCCCCCTTGCC 3825
VP62_XMRV DQ399707 AAAACTGGGACCTTGGCGTCGGCCTGTGGCCTACCTGTCCAAAAGCTAGACCCAGTGGCAGCTGGGTGGCCCCCTTGCC 3811
MCF1233_MuLV U13766 AAAACTGGGACCTTGGCGTCGGCCTGTGGCCTACCTGTCCAAAAGCTAGACCCAGTGGCAGCTGGGTGGCCCCCTTGCC 3836

Majority TACGGATGGTAGCAGCCATTGCCGTTCTGACAAAAGATGCAGGCAAGCTAACTATGGGACAGCCGCTAGTCATCCTGGCC
3850 3860 3870 3880 3890 3900 3910 3920

JY_MuLV TACGGATGGTAGCAGCCATTGCCGTTCTGACAAAAGATGCAGGCAAGCTAACTATGGGACAGCCGCTAGTCATCCTGGCC 3919
N417_MuLV HQ246218 TACGGATGGTAGCAGCCATTGCCGTTCTGACAAAAGATGCAGGCAAGCTAACTATGGGACAGCCGCTAGTCATCCTGGCC 3919
DG75_MuLV AF221065 TACGGATGGTAGCAGCCATTGCCGTTCTGACAAAAGATGCAGGCAAGCTAACTATGGGACAGCCGCTAGTCATCCTGGCC 3905
VP62_XMRV DQ399707 TACGGATGGTAGCAGCCATTGCCGTTCTGACAAAATGCAGGCAAGCTAACTATGGGACAGCCGCTAGTCATCTGGCC 3891
MCF1233_MuLV U13766 TACGGATGGTAGCAGCCATTGCCGTTCTGACAAAAGATGCAGGCAAGCTAACTATGGGACAGCCGCTAGTCATCCTGGCC 3916

Majority CCCCATGCAGTAGAGGCACTGGTCAAGCAACCCCTGACCGCTGGCTATCCAACGCCCGCATGACCCACTACCAGGCAAT
3930 3940 3950 3960 3970 3980 3990 4000

JY_MuLV CCCCATGCAGTAGAGGCACTGGTCAAGCAACCCCTGACCGCTGGCTATCCAACGCCCGCATGACCCACTACCAGGCAAT 3999
N417_MuLV HQ246218 CCCCATGCAGTAGAGGCACTGGTCAAGCAACCCCTGACCGCTGGCTATCCAACGCCCGCATGACCCACTACCAGGCAAT 3999
DG75_MuLV AF221065 CCCCATGCAGTAGAGGCACTGGTCAAGCAACCCCTGACCGCTGGCTATCCAAGGCCCGCATGACCCACTACCAGGCAAT 3985
VP62_XMRV DQ399707 CCCCATGCAGTAGAGGCACTGGTCAAGCAACCCCTGACCGCTGGCTATCCAAGGCCCGCATGACCCACTACCAGGCAAT 3971
MCF1233_MuLV U13766 CCCCATGCAGTAGAGGCACTGGTCAAGCAACCCCTGACCGCTGGCTATCCAACGCCCGCATGACCCACTACCAGGCAAT 3996

Majority GTCCTAGACACTGACCGAGTTCAGTTCGGACCAGTGGTGGCCCTCAATCCTGCCACCTTGCTCCCTCTACCGGAAAAAG
4010 4020 4030 4040 4050 4060 4070 4080

JY_MuLV GTCCTAGACACTGACCGAGTTCAGTTCGGACCAGTGGTGGCCCTCAATCCTGCCACCTTGCTCCCTCTACCGGAAAAAG 4079
N417_MuLV HQ246218 GTCCTAGACACTGACCGAGTTCAGTTCGGACCAGTGGTGGCCCTCAATCCTGCCACCTTGCTCCCTCTACCGGAAAAAG 4079
DG75_MuLV AF221065 GTCCTAGACACTGACCGAGTTCAGTTCGGACCAGTGGTGGCCCTCAATCCTGCCACCTTGCTCCCTCTACCGGAAAAAG 4065
VP62_XMRV DQ399707 GTCCTAGACACTGACCGAGTTCAGTTCGGACCAGTGGTGGCCCTCAATCCTGCCACCTTGCTCCCTCTACCGGAAAAAG 4051
MCF1233_MuLV U13766 GTCCTAGACACTGACCGAGTTCAGTTCGGACCAGTGGTGGCCCTCAATCCTGCCACCTTGCTCCCTCTACCGGAAAAAG 4076

Majority GAGCCCCCATGATTGCCTCGAGATCTTGCTGAAACGCATGGAACCAGACCGGATCTCACCGACCAGCCCATCCCAGAC
4090 4100 4110 4120 4130 4140 4150 4160

JY_MuLV GAGCCCCCATGATTGCCTCGAGATCTTGCTGAAACGCATGGAACCAGACCGGATCTCACCGACCAGCCCATCCCAGAC 4159
N417_MuLV HQ246218 GAGCCCCCATGATTGCCTCGAGATCTTGCTGAAACGCATGGAACCAGACCGGATCTCACCGACCAGCCCATCCCAGAC 4159
DG75_MuLV AF221065 GAGCCCCCATGATTGCCTCGAGATCTTGCTGAAACGCATGGAACCAGACCGGATCTCACCGACCAGCCCATCCCAGAC 4145
VP62_XMRV DQ399707 GAGCCCCCATGATTGCCTCGAGATCTTGCTGAAACGCATGGAACCAGACCGGATCTCACCGACCAGCCCATCCCAGAC 4131
MCF1233_MuLV U13766 GAGCCCCCATGATTGCCTCGAGATCTTGCTGAAACGCATGGAACCAGACCGGATCTCACCGACCAGCCCATCCCAGAC 4156

Majority GCCGACCACACCTGGTATACCGATGGGAGCAGCTTTCTGCAAGAAGGACAGCGAAAGGCTGGGGCAGCAGTGACGACTGA
4170 4180 4190 4200 4210 4220 4230 4240

JY_MuLV GCCGACCACACCTGGTATACCGATGGGAGCAGCTTTCTGCAAGAAGGACAGCGAAAGGCTGGGGCAGCAGTGACGACTGA 4239
N417_MuLV HQ246218 GCCGACCACACCTGGTATACCGATGGGAGCAGCTTTCTGCAAGAAGGACAGCGAAAGGCTGGGGCAGCAGTGACGACTGA 4239
DG75_MuLV AF221065 GCCGACCACACCTGGTATACCGATGGGAGCAGCTTTCTGCAAGAAGGACAGCGAAAGGCTGGGGCAGCAGTGACGACTGA 4225
VP62_XMRV DQ399707 GCCGACCACACCTGGTATACCGATGGGAGCAGCTTTCTGCAAGAAGGACAGCGAAAGGCTGGGGCAGCAGTGACGACTGA 4211
MCF1233_MuLV U13766 GCCGACCACACCTGGTATACCGATGGGAGCAGCTTTCTGCAAGAAGGACAGCGAAAGGCTGGGGCAGCAGTGACGACTGA 4236

Majority GACCGAGGTAATCTGGGCGAGGGCCCTGCCAGCTGGAACGTCAGCCAGCGAGCCGAAGTATCGCACTCACCCAAGCCC
4250 4260 4270 4280 4290 4300 4310 4320

JY_MuLV AACCGAGGTAATCTGGGCGAGGGCCCTGCCAGCTGGAACGTCAGCCAGCGAGCCGAAGTATCGCACTCACCCAAGCCC 4319
N417_MuLV HQ246218 AACCGAGGTAATCTGGGCGAGGGCCCTGCCAGCTGGAACGTCAGCCAGCGAGCCGAAGTATCGCACTCACCCAAGCCC 4319
DG75_MuLV AF221065 GACCGAGGTAATCTGGGCGAGGGCCCTGCCAGCTGGAACGTCAGCCAGCGAGCCGAAGTATCGCACTCACCCAAGCCC 4305
VP62_XMRV DQ399707 GACCGAGGTAATCTGGGCGAGGGCCCTGCCAGCTGGAACGTCAGCCAGCGAGCCGAAGTATCGCACTCACCCAAGCCC 4291
MCF1233_MuLV U13766 GACCGAGGTAATCTGGGCGAGGGCCCTGCCAGCTGGAACGTCAGCCAGCGAGCCGAAGTATCGCACTCACCCAAGCCC 4316

Majority
TGAAATGGCAGAAGTAAGAAGCTAAATGTTTACTGATAGCCGCTATGCCTTCGCCACGGCCCATGTCCATGGAGAA
4330 4340 4350 4360 4370 4380 4390 4400

JY_MuLV TGAAATGGCAGAAGTAAGAAGCTAAATGTTTACTGATAGCCGCTATGCCTTCGCCACGGCCCATGTCCATGGAGAA 4399
N417_MuLV HQ246218 TGAAATGGCAGAAGTAAGAAGCTAAATGTTTACTGATAGCCGCTATGCCTTCGCCACGGCCCATGTCCATGGAGAA 4399
DG75_MuLV AF221065 TAAAAATGGCAGAAGTAAGAAGCTAAATGTTTACTGATAGCCGCTATGCCTTCGCCACGGCCCATGTCCATGGAGAA 4385
VP62_XMRV DQ399707 TAAAGATGGCAGAAGTAAGAAGCTAAATGTTTACTGATAGCCGCTATGCCTTCGCCACGGCCCATGTCCATGGAGAA 4371
MCF1233_MuLV U13766 TGAAATGGCAGAAGTAAGAAGCTAAATGTTTACTGATAGCCGCTATGCCTTCGCCACGGCCCATGTCCATGGAGAA 4396

Majority
ATATATAGGAGCGAGGGTTGCTGACCTCAGAAGGCAGAGAAATCAAAAACAAGAGCGAGATCCTGGCCTTGCTGAAAAGC
4410 4420 4430 4440 4450 4460 4470 4480

JY_MuLV ATATATAGGAGCGAGGGTTGCTGACCTCAGAAGGCAGAGAAATCAAAAACAAGAGCGAGATCCTGGCCTTGCTGAAAAGC 4479
N417_MuLV HQ246218 ATATATAGGAGCGAGGGTTGCTGACCTCAGAAGGCAGAGAAATCAAAAACAAGAGCGAGATCCTGGCCTTGCTGAAAAGC 4479
DG75_MuLV AF221065 ATATATAGGAGCGAGGGTTGCTGACCTCAGAAGGCAGAGAAATCAAAAACAAGAGCGAGATCCTGGCCTTGCTGAAAAGC 4465
VP62_XMRV DQ399707 ATATATAGGAGCGAGGGTTGCTGACCTCAGAAGGCAGAGAAATCAAAAACAAGAGCGAGATCCTGGCCTTGCTGAAAAGC 4451
MCF1233_MuLV U13766 ATATATAGGAGCGAGGGTTGCTGACCTCAGAAGGCAGAGAAATCAAAAACAAGAGCGAGATCCTGGCCTTGCTGAAAAGC 4476

Majority
TCTCTTTCTGCCAAGAGACTCAGTATAATCCACTGCCAGGACATCAAAAAGGAGACAGTGCCGAAGCCAGAGGCAACC
4490 4500 4510 4520 4530 4540 4550 4560

JY_MuLV TCTCTTTCTGCCAAGAGACTCAGTATAATCCACTGCCAGGACATCAAAAAGGAGACAGTGCCGAAGCCAGAGGCAACC 4559
N417_MuLV HQ246218 TCTCTTTCTGCCAAGAGACTCAGTATAATCCACTGCCAGGACATCAAAAAGGAGACAGTGCCGAAGCCAGAGGCAACC 4559
DG75_MuLV AF221065 TCTCTTTCTGCCAAGAGACTCAGTATAATCCACTGCCAGGACATCAAAAAGGAGACAGTGCCGAAGCCAGAGGCAACC 4545
VP62_XMRV DQ399707 TCTCTTTCTGCCAAGAGACTCAGTATAATCCACTGCCAGGACATCAAAAAGGAGACAGTGCCGAAGCCAGAGGCAACC 4531
MCF1233_MuLV U13766 TCTCTTTCTGCCAAGAGACTCAGTATAATCCACTGCCAGGACATCAAAAAGGAGACAGTGCCGAAGCCAGAGGCAACC 4556

Majority
GTATGGCAGACCAAGCGGCCGAGAGGCAGCCATAAAGACAGTTCCAGAAACCTCTACTCCTTATAGAGGACTCGACC
4570 4580 4590 4600 4610 4620 4630 4640

JY_MuLV GTATGGCAGACCAAGCGGCCGAGAGGCAGCCATAAAGACAGTTCCAGAAACCTCTACTCCTTATAGAGGACTCGACC 4639
N417_MuLV HQ246218 GTATGGCAGACCAAGCGGCCGAGAGGCAGCCATAAAGACAGTTCCAGAAACCTCTACTCCTTATAGAGGACTCGACC 4639
DG75_MuLV AF221065 GTATGGCAGACCAAGCGGCCGAGAGGCAGCCATAAAGACAGTTCCAGAAACCTCTACTCCTTATAGAGGACTCGACC 4625
VP62_XMRV DQ399707 GTATGGCAGACCAAGCGGCCGAGAGGCAGCCATAAAGACAGTTCCAGAAACCTCTACTCCTTATAGAGGACTCGACC 4611
MCF1233_MuLV U13766 GTATGGCAGACCAAGCGGCCGAGAGGCAGCCATAAAGACAGTTCCAGAAACCTCTACTCCTTATAGAGGACTCGACC 4636

Majority
CCGTATACGCCTGCCTATTTCCATTACACCGAAACAGATCTAAAAGATTXCGAGAAGTGGGGGCCACCTATAATCAGAT
4650 4660 4670 4680 4690 4700 4710 4720

JY_MuLV CCGTATACGCCTGCCTATTTCCATTACACCGAAACAGATCTAAAAGATTXCGAGAAGTGGGGGCCACCTATAATCAGAT 4719
N417_MuLV HQ246218 CCGTATACGCCTGCCTATTTCCATTACACCGAAACAGATCTAAAAGATTXCGAGAAGTGGGGGCCACCTATAATCAGAT 4719
DG75_MuLV AF221065 CCGTATACGCCTGCCTATTTCCATTACACCGAAACAGATCTAAAAGATTXCGAGAAGTGGGGGCCACCTATAATCAGAT 4705
VP62_XMRV DQ399707 CCGTATACGCCTGCCTATTTCCATTACACCGAAACAGATCTAAAAGATTXCGAGAAGTGGGGGCCACCTATAATCAGAT 4691
MCF1233_MuLV U13766 CCGTATACGCCTGCCTATTTCCATTACACCGAAACAGATCTAAAAGATTXCGAGAAGTGGGGGCCACCTATAATCAGAT 4716

Majority
AAAAGGATATTGGTCTACAAGGCAAGCCGGTGATGCCGATCAGTTTGTGTTTGAAGTATTAGACTCCCTCACAGAC
4730 4740 4750 4760 4770 4780 4790 4800

JY_MuLV AAAAGGATATTGGTCTACAAGGCAAGCCGGTGATGCCGATCAGTTTGTGTTTGAAGTATTAGACTCCCTCACAGAC 4799
N417_MuLV HQ246218 AAAAGGATATTGGTCTACAAGGCAAGCCGGTGATGCCGATCAGTTTGTGTTTGAAGTATTAGACTCCCTCACAGAC 4799
DG75_MuLV AF221065 AAAAGGATATTGGTCTACAAGGCAAGCCGGTGATGCCGATCAGTTTGTGTTTGAAGTATTAGACTCCCTCACAGAC 4785
VP62_XMRV DQ399707 AAAAGGATATTGGTCTACAAGGCAAGCCGGTGATGCCGATCAGTTTGTGTTTGAAGTATTAGACTCCCTCACAGAC 4771
MCF1233_MuLV U13766 AAAAGGATATTGGTCTACAAGGCAAGCCGGTGATGCCGATCAGTTTGTGTTTGAAGTATTAGACTCCCTCACAGAC 4796

Majority TCACCCATCTCAGCCCTCAAAGATGAAGGCACTCCTTGACAGAGAAGAAAGCCCCCTACTACATGTTAAACAGGGACAGA
4810 4820 4830 4840 4850 4860 4870 4880

JY_MuLV TCACCCATCTCAGCCCTCAAAGATGAAGGCTCCTTGACAGAGAAGAAAGCCCCCTACTACATGTTAAACAGGGACAGA 4879
N417_MuLV HQ246218 TCACCCATCTCAGCCCTCAAAGATGAAGGCTCCTTGACAGAGAAGAAAGCCCCCTACTACATGTTAAACAGGGACAGA 4879
DG75_MuLV AF221065 TCACCTCAGCCCTCAAAGATGAAGGCACTCCTTGACAGAGAAGAAAGCCCCCTACTACATGTTAAACAGGGACAGA 4865
VP62_XMRV DQ399707 TCACCCATCTCAGCCCTCAAAGATGAAGGCACTCCTTGACAGAGAAGAAAGCCCCCTACTACATGTTAAACAGGGACAGA 4851
MCF1233_MuLV U13766 TCACCCACTCGGCTAGCAGAAATGAAAGCACTCCTTGACAGAGAAGAAAGCCCCCTACTACATGTTAAACAGGGACAAA 4876

Majority ACTCTCCAGTATGTGGCAGAATCCTGCACAGTCTGTGCTCAAGTAAATGCTAGTAAAGCCAAAATCGGGGCAGGGGTACG
4890 4900 4910 4920 4930 4940 4950 4960

JY_MuLV ACTCTCAGTATGTGGCAGAATCCTGCACAGTCTGTGCTCAAGTAAATGCTAGTAAAGCCAAAATCGGGGCAGGGGTACG 4959
N417_MuLV HQ246218 ACTCTCAGTATGTGGCAGAATCCTGCACAGTCTGTGCTCAAGTAAATGCTAGTAAAGCCAAAATCGGGGCAGGGGTACG 4959
DG75_MuLV AF221065 ACTCTCCAGTATGTGGCAGAATCCTGCACAGTCTGTGCTCAAGTAAATGCTAGTAAAGCCAAAATCGGGGCAGGGGTACG 4945
VP62_XMRV DQ399707 ACTCTCCAGTATGTGACCTGAGACCTGCACCGCTGTGCTCAAGTAAATGCTAGTAAAGCCAAAATCGGGGCAGGGGTACG 4931
MCF1233_MuLV U13766 ACTCTCCAATATGTGGCAGATTCCTGCACGGTCTGTGCTCAAGTAAATGCTAGTAAAGCCAAAATCGGGGCAGGGGTACG 4956

Majority AGTACGCGGACATCGACCAGGTACCCATTGGGAAATTGACTTCACTGAAGTTAAGCCAGGGCTGTACGGGTACAAGTACC
4970 4980 4990 5000 5010 5020 5030 5040

JY_MuLV AGTACGCGGACATCGACCAGGTACCCATTGGGAAATTGACTTCACTGAAGTTAAGCCAGGGCTGTACGGGTACAAGTACC 5039
N417_MuLV HQ246218 AGTACGCGGACATCGACCAGGTACCCATTGGGAAATTGACTTCACTGAAGTTAAGCCAGGGCTGTACGGGTACAAGTACC 5039
DG75_MuLV AF221065 AATACGCGGACATCGACCAGGTACCCATTGGGAAATTGACTTCACTGAAGTTAAGCCAGGGCTGTACGGGTACAAGTACC 5025
VP62_XMRV DQ399707 AGTACGCGGACATCGACCAGGTACCCATTGGGAAATTGACTTCACTGAAGTTAAGCCAGGGCTGTACGGGTACAAGTACC 5011
MCF1233_MuLV U13766 AGTACGAGGACATCGACCAGGTACCCATTGGGAAATTGACTTCACTGAAGTTAAGCCAGGGCTGTACGGGTACAAGTACC 5036

Majority TCCTGGTGTTCGTAGACACCTTCTCTGGCTGGGTAGAAAGCCTTCCCAACTAAACGTGAAACTGCCAAGGTGACCAAG
5050 5060 5070 5080 5090 5100 5110 5120

JY_MuLV TCCTGGTGTTCGTAGACACCTTCTCTGGCTGGGTAGAAAGCCTTCCCAACTAAACGTGAAACTGCCAAGGTGACCAAG 5119
N417_MuLV HQ246218 TCCTGGTGTTCGTAGACACCTTCTCTGGCTGGGTAGAAAGCCTTCCCAACTAAACGTGAAACTGCCAAGGTGACCAAG 5119
DG75_MuLV AF221065 TCCTAGTGTTCGTAGACACCTTCTCTGGCTGGGTAGAAAGCCTTCCCAACTAAACGTGAAACTGCCAAGGTGACCAAG 5105
VP62_XMRV DQ399707 TCCTAGTGTTCGTAGACACCTTCTCTGGCTGGGTAGAAAGCCTTCCCAACTAAACGTGAAACTGCCAAGGTGACCAAG 5091
MCF1233_MuLV U13766 TCCTGGTATTCGTAGACACCTTCTCTGGCTGGGTAGAAAGCCTTCCCAACTAAACGTGAAACTGCCAAGGTGACCAAG 5116

Majority AAGCTATTAGAAGAAATATTCCAAGATTCGGGATGCCACAGGTATTGGGTTCTGATAATGGGCCTGCCTTCGTCTCCA
5130 5140 5150 5160 5170 5180 5190 5200

JY_MuLV AAGCTATTAGAAGAAATATTCCAAGATTCGGGATGCCACAGGTATTGGGTTCTGATAATGGGCCTGCCTTCGTCTCCA 5199
N417_MuLV HQ246218 AAGCTATTAGAAGAAATATTCCAAGATTCGGGATGCCACAGGTATTGGGTTCTGATAATGGGCCTGCCTTCGTCTCCA 5199
DG75_MuLV AF221065 AAGCTATTAGAAGAAATATTCCAAGATTCGGGATGCCACAGGTATTGGGTTCTGATAATGGGCCTGCCTTCGTCTCCA 5185
VP62_XMRV DQ399707 AAGCTATTAGAAGAAATATTCCAAGATTCGGGATGCCACAGGTATTGGGTTCTGATAATGGGCCTGCCTTCGTCTCCA 5171
MCF1233_MuLV U13766 AATAGCTTGAAGAAATATTCCAAGATTCGGGATGCCACAGGTATTGGGTTCTGATAATGGGCCTGCCTTCGTCTCCA 5196

Majority GGTAAGTCAGTCGGTGGCCGATTTACTGGGGATCGATTGAAATTACATTGTGCTTATAGACCCAGAGTTCAGGTCAGG
5210 5220 5230 5240 5250 5260 5270 5280

JY_MuLV GGTAAGTCAGTCGGTGGCCGATTTACTGGGGATCGATTGAAATTACATTGTGCTTATAGACCCAGAGTTCAGGTCAGG 5279
N417_MuLV HQ246218 GGTAAGTCAGTCGGTGGCCGATTTACTGGGGATCGATTGAAATTACATTGTGCTTATAGACCCAGAGTTCAGGTCAGG 5279
DG75_MuLV AF221065 GGTAAGTCAGTCGGTGGCCGATTTACTGGGGATCGATTGAAATTACATTGTGCTTATAGACCCAGAGTTCAGGTCAGG 5265
VP62_XMRV DQ399707 GGTAAGTCAGTCAGTGGCCGATTTACTGGGGATCGATTGAAATTACATTGTGCTTATAGACCCAGAGTTCAGGTCAGG 5251
MCF1233_MuLV U13766 GGTAAGTCAGTCGGTGGCCGATTTACTGGGGATCGATTGAAATTACATTGTGCTTATAGACCCAGAGTTCAGGTCAGG 5276

Majority TAGAAGAATGAATAGAACCATCAAGGAGACTCTAACTAAATTAACGCTTGCAGCTGGCACTAGAGACTGGGTACTCCTA
5290 5300 5310 5320 5330 5340 5350 5360

JY_MuLV TAGAAGAATGAATAGAACCATCAAGGAGACTCTAACTAAATTAACGCTTGCAGCTGGCACTAGAGACTGGGTACTCCTA 5359
N417_MuLV HQ246218 TAGAAGAATGAATAGAACCATCAAGGAGACTCTAACTAAATTAACGCTTGCAGCTGGCACTAGAGACTGGGTACTCCTA 5359
DG75_MuLV AF221065 TAGAAGAATGAATAGAACCATCAAGGAGACTCTAACTAAATTAACGCTTGCAGCTGGCACTAGAGACTGGGTACTCCTA 5345
VP62_XMRV DQ399707 TAGAAGAATGAATAGAACCATCAAGGAGACTCTAACTAAATTAACGCTTGCAGCTGGCACTAGAGACTGGGTACTCCTA 5331
MCF1233_MuLV U13766 TAGAAGAATGAATAGAACCATCAAGGAGACTCTAACTAAATTAACGCTTGCAGCTGGCACTAGAGACTGGGTACTCCTA 5356

Majority CTCCCCTTAGCCCTCTACCGAGCCCGGAACACTCCGGGCCCCATGGACTGACTCCGTATGAAATTCTGTATGGGGCACC
5370 5380 5390 5400 5410 5420 5430 5440

JY_MuLV CTCCCCTTAGCCCTCTACCGAGCCCGGAACACTCCGGGCCCCATGGACTGACTCCGTATGAAATTCTGTATGGGGCACC 5439
N417_MuLV HQ246218 CTCCCCTTAGCCCTCTACCGAGCCCGGAACACTCCGGGCCCCATGGACTGACTCCGTATGAAATTCTGTATGGGGCACC 5439
DG75_MuLV AF221065 CTCCCCTTAGCCCTCTACCGAGCCCGGAACACTCCGGGCCCCATGGACTGACTCCGTATGAAATTCTGTATGGGGCACC 5425
VP62_XMRV DQ399707 CTCCCCTTAGCCCTCTACCGAGCCCGGAACACTCCGGGCCCCATGGACTGACTCCGTATGAAATTCTGTATGGGGCACC 5411
MCF1233_MuLV U13766 CTCCCCTTAGCCCTCTACCGAGCCCGGAACACTCCGGGCCCCATGGACTGACTCCGTATGAAATTCTGTATGGGGCACC 5436

Majority CCCGCCCTTGCAATTTTCATGATCCTGAAATGTCAAAGTAACTAATAGTCCCTCTCTCCAAGCTCACTTACAGGCC
5450 5460 5470 5480 5490 5500 5510 5520

JY_MuLV CCCGCCCTTGCAATTTTCATGATCCTGAAATGTCAAAGTAACTAATAGTCCCTCTCTCCAAGCTCACTTACAGGCC 5519
N417_MuLV HQ246218 CCCGCCCTTGCAATTTTCATGATCCTGAAATGTCAAAGTAACTAATAGTCCCTCTCTCCAAGCTCACTTACAGGCC 5519
DG75_MuLV AF221065 CCCGCCCTTGCAATTTTCATGATCCTGAAATGTCAAAGTAACTAATAGTCCCTCTCTCCAAGCTCACTTACAGGCC 5505
VP62_XMRV DQ399707 CCCGCCCTTGCAATTTTCATGATCCTGAAATGTCAAAGTAACTAATAGTCCCTCTCTCCAAGCTCACTTACAGGCC 5491
MCF1233_MuLV U13766 CCCGCCCTTGCAATTTTCATGATCCTGAAATGTCAAAGTAACTAATAGTCCCTCTCTCCAAGCTCACTTACAGGCC 5513

Majority TCCAAGCAGTACAACGAGAGGTCTGGAAGCCGCTGGCCGCTGCTTATCAGGACCAGCTAGATCAGCCAGTGATACCCAC
5530 5540 5550 5560 5570 5580 5590 5600

JY_MuLV TCCAAGCAGTACAACGAGAGGTCTGGAAGCCGCTGGCCGCTGCTTATCAGGACCAGCTAGATCAGCCAGTGATACCCAC 5599
N417_MuLV HQ246218 TCCAAGCAGTACAACGAGAGGTCTGGAAGCCGCTGGCCGCTGCTTATCAGGACCAGCTAGATCAGCCAGTGATACCCAC 5599
DG75_MuLV AF221065 TCCAAGCAGTACAACGAGAGGTCTGGAAGCCGCTGGCCGCTGCTTATCAGGACCAGCTAGATCAGCCAGTGATACCCAC 5585
VP62_XMRV DQ399707 TCCAAGCAGTACAACGAGAGGTCTGGAAGCCGCTGGCCGCTGCTTATCAGGACCAGCTAGATCAGCCAGTGATACCCAC 5571
MCF1233_MuLV U13766 TCCAAGCAGTACAACGAGAGGTCTGGAAGCCGCTGGCCGCTGCTTATCAGGACCAGCTAGATCAGCCAGTGATACCCAC 5593

Majority CCCTTCCGTGTCGGTGACGCCGTGTGGGTACGCCGGCACCAGACTAAGAACTTGAACCTCGCTGGAAGGACCCTACAC
5610 5620 5630 5640 5650 5660 5670 5680

JY_MuLV CCCTTCCGTGTCGGTGACGCCGTGTGGGTACGCCGGCACCAGACTAAGAACTTGAACCTCGCTGGAAGGACCCTACAC 5679
N417_MuLV HQ246218 CCCTTCCGTGTCGGTGACGCCGTGTGGGTACGCCGGCACCAGACTAAGAACTTGAACCTCGCTGGAAGGACCCTACAC 5679
DG75_MuLV AF221065 CCCTTCCGTGTCGGTGACGCCGTGTGGGTACGCCGGCACCAGACTAAGAACTTGAACCTCGCTGGAAGGACCCTACAC 5665
VP62_XMRV DQ399707 CCCTTCCGTGTCGGTGACGCCGTGTGGGTACGCCGGCACCAGACTAAGAACTTGAACCTCGCTGGAAGGACCCTACAC 5651
MCF1233_MuLV U13766 CCCTTCCGTGTCGGTGACGCCGTGTGGGTACGCCGGCACCAGACTAAGAACTTGAACCTCGCTGGAAGGACCCTACAC 5673

Majority CGTCCTGCTGACCACCCACCCTCTCAAAGTAGACGGCATCTCTGCGTGGATACACGCCGCTCACGTAAGGCGGCGA
5690 5700 5710 5720 5730 5740 5750 5760

JY_MuLV CGTCCTGCTGACCACCCACCCTCTCAAAGTAGACGGCATCTCTGCGTGGATACACGCCGCTCACGTAAGGCGGCGA 5759
N417_MuLV HQ246218 CGTCCTGCTGACCACCCACCCTCTCAAAGTAGACGGCATCTCTGCGTGGATACACGCCGCTCACGTAAGGCGGCGA 5759
DG75_MuLV AF221065 CGTCCTGCTGACCACCCACCCTCTCAAAGTAGACGGCATCTCTGCGTGGATACACGCCGCTCACGTAAGGCGGCGA 5745
VP62_XMRV DQ399707 CGTCCTGCTGACCACCCACCCTCTCAAAGTAGACGGCATCTCTGCGTGGATACACGCCGCTCACGTAAGGCGGCGA 5731
MCF1233_MuLV U13766 CGTCCTGCTGACCACCCACCCTCTCAAAGTAGACGGCATCTCTGCGTGGATACACGCCGCTCACGTAAGGCGGCGA 5753

Majority CAACTCCTCCGGCCGGAACAGCAT-----GGAAGGTCCAGCGTTCTCAAAACCCCTTAAAGATAAGATTAACC
5770 5780 5790 5800 5810 5820 5830 5840
JY_MuLV CAACTCCTCCGGCCGGAACAGCAT-----GGAAGGTCCAGCGTTCTCAAAACCCCTTAAAGATAAGATTAACC 5827
N417_MuLV HQ246218 CAACTCCTCCGGCCGGAACAGCAT-----GGAAGGTCCAGCGTTCTCAAAACCCCTTAAAGATAAGATTAACC 5827
DG75_MuLV AF221065 CAACTCCTCCAGCCGGAACAGCAT-----GGAAGGTCCAGCGTTCTCAAAACCCCTTAAAGATAAGATTAACC 5813
VP62_XMRV DQ399707 CAACTCCTCCGGCCGGAACAGCAT-----GGAAGGTCCAGCGTTCTCAAAACCCCTTAAAGATAAGATTAACC 5799
MCF1233_MuLV U13766 CAACCTCCTCCGGCCAGAACAGCATCAGGACCGACA-----GGAAGGTCCAGCGTTCTCAAAACCCCTTAAAGATAAGATTAACC 5833

Majority CGTGGGGCCCCCTAATAGTTATGGGGATCTTGGTGAGGGCAGGAGCCTCGGTACAACGTGACAGCCCTCACCAGGTCTTC
5850 5860 5870 5880 5890 5900 5910 5920
JY_MuLV CGTGGGGCCCCCTAATAGTTATAGGGATCTTGGTGAGGGCAGGAGCCTCGGTACAACGTGACAGCCCTCACCAGGTCTTC 5907
N417_MuLV HQ246218 CGTGGGGCCCCCTAATAGTTATAGGGATCTTGGTGAGGGCAGGAGCCTCGGTACAACGTGACAGCCCTCACCAGGTCTTC 5907
DG75_MuLV AF221065 CGTGGGGCCCCCTAATAGTTATGGGGATCTTGGTGAGGGCAGGAGCCTCGGTACAACGTGACAGCCCTCACCAGGTCTTC 5893
VP62_XMRV DQ399707 CGTGGGGCCCCCTAATAGTTATGGGGATCTTGGTGAGGGCAGGAGCCTCGGTACAACGTGACAGCCCTCACCAGGTCTTC 5879
MCF1233_MuLV U13766 CGTGGGGCCCCCTAATAATCCTGGGGATCTTAAAGGGCAGGAGTATCAGTACAACATGACAGCCCTCACCAGGTCTTC 5913

Majority AATGTCACCTGGAGAGTTACCAACCTAATGACAGGACAAACAGCTAACGCTACCTCCCTCCTGGGGACGATGACAGACAC
5930 5940 5950 5960 5970 5980 5990 6000
JY_MuLV AATGTCACCTGGAGAGTTACCAACCTAATGACAGGACAAACAGCTAACGCTACCTCCCTCCTGGGGACGATGACAGACAC 5987
N417_MuLV HQ246218 AATGTCACCTGGAGAGTTACCAACCTAATGACAGGACAAACAGCTAACGCTACCTCCCTCCTGGGGACGATGACAGACAC 5987
DG75_MuLV AF221065 AATGTCACCTGGAGAGTTACCAACCTAATGACAGGACAAACAGCTAACGCTACCTCCCTCCTGGGGACGATGACAGACAC 5973
VP62_XMRV DQ399707 AATGTCACCTGGAGAGTTACCAACCTAATGACAGGACAAACAGCTAACGCTACCTCCCTCCTGGGGACGATGACAGACAC 5959
MCF1233_MuLV U13766 AATGTCACCTGGAGAGTTACCAACCTAATGACAGGACAAACAGCTAACGCTACCTCCCTCCTGGGGACGATGACAGACAC 5993

Majority CTTCCCTAAACTATATTTTGACTTGTGTGATTTAGTTGGAGACCACTGGGATGACCCAGAACCCGATATTGGAGATGGTT
6010 6020 6030 6040 6050 6060 6070 6080
JY_MuLV CTTCCCTAAACTATATTTTGACTTGTGTGATTTAGTTGGAGACCACTGGGATGACCCAGAACCCGATATTGGAGATGGTT 6067
N417_MuLV HQ246218 CTTCCCTAAACTATATTTTGACTTGTGTGATTTAGTTGGAGACCACTGGGATGACCCAGAACCCGATATTGGAGATGGTT 6067
DG75_MuLV AF221065 CTTCCCTAAACTATATTTTGACTTGTGTGATTTAGTTGGAGACCACTGGGATGACCCAGAACCCGATATTGGAGATGGTT 6053
VP62_XMRV DQ399707 CTTCCCTAAACTATATTTTGACTTGTGTGATTTAGTTGGAGACCACTGGGATGACCCAGAACCCGATATTGGAGATGGTT 6039
MCF1233_MuLV U13766 CTTCCCTAAACTATATTTTGACTTGTGTGATTTAGTTGGAGACCACTGGGATGACCCAGAACCCGATATTGGAGATGGTT 6061

Majority GCCGCTCTCCGGGGGAAGAAAAGGACAAGACTGTATGACTTCTATGTTTGCCCCGGTCATACTGTACCAATAGGGTGT
6090 6100 6110 6120 6130 6140 6150 6160
JY_MuLV GCCGCTCTCCGGGGGAAGAAAAGGACAAGACTGTATGACTTCTATGTTTGCCCCGGTCATACTGTACCAATAGGGTGT 6147
N417_MuLV HQ246218 GCCGCTCTCCGGGGGAAGAAAAGGACAAGACTGTATGACTTCTATGTTTGCCCCGGTCATACTGTACCAATAGGGTGT 6147
DG75_MuLV AF221065 GCCGCTCTCCGGGGGAAGAAAAGGACAAGACTGTATGACTTCTATGTTTGCCCCGGTCATACTGTACCAATAGGGTGT 6133
VP62_XMRV DQ399707 GCCGCTCTCCGGGGGAAGAAAAGGACAAGACTGTATGACTTCTATGTTTGCCCCGGTCATACTGTACCAATAGGGTGT 6119
MCF1233_MuLV U13766 GCCGCTCTCCGGGGGAAGAAAAGGACAAGACTGTATGACTTCTATGTTTGCCCCGGTCATACTGTACCAATAGGGTGT 6141

Majority GGAGGGCCGGGAGAGGGCTACTGTGGCAAATGGGGATGTGAGACCACTGGACAGGCATACTGGAAGCCATCATCATCATG
6170 6180 6190 6200 6210 6220 6230 6240
JY_MuLV GGAGGGCCGGGAGAGGGCTACTGTGGCAAATGGGGATGTGAGACCACTGGACAGGCATACTGGAAGCCATCATCATCATG 6227
N417_MuLV HQ246218 GGAGGGCCGGGAGAGGGCTACTGTGGCAAATGGGGATGTGAGACCACTGGACAGGCATACTGGAAGCCATCATCATCATG 6227
DG75_MuLV AF221065 GGAGGGCCGGGAGAGGGCTACTGTGGCAAATGGGGATGTGAGACCACTGGACAGGCATACTGGAAGCCATCATCATCATG 6213
VP62_XMRV DQ399707 GGAGGGCCGGGAGAGGGCTACTGTGGCAAATGGGGATGTGAGACCACTGGACAGGCATACTGGAAGCCATCATCATCATG 6199
MCF1233_MuLV U13766 GGAGGGCCGGGAGAGGGCTACTGTGGCAAATGGGGATGTGAGACCACTGGACAGGCATACTGGAAGCCATCATCATCATG 6221

Majority GGACCTAATTTCCCTTAAGCGAGGAAACACTCCTAAGGATCAGGGCCCTGTTATGATTCCTCXGXXGTCTCCAGTGGCG
6250 6260 6270 6280 6290 6300 6310 6320

JY_MuLV GGACCTAATTTCCCTTAAGCGAGGAAACACTCCTAAAGATCAGGGCCCTGTTATGATTCCTC --- GGTCTCCAGTGGCG 6304
N417_MuLV HQ246218 GGACCTAATTTCCCTTAAGCGAGGAAACACTCCTAAGGATCAGGGCCCTGTTATGATTCCTC --- GGTCTCCAGTGGCG 6304
DG75_MuLV AF221065 GGACCTAATTTCCCTTAAGCGAGGAAACACTCCTAAGGATCAGGGCCCTGTTATGATTCCTC GGT --- CTCCAGTGGCG 6290
VP62_XMRV DQ399707 GGACCTAATTTCCCTTAAGCGAGGAAACACTCCTAAGGATCAGGGCCCTGTTATGATTCCTC AGTGGCTCCGCTAGCA 6279
MCF1233_MuLV U13766 GGACCTAATTTCCCTTAAGCGAGGAAACACTCCCTCAGATCAGGGCCCTGTTATGATTCCTC AGTGGTCTCCAGTGA 6301

Majority TCCAGGTGCCACACCGGGGGTTCGATGCAACCCCTAGTCTTAGAATTCAGTACGCGGGTAAAAAGGCCAGCTGGGAT
6330 6340 6350 6360 6370 6380 6390 6400

JY_MuLV TCCAGGTGCCACACCGGGGGTTCGATGCAACCCCTAGTCTTAGAATTCAGTACGCGGGTAAAAAGGCCAGCTGGGAT 6384
N417_MuLV HQ246218 TCCAGGTGCCACACCGGGGGTTCGATGCAACCCCTAGTCTTAGAATTCAGTACGCGGGTAAAAAGGCCAGCTGGGAT 6384
DG75_MuLV AF221065 TCCAGGTGCCACACCGGGGGTTCGATGCAACCCCTAGTCTTAGAATTCAGTACGCGGGTAAAAAGGCCAGCTGGGAT 6370
VP62_XMRV DQ399707 TCCAGGTGCCACACCGGGGGTTCGATGCAACCCCTAGTCTTAGAATTCAGTACGCGGGTAAAAAGGCCAGCTGGGAT 6359
MCF1233_MuLV U13766 TCAAGGAGGCCACACCGGGGGTTCGATGCAATCCCTAGTCTTAGAATTCAGTACGCGGGTAAAAAGGCCAGCTGGGAT 6381

Majority GCCCCAAAGTTTGGGGACTAAGACTCTACCGATCCACXGGGGCCGACCCGGTGACCCGGTTCTCTTTGACCCGCCAGGT
6410 6420 6430 6440 6450 6460 6470 6480

JY_MuLV GCCCCAAAGTTTGGGGACTAAGACTCTACCGATCCACXGGGGCCGACCCGGTGACCCGGTTCTCTTTGACCCGCCAGGT 6464
N417_MuLV HQ246218 GCCCCAAAGTTTGGGGACTAAGACTCTACCGATCCACXGGGGCCGACCCGGTGACCCGGTTCTCTTTGACCCGCCAGGT 6464
DG75_MuLV AF221065 GCCCCAAAGTTTGGGGACTAAGACTCTACCGATCCACXGGGGCCGACCCGGTGACCCGGTTCTCTTTGACCCGCCAGGT 6450
VP62_XMRV DQ399707 GCCCCAAAGTTTGGGGACTAAGACTCTACCGATCCACXGGGGCCGACCCGGTGACCCGGTTCTCTTTGACCCGCCAGGT 6439
MCF1233_MuLV U13766 GCCCCAAAGTTTGGGGACTAAGACTCTACCGATCCACXGGGGCCGACCCGGTGACCCGGTTCTCTTTGACCCGCCAGGT 6461

Majority CCTCAATGTAGGACCCCGCTCCCCATTGGGCTAATCCCGTGATCACTGAACAGCTACCCCTCCCAACCCGTGCAGA
6490 6500 6510 6520 6530 6540 6550 6560

JY_MuLV CCTCAATGTAGGACCCCGCTCCCCATTGGGCTAATCCCGTGATCACTGAACAGCTACCCCTCCCAACCCGTGCAGA 6544
N417_MuLV HQ246218 CCTCAATGTAGGACCCCGCTCCCCATTGGGCTAATCCCGTGATCACTGAACAGCTACCCCTCCCAACCCGTGCAGA 6544
DG75_MuLV AF221065 CCTCAATGTAGGACCCCGCTCCCCATTGGGCTAATCCCGTGATCACTGAACAGCTACCCCTCCCAACCCGTGCAGA 6530
VP62_XMRV DQ399707 CCTCAATGTAGGACCCCGCTCCCCATTGGGCTAATCCCGTGATCACTGAACAGCTACCCCTCCCAACCCGTGCAGA 6519
MCF1233_MuLV U13766 CCTCAATGTAGGACCCCGCTCCCCATTGGGCTAATCCCGTGATCACTGAACAGCTACCCCTCCCAACCCGTGCAGA 6541

Majority TCATGCTCCCAGGCCTCCTCATCCTCCTCCTTCAGGCGGGCCTCTATGGTGCCTGGGGCTCCCCGCCTTCTCAACAA
6570 6580 6590 6600 6610 6620 6630 6640

JY_MuLV TCATGCTCCCAGGCCTCCTCATCCTCCTCCTTCAGGCGGGCCTCTATGGTGCCTGGGGCTCCCCGCCTTCTCAACAA 6624
N417_MuLV HQ246218 TCATGCTCCCAGGCCTCCTCATCCTCCTCCTTCAGGCGGGCCTCTATGGTGCCTGGGGCTCCCCGCCTTCTCAACAA 6624
DG75_MuLV AF221065 TCATGCTCCCAGGCCTCCTCATCCTCCTCCTTCAGGCGGGCCTCTATGGTGCCTGGGGCTCCCCGCCTTCTCAACAA 6610
VP62_XMRV DQ399707 TCATGCTCCCAGGCCTCCTCATCCTCCTCCTTCAGGCGGGCCTCTATGGTGCCTGGGGCTCCCCGCCTTCTCAACAA 6599
MCF1233_MuLV U13766 TCATGCTCCCAGGCCTCCTCATCCTCCTCCTTCAGGCGGGCCTCTATGGTGCCTGGGGCTCCCCGCCTTCTCAACAA 6621

Majority CCTGGGACGGGAGACAGGCTGCTAAACCTGGTAGAAGGAGCCTACCAAGCACTCAACCTCACCAGTCCCACAAAACCA
6650 6660 6670 6680 6690 6700 6710 6720

JY_MuLV CCTGGGACGGGAGACAGGCTGCTAAACCTGGTAGAAGGAGCCTACCAAGCACTCAACCTCACCAGTCCCACAAAACCA 6704
N417_MuLV HQ246218 CCTGGGACGGGAGACAGGCTGCTAAACCTGGTAGAAGGAGCCTACCAAGCACTCAACCTCACCAGTCCCACAAAACCA 6704
DG75_MuLV AF221065 CCTGGGACGGGAGACAGGCTGCTAAACCTGGTAGAAGGAGCCTACCAAGCACTCAACCTCACCAGTCCCACAAAACCA 6690
VP62_XMRV DQ399707 CCTGGGACGGGAGACAGGCTGCTAAACCTGGTAGAAGGAGCCTACCAAGCACTCAACCTCACCAGTCCCACAAAACCA 6679
MCF1233_MuLV U13766 CCTGGGACGGGAGACAGGCTGCTAAACCTGGTAGAAGGAGCCTACCAAGCACTCAACCTCACCAGTCCCACAAAACCA 6701

Majority AGAGTGTGGCTGTGTCTGGTATCGGGACCCCCCTACTACGAAGGGGTTGCCGTCCTAGGTACCTACTCCAACCATACT
6730 6740 6750 6760 6770 6780 6790 6800

JY_MuLV AGAGTGTGGCTGTGTCTGGTATCGGGACCCCCCTACTACGAAGGGGTTGCCGTCCTAGGTACCTACTCCAACCATACT 6784
N417_MuLV HQ246218 AGAGTGTGGCTGTGTCTGGTATCGGGACCCCCCTACTACGAAGGGGTTGCCGTCCTAGGTACCTACTCCAACCATACT 6784
DG75_MuLV AF221065 AGAGTGTGGCTGTGTCTGGTATCGGGACCCCCCTACTACGAAGGGGTTGCCGTCCTAGGTACCTACTCCAACCATACT 6770
VP62_XMRV DQ399707 AGAGTGTGGCTGTGTCTAGTATCGGGACCCCCCTACTACGAAGGGGTTGCCGTCCTAGGTACCTACTCCAACCATACT 6759
MCF1233_MuLV U13766 AGAGTGTGGCTGTGTCTGGTATCGGGACCCCCCTACTACGAAGGGGTTGCCGTCCTAGGTACCTACTCCAACCATACT 6781

Majority CTGCCCCAGCTAACTGCTCCGTGGCCTCCCAACACAAGCTGACCCTGTCCGAAGTGACCGGGCAGGGACTCTGCGTAGGA
6810 6820 6830 6840 6850 6860 6870 6880

JY_MuLV CTGCCCCAGCTAACTGCTCCGTGGCCTCCCAACACAAGCTGACCCTGTCCGAAGTGACCGGGCAGGGACTCTGCGTAGGA 6864
N417_MuLV HQ246218 CTGCCCCAGCTAACTGCTCCGTGGCCTCCCAACACAAGCTGACCCTGTCCGAAGTGACCGGGCAGGGACTCTGCGTAGGA 6864
DG75_MuLV AF221065 CTGCCCCAGCTAACTGCTCCGTGGCCTCCCAACACAAGCTGACCCTGTCCGAAGTGACCGGGCAGGGACTCTGCGTAGGA 6850
VP62_XMRV DQ399707 CTGCCCCAGCTAACTGCTCCGTGGCCTCCCAACACAAGCTGACCCTGTCCGAAGTGACCGGGCAGGGACTCTGCGTAGGA 6839
MCF1233_MuLV U13766 CTGCCCCAGCTAACTGCTCCGTGGCCTCCCAACACAAGCTGACCCTGTCCGAAGTGACCGGGCAGGGACTCTGCGTAGGA 6861

Majority GCAGTTCCTAAAACCCATCAGGCCCTGTGTAATACCACCCAGAAGACGAGCGACGGGTCTACTATCTGGCTGCTCCCGC
6890 6900 6910 6920 6930 6940 6950 6960

JY_MuLV GCAGTTCCTAAAACCCATCAGGCCCTGTGTAATACCACCCAGAAGACGAGCGACGGGTCTACTATCTGGCTGCTCCCGC 6944
N417_MuLV HQ246218 GCAGTTCCTAAAACCCATCAGGCCCTGTGTAATACCACCCAGAAGACGAGCGACGGGTCTACTATCTGGCTGCTCCCGC 6944
DG75_MuLV AF221065 GCAGTTCCTAAAACCCATCAGGCCCTGTGTAATACCACCCAGAAGACGAGCGACGGGTCTACTATCTGGCTGCTCCCGC 6930
VP62_XMRV DQ399707 GCAGTTCCTAAAACCCATCAGGCCCTGTGTAATACCACCCAGAAGACGAGCGACGGGTCTACTATCTGGCTGCTCCCGC 6919
MCF1233_MuLV U13766 GCAGTTCCTAAAACCCATCAGGCCCTGTGTAATACCACCCAGAAGACGAGCGACGGGTCTACTATCTGGCTGCTCCCGC 6941

Majority CGGGACCATCTGGGCTTGCAACACCGGGCTCACTCCCTGCCTATCTACCACTGTACTCAACCTCACCACCGATTACTGTG
6970 6980 6990 7000 7010 7020 7030 7040

JY_MuLV CGGGACCATCTGGGCTTGCAACACCGGGCTCACTCCCTGCCTATCTACCACTGTACTCAACCTCACCACCGATTACTGTG 7024
N417_MuLV HQ246218 CGGGACCATCTGGGCTTGCAACACCGGGCTCACTCCCTGCCTATCTACCACTGTACTCAACCTCACCACCGATTACTGTG 7024
DG75_MuLV AF221065 CGGGACCATCTGGGCTTGCAACACCGGGCTCACTCCCTGCCTATCTACCACTGTACTCAACCTCACCACCGATTACTGTG 7010
VP62_XMRV DQ399707 CGGGACCATCTGGGCTTGCAACACCGGGCTCACTCCCTGCCTATCTACCACTGTACTCAACCTCACCACCGATTACTGTG 6999
MCF1233_MuLV U13766 CGGGACCATCTGGGCTTGCAACACCGGGCTCACTCCCTGCCTATCTACCACTGTACTCAACCTCACCACCGATTACTGTG 7021

Majority TCCTGTTGAGCTCTGGCCAAAGGTGACCTACCACTCCCCTGGTTATGTTTATGACCAGTTTGAGAGAAAACCAAATAT
7050 7060 7070 7080 7090 7100 7110 7120

JY_MuLV TCCTGTTGAGCTCTGGCCAAAGGTGACCTACCACTCCCCTGGTTATGTTTATGACCAGTTTGAGAGAAAACCAAATAT 7104
N417_MuLV HQ246218 TCCTGTTGAGCTCTGGCCAAAGGTGACCTACCACTCCCCTGGTTATGTTTATGACCAGTTTGAGAGAAAACCAAATAT 7104
DG75_MuLV AF221065 TCCTGTTGAGCTCTGGCCAAAGGTGACCTACCACTCCCCTGGTTATGTTTATGACCAGTTTGAGAGAAAACCAAATAT 7090
VP62_XMRV DQ399707 TCCTGTTGAGCTCTGGCCAAAGGTGACCTACCACTCCCCTGGTTATGTTTATGACCAGTTTGAGAGAAAACCAAATAT 7079
MCF1233_MuLV U13766 TCCTGTTGAGCTCTGGCCAAAGGTGACCTACCACTCCCCTGGTTATGTTTATGACCAGTTTGAGAGAAAACCAAATAT 7101

Majority AAAAGAGAGCCGGTGTCACTAACTCTGGCCCTGCTGTTGGGAGGACTTACTATGGGCGGCATAGCTGCAGGAGTAGGAAC
7130 7140 7150 7160 7170 7180 7190 7200

JY_MuLV AAAAGAGAGCCGGTGTCACTAACTCTGGCCCTGCTGTTGGGAGGACTTACTATGGGCGGCATAGCTGCAGGAGTAGGAAC 7184
N417_MuLV HQ246218 AAAAGAGAGCCGGTGTCACTAACTCTGGCCCTGCTGTTGGGAGGACTTACTATGGGCGGCATAGCTGCAGGAGTAGGAAC 7184
DG75_MuLV AF221065 AAAAGAGAGCCGGTGTCACTAACTCTGGCCCTGCTGTTGGGAGGACTTACTATGGGCGGCATAGCTGCAGGAGTAGGAAC 7170
VP62_XMRV DQ399707 AAAAGAGAGCCGGTGTCACTAACTCTGGCCCTGCTGTTGGGAGGACTTACTATGGGCGGCATAGCTGCAGGAGTAGGAAC 7159
MCF1233_MuLV U13766 AAAAGAGAGCCGGTGTCACTAACTCTGGCCCTGCTGTTGGGAGGACTTACTATGGGCGGCATAGCTGCAGGAGTAGGAAC 7181

Majority AGGGACTACAGCCCTAGTGGCCACCAAACAATTCGAGCAGCTCCAGGCAGCCATACATACAGACCTTGGGG-CCTTAGAA
7210 7220 7230 7240 7250 7260 7270 7280

JY_MuLV AGGGACTACAGCCCTAGTGGCCACCAAACAATTCGAGCAGCTCCAGGCAGCCATACATACAGACCTTGGGG-CCTTAGAA 7263
N417_MuLV HQ246218 AGGGACTACAGCCCTAGTGGCCACCAAACAATTCGAGCAGCTCCAGGCAGCCATACATACAGACCTTGGGG-CCTTAGAA 7263
DG75_MuLV AF221065 AGGGACTACAGCCCTAGTGGCCACCAAACAATTCGAGCAGCTCCAGGCAGCCATACATACAGACCTTGGGG-CCTTAGAA 7249
VP62_XMRV DQ399707 AGGGACTACAGCCCTAGTGGCCACCAAACAATTCGAGCAGCTCCAGGCAGCCATACATACAGACCTTGGGG-CCTTAGAA 7238
MCF1233_MuLV U13766 CGGGACTACAGCCCTAGTGGCCACCAAACAATTCGAGCAGCTCCAGGCAGCCATACATACAGACCTTGGGG-CCTTAGAA 7260

Majority AAATCAGTCAGTGCCTAGAAAAGTCTCTGACCTCGTTGTCTGAGGTGGTCCTACAGAACCGGAGAGGATTAGATCTGCT
7290 7300 7310 7320 7330 7340 7350 7360

JY_MuLV AAATCAGTCAGTGCCTAGAAAAGTCTCTGACCTCGTTGTCTGAGGTGGTCCTACAGAACCGGAGAGGATTAGATCTGCT 7343
N417_MuLV HQ246218 AAATCAGTCAGTGCCTAGAAAAGTCTCTGACCTCGTTGTCTGAGGTGGTCCTACAGAACCGGAGAGGATTAGATCTGCT 7343
DG75_MuLV AF221065 AAATCAGTCAGTGCCTAGAAAAGTCTCTGACCTCGTTGTCTGAGGTGGTCCTACAGAACCGGAGAGGATTAGATCTGCT 7329
VP62_XMRV DQ399707 AAATCAGTCAGTGCCTAGAAAAGTCTCTGACCTCGTTGTCTGAGGTGGTCCTACAGAACCGGAGAGGATTAGATCTGCT 7318
MCF1233_MuLV U13766 AATCAGTCAGTGCCTAGAAAAGTCTCTGACCTCGTTGTCTGAGGTGGTCCTACAGAACCGGAGAGGATTAGATCTGCT 7340

Majority GTTCCTAAAAGAAGGAGGATTATGTGCTGCCCTAAAAGAAGAATGCTGTTTCTATGCGXGACCACACTGGCGTAGTAAGGG
7370 7380 7390 7400 7410 7420 7430 7440

JY_MuLV GTTCCTAAAAGAAGGAGGATTATGTGCTGCCCTAAAAGAAGAATGCTGTTTCTATGCGXGACCACACTGGCGTAGTAAGGG 7423
N417_MuLV HQ246218 GTTCCTAAAAGAAGGAGGATTATGTGCTGCCCTAAAAGAAGAATGCTGTTTCTATGCGXGACCACACTGGCGTAGTAAGGG 7423
DG75_MuLV AF221065 GTTCCTAAAAGAAGGAGGATTATGTGCTGCCCTAAAAGAAGAATGCTGTTTCTATGCGXGACCACACTGGCGTAGTAAGGG 7409
VP62_XMRV DQ399707 GTTCCTAAAAGAAGGAGGATTATGTGCTGCCCTAAAAGAAGAATGCTGTTTCTATGCGXGACCACACTGGCGTAGTAAGGG 7398
MCF1233_MuLV U13766 AATCAGTCAGTGCCTAGAAAAGTCTCTGACCTCGTTGTCTGAGGTGGTCCTACAGAACCGGAGAGGATTAGATCTGCT 7340

Majority ATAGCATGGCTAAGCTAAGAGAAAGGCTAAACCAGAGACAAAAATTGTTGGAATCAGGACAAGGGTGGTTTGAGGGACTG
7450 7460 7470 7480 7490 7500 7510 7520

JY_MuLV ATAGCATGGCTAAGCTAAGAGAAAGGCTAAACCAGAGACAAAAATTGTTGGAATCAGGACAAGGGTGGTTTGAGGGACTG 7503
N417_MuLV HQ246218 ATAGCATGGCTAAGCTAAGAGAAAGGCTAAACCAGAGACAAAAATTGTTGGAATCAGGACAAGGGTGGTTTGAGGGACTG 7503
DG75_MuLV AF221065 ATAGCATGGCTAAGCTAAGAGAAAGGCTAAACCAGAGACAAAAATTGTTGGAATCAGGACAAGGGTGGTTTGAGGGACTG 7489
VP62_XMRV DQ399707 ATAGCATGGCTAAGCTAAGAGAAAGGCTAAACCAGAGACAAAAATTGTTGGAATCAGGACAAGGGTGGTTTGAGGGACTG 7478
MCF1233_MuLV U13766 ATAGCATGGCTAAGCTAAGAGAAAGGCTAAACCAGAGACAAAAATTGTTGGAATCAGGACAAGGGTGGTTTGAGGGACTG 7500

Majority TTTAACAGGTCCCCATGGTTCACGACCCTGATATCCACCATTATGGGCCCTCTGATAGTACTTTTATTAATCCTACTCTT
7530 7540 7550 7560 7570 7580 7590 7600

JY_MuLV TTTAACAGGTCCCCATGGTTCACGACCCTGATATCCACCATTATGGGCCCTCTGATAGTACTTTTATTAATCCTACTCTT 7579
N417_MuLV HQ246218 TTTAACAGGTCCCCATGGTTCACGACCCTGATATCCACCATTATGGGCCCTCTGATAGTACTTTTATTAATCCTACTCTT 7583
DG75_MuLV AF221065 TTTAACAGGTCCCCATGGTTCACGACCCTGATATCCACCATTATGGGCCCTCTGATAGTACTTTTATTAATCCTACTCTT 7569
VP62_XMRV DQ399707 TTTAACAGGTCCCCATGGTTCACGACCCTGATATCCACCATTATGGGCCCTCTGATAGTACTTTTATTAATCCTACTCTT 7558
MCF1233_MuLV U13766 TTTAACAGGTCCCCATGGTTCACGACCCTGATATCCACCATTATGGGCCCTCTGATAGTACTTTTATTAATCCTACTCTT 7580

Majority CGGACCCTGTATTCTCAACCGCTTGGTCCAGTTTGTAAAAGACAGAATTTCCGGTGGTGCAGGCCCTGGTTCTGACCCAAC
7610 7620 7630 7640 7650 7660 7670 7680

JY_MuLV CGGACCCTGTATTCTCAACCGCTTGGTCCAGTTTGTAAAAGACAGAATTTCCGGTGGTGCAGGCCCTGGTTCTGACCCAAC 7659
N417_MuLV HQ246218 CGGACCCTGTATTCTCAACCGCTTGGTCCAGTTTGTAAAAGACAGAATTTCCGGTGGTGCAGGCCCTGGTTCTGACCCAAC 7663
DG75_MuLV AF221065 CGGACCCTGTATTCTCAACCGCTTGGTCCAGTTTGTAAAAGACAGAATTTCCGGTGGTGCAGGCCCTGGTTCTGACCCAAC 7649
VP62_XMRV DQ399707 CGGACCCTGTATTCTCAACCGCTTGGTCCAGTTTGTAAAAGACAGAATTTCCGGTGGTGCAGGCCCTGGTTCTGACCCAAC 7638
MCF1233_MuLV U13766 CGGACCCTGTATTCTCAACCGCTTGGTCCAGTTTGTAAAAGACAGAATTTCCGGTGGTGCAGGCCCTGGTTCTGACCCAAC 7660

Majority AGTATCACCAACTCAAATCAATAGATCCAGAAGAAGTAGAATCGCGTGAATAAAAGATTTTATTCAGTTTCCAGAAAGAG
7690 7700 7710 7720 7730 7740 7750 7760

JY_MuLV AGTATCACCAACTCAAATCAATAGATCCAGAAGAAGTAGAATCGCGTGAATAAAAGATTTTATTCAGTTTCCAGAAAGAG 7739
N417_MuLV HQ246218 AGTATCACCAACTCAAATCAATAGATCCAGAAGAAGTAGAATCGCGTGAATAAAAGATTTTATTCAGTTTCCAGAAAGAG 7743
DG75_MuLV AF221065 AGTATCACCAACTCAAATCAATAGATCCAGAAGAAGTAGAATCGCGTGAATAAAAGATTTTATTCAGTTTCCAGAAAGAG 7729
VP62_XMRV DQ399707 AGTATCACCAACTCAAATCAATAGATCCAGAAGAAGTAGAATCGCGTGAATAAAAGATTTTATTCAGTTTCCAGAAAGAG 7718
MCF1233_MuLV U13766 AGTATCACCAACTCAAATCAATAGATCCAGAAGAAGTAGAATCGCGTGAATAAAAGATTTTATTCAGTTTCCAGAAAGAG 7740

Majority GGGGGAATGAAAGACCCACCATAAGGCTTAGCAAGCTAGCTGCAGTAACGCCATTTTGAAGGCATGAAAAAGTACCAG
7770 7780 7790 7800 7810 7820 7830 7840

JY_MuLV GGGGGAATGAAAGACCCACCATAAGGCTTAGCAAGCTAGCTGCAGTAACGCCATTTTGAAGGCATGAAAAAGTACCAG 7819
N417_MuLV HQ246218 GGGGGAATGAAAGACCCACCATAAGGCTTAGCAAGCTAGCTGCAGTAACGCCATTTTGAAGGCATGAAAAAGTACCAG 7823
DG75_MuLV AF221065 GGGGGAATGAAAGACCCACCATAAGGCTTAGCAAGCTAGCTGCAGTAACGCCATTTTGAAGGCATGAAAAAGTACCAG 7809
VP62_XMRV DQ399707 GGGGGAATGAAAGACCCACCATAAGGCTTAGCAAGCTAGCTGCAGTAACGCCATTTTGAAGGCATGAAAAAGTACCAG 7798
MCF1233_MuLV U13766 GGGGGAATGAAAGACCCACCATAAGGCTTAGCAAGCTAGCTGCAGTAACGCCATTTTGAAGGCATGAAAAAGTACCAG 7820

Majority AGCTGA-GTTCTCAAAGTXACAAGGAAGTTTAGTTAAAGAATA-----AGGCTGAAXAAXACTGGGACAG
7850 7860 7870 7880 7890 7900 7910 7920

JY_MuLV AGCTGA-GTTCTCAAAGTACACAAAGAAGTTTAGTTAAAGAATA-----AGGCTGAAXAAXACTGGGACAG 7884
N417_MuLV HQ246218 AGCTGA-GTTCTCAAAGTACACAAGGAAGTTTAGTTAAAGAATA-----AGGCTGAAXAAXACTGGGACAG 7888
DG75_MuLV AF221065 AGCTGA-GTTCTCAAAGTACACAAGGAAGTTTAGTTAAAGAATA-----AGGCTGAAXAAXACTGGGACAG 7888
VP62_XMRV DQ399707 AGCTGA-GTTCTCAAAGTACACAAGGAAGTTTAGTTAAAGAATA-----AGGCTGAAXAAXACTGGGACAG 7863
MCF1233_MuLV U13766 AGCTGA-GTTCTCAAAGTACACAAGGAAGTTTAGTTAAAGAATA-----AGGCTGAAXAAXACTGGGACAG 7883

Majority GGGCCAAACAGGATATCTGTGGTCGAGCACCTGGGCCCGGCTCAGGGCCAAGAACAGATGGTACTCAGATAAAGCGAAA
7930 7940 7950 7960 7970 7980 7990 8000

JY_MuLV GGGCCAAACAGGATATCTGTGGTCGAGCACCTGGGCCCGGCTCAGGGCCAAGAACAGATGGTACTCAGATAAAGCGAAA 7964
N417_MuLV HQ246218 GGGCCAAACAGGATATCTGTGGTCGAGCACCTGGGCCCGGCTCAGGGCCAAGAACAGATGGTACTCAGATAAAGCGAAA 7968
DG75_MuLV AF221065 GGGCCAAACAGGATATCTGTGGTCGAGCACCTGGGCCCGGCTCAGGGCCAAGAACAGATGGTACTCAGATAAAGCGAAA 7962
VP62_XMRV DQ399707 GGGCCAAACAGGATATCTGTGGTCGAGCACCTGGGCCCGGCTCAGGGCCAAGAACAGATGGTACTCAGATAAAGCGAAA 7943
MCF1233_MuLV U13766 GGGCCAAACAGGATATCTGTGGTCGAGCACCTGGGCCCGGCTCAGGGCCAAGAACAGATGGTACTCAGATAAAGCGAAA 7963

Majority CTAGCAACAGTTTCTGGAAA-GTCCCACCTCAGTTTCA-----AGTTCCCCAAAAGACCGGGAAAAACCCCAAGCCTT-
8010 8020 8030 8040 8050 8060 8070 8080

JY_MuLV CTAGCAACAGTTTCTGGAAA-GTCCCACCTCAGTTTCAAGGTCAGTTTCCCCAAAAGACCGGGAAAAACCCCAAGCCTT- 8042
N417_MuLV HQ246218 CTAGCAACAGTTTCTGGAAA-GTCCCACCTCAGTTTCA-----AGTTCCCCAAAAGACCGGGAAAAACCCCAAGCCTT- 8040
DG75_MuLV AF221065 CTAGCAACAGTTTCTGGAAA-GTCCCACCTCAGTTTCA-----AGTTCCCCAAAAGACCGGGAAAAACCCCAAGCCTT- 8036
VP62_XMRV DQ399707 CTAGCAACAGTTTCTGGAAA-GTCCCACCTCAGTTTCA-----AGTTCCCCAAAAGACCGGGAAAAACCCCAAGCCTT- 8015
MCF1233_MuLV U13766 CTAGCAACAGTTTCTGGAAA-GTCCCACCTCAGTTTCA-----AGTTCCCCAAAAGACCGGGAAAAACCCCAAGCCTT- 8035

Majority ATTTAAACTAACCAATCAGCTCGCTTCTCGTTCTGTACCCGCGCTTTTGTCTCCCGAG-----CCCTATAAAAA--GG
8090 8100 8110 8120 8130 8140 8150 8160

JY_MuLV ATTTAAACTAACCAATCAGCTCGCTTCTCGTTCTGTACCCGCGCTTTTGTCTCCCGAG-----CCCTATAAAAA--GG 8114
N417_MuLV HQ246218 ATTTAAACTAACCAATCAGCTCGCTTCTCGTTCTGTACCCGCGCTTTTGTCTCCCGAG-----CCCTATAAAAA--GG 8112
DG75_MuLV AF221065 ATTTAAACTAACCAATCAGCTCGCTTCTCGTTCTGTACCCGCGCTTTTGTCTCCCGAG-----CCCTATAAAAA--GG 8114
VP62_XMRV DQ399707 ATTTAAACTAACCAATCAGCTCGCTTCTCGTTCTGTACCCGCGCTTTTGTCTCCCGAG-----CCCTATAAAAA--GG 8095
MCF1233_MuLV U13766 ATTTAAACTAACCAATCAGCTCGCTTCTCGTTCTGTACCCGCGCTTTTGTCTCCCGAG-----CCCTATAAAAA--GG 8107

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Majority      GTAAAAACCCACACTCGGCGGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCCAATAAAGCCTTTTG
              8170      8180      8190      8200      8210      8220      8230      8240
JY_MuLV      GTAAAAACCCACACTCGGCGGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCCAATAAAGCCTT 8191
N417_MuLV HQ246218 GTAAAAACCCACACTCGGCGGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCCAATAAAGCCTT 8189
DG75_MuLV AF221065 GTAAGAACTCCACACTCGGCGGCCAGTCCTCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCCAATAAAGCCTTTTG 8194
VP62_XMRV DQ399707 GTAAGAACTCCACACTCGGCGGCCAGTCATCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCCAATAAAGCCTTTTG 8175
MCF1233_MuLV U13766 GTAAAAACCCACACTCGGCGGCCAGTCCTCCGATAGACTGAGTCGCCCGGTACCCGTGTTCCCAATAAAGCCTTTTG 8187
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Majority      CTGXTTXCAXXX
              8250
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JY_MuLV      8191
N417_MuLV HQ246218 8189
DG75_MuLV AF221065 CTGATTACATCCG 8207
VP62_XMRV DQ399707 CTGTTTCAA 8185
MCF1233_MuLV U13766 CTGTTTCA 8196
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Decoration 'Decoration #1': Shade (with solid deep red) residues that differ from the Consensus.