

**supplementary results 1**

**New strain HSV-1-LXMW LAT1** From 1 to 7589bp.

AGCCCCGGGCCCCCGCGGGCGCGCGCGCGCAAAAAGGCCGGGCGGGC  
GTCCGGGCGGCGTGC CGCGCGCGGGCGGGCGTGGGGGGCGGGGCCGCG  
GAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAG  
GAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAG  
GAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAG  
GAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAGGAGCGGGGGAG  
GAGCGGGGGAGGAGCGGGGGAGGAGCGGCCAGACCCCGAAAACGGG  
CCCCCCCCAAAACACACCCCCCGGGGGTTCGCGCGCGGCCCTTTAAAGCG  
CGGCGGCGGGCAGCCCGGGCCCCCGCGGCCGAGACTAGCGAGTTAGACA  
GGCAAGCACTACTCGCCTCTGCACGCACATGCTTGCCTGTCAA ACTCTACC  
ACCCCGGCACGCTCTGTCTCCATGGCCCGCCGCCGCCATCGCGGCC  
CCCGCCGCCCGGGCCGCCCGGGCCACGGGCGCGGTCCCAACCGCACAG  
TCCCAGGTAACCTCCACGCCAACTCGGAACCCGTGGTCAGGAGCGCGCC  
CGCGGCCGCCCGCCGCCGCCCGCCAGTGGGCCCGCCCTTCTTGTTT  
GCTGCTGCTGCGCCAGTGGCTCCACGTTCCCGAGTCCGCGTCCGACGACG  
ACGACGACGACGACGACTGGCCGGACAGCCCCCGCCGAGCCGGCGCC  
AGAGGCCCGGCCACCGCCGCCCGCCCGCCCGGTCCCAACCGCCCG  
GCGCGGGCCCGGGGGCGGGGCTAACCCCTCCACCCCCCTCACGCCCC  
TTCCGCCTTCCGCCGCGCTCGCCCTCCGCCTGCGCGTCACCGCAGAGCAC  
CTGGCGCGCCTGCGCCTGCGACGCGCGGGCGGGAGGGGGCGCCGGAGC  
CCCCCGGACCCCCGCGACCCCCGCGACCCCCGCGACCCCCGCGACCCCC  
ACGCGGGTTCGCTTCTCGCCCCACGTCCGGGTGCGCCACCTGGTGGTCTG  
GGCCTCGGCCGCCCGCCTGGCGCGCCGCGGCTCGTGGGCCCGCGAGCGGG  
CCGACCGGGCTCGGTTCCGGCGCCGGGTGGCGGAGGCCGAGGCGGTCATC  
GGGCCGTGCCTGGGGCCCGAGGCCCGTGCCCGGGCCCGGGCCCTGGCCCG  
CGGAGCCGGCCCGGCGAACTCGGTCTAACGTTACACCCGAGGCGGCCTGG  
GTCTTCCGCGGAGCTCCCGGGAGCTCCGCACCAAGCCGCTCTCCGGAGAG  
ACGATGGCAGGAGCCGCGCATATACGCTTGGAGCCGGCCCGCCCCGAG  
GCGGGCCCGCCCTCGGAGGGCGGGACTGGCCAATCGGCGGCCGCCAGCGC  
GGCGGGGCCCGGCCAACCAGCGTCCACCGAGTCGTTGGGGCCCGGCCAC  
TGGGCGGTAAC TCCCGCCAGTGGGCCGGGCCGCCACTTCCCGGTATGGT  
AATTA AAAACTTGCAGAGGCCTTGTTCCGCTTCCCGGTATGGTAATTAGAA  
ACTCATTAATGGGCGGCCCGGCCGCCCTTCCCGCTTCCGGCAATTCCCGC  
GGCCCTTAATGGGCAACCCCGGTATTCCCGCCTCCCGCGCCGCGCGTAAC  
CACTCCCCTGGGGTTCCGGGTATGTTAATTGCTTTTTTGGCGGAACACACG  
GCCCTCGCGCATTGGCCCGCGGGTTCGCTCAATGAACCCGCATTGGTCCCC  
TGGGGTTCGGGTATGGTAATGAGTTTCTTCGGGAAGGCGGGAAGCCCCG  
GGCACCGACGCAGGCCAAGCCCTGTTGCGTCGGCGGGAGGGGCATGCT  
AATGGGGTCTTTGGGGGACACCGGGTTGGTCCCCCAAATCGGGGGCCCG  
GCCGTGCATGCTAATGATATTCTTTGGGGGCGCCGGGTTGGTCCCCGGGGA  
CGGGGCCCGCCCGCGGTGGGCCTGCCTCCCCTGGGACGCGCGGCCATTGG  
GGGAATCGTCACTGCCGCCCTTTGGGGAGGGGAAAGGCGTGGGGTATAA

GTTAGCCCTGGCCCGACGGTCTGGTCGCATTTGCACCTCGGCACTCGGAGC  
GAGACGCAGCAGCCAGGCAGACTCGGGCCGCCCCCTCTCCGCATCACCAC  
AGAAGCCCCGCCTACGTTGCGACCCCCAGGGACCCTCCGTCCGCGACCCT  
CCAGCCGCATACGACCCCCATGGAGCCCCGCCCCGGAGCGAGTACCCGCC  
GGCCTGAGGGCCGCCCCAGCGCGAGGTGAGGGGCGGGCGCCATGTCTG  
GGGCGCCATATTGGGGGGCGCCATATTGGGGGGCGCCATGTTGGGGGACCC  
CCGACCCTTACTGGAACCGGCCGCCATGTTGGGGGACCCCCACTCATA  
ACGGGAGCCGGGCGCCATGTTGGGGCGCCATGTTAGGGGGCGTGGAACCC  
CGTGACACTATATACAGGGACCAGGGGGCGCCATGTTAGGGGGCGCGGAA  
CCCCCTGACCCTATATACAGGGACCAGGGGTCGCCCTGTTAGGGGGTCGCCA  
TGTGACCCCTGACTTTATATACAGACCCCCAACACATACACATGGCCCC  
TTTGA CTCAGACGCAGGGCCCCGGGGTCGCCGTGGGACCCCCCCCCCTG  
ACTCATAACAGAGACACGCCCCACAACAACACACAGGGACCAGGGGTC  
GCCGTGTTAGGGGGCGTGGTCCCCTGACTCACACGCAGGGCCCCCTTAG  
TCACACGCATCTAGGGGGGTGGGGAGGAGCCGCCCATATTTGGGGGA  
CGCCGTGGGACCCCCGACTCCGGTGCCTGAGGGGCGGGAGAAGAGGG  
AAGAAGAGGGGTTCGGGATCAAAGGACGGACCCAGACCACCTTTGGTTGC  
AGACCCCTTTCTCCCCCTCTTCCGAGGCCAGCAGGGGGGCGAGGACTTTGT  
GAGGCGGGGGGAGGGGGA ACTCGTGGGCGCTGATTGACGCGGGAAATC  
CCCCCATTTCTTACCACCCCCCTTTTTTCCCTTAGCCCCGCCCGGATGT  
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CGGAGACCGAAGTGGGGGGCGGGGGGACGCCGACCACCATGACGACGA  
CTCCGCTCCGAGGCGGACAGCACGGACACGGA ACTGTTTCGAGACGGGG  
CTGCTGGGGCCGAGGGCGTGGATGGGGGGGCGGTCTCGGGGGGAGCC  
CCCCCGCGAGGAAGACCCCGGCAGTTGCGGGGGCGCCCCCTCGAGAG  
GACGGGGGAGCGACGAGGGCGACGTGTGCGCCGTGTGCACGGATGAGA  
TCGCGCCCCACCTGCGCTGCGACACCTTCCCGTGCATGCACCGCTTCTGCA  
TCCCGTGCATGAAAACCTGGATGCAATTGCGCAACACCTGCCCGCTGTGCA  
ACGCCAAGCTGGTGTACCTGATAGTGGGCGTGACGCCAGCGGGTCGTTTC  
AGCACCATCCCGATCGTGAACGACCCCCAGACCCGCATGGAGGCCGAGGA  
GGCCGTCAGGGCGGGCACGGCCGTGGACTTTATCTGGACGGGCAATCAGC  
GGTTCGCCCCGCGGTACCTGACCCTGGGGGGGCACACGGTGAGGGCCCTG  
TCGCCCACCCACCCTGAGCCACCACGGACGAGGATGACGACGACCTGGA  
CGACGGTGAGGCGGGGGGCGGCGAGGACCCTGGGGGAGGAGGAGGAGG  
GGGGGGGGGAGGGAGGAGTAGGCGGGCGGGCGGGCGAGGAAAGGGCGG  
GCCGGGAGGGGGCGTAACCTGATCGCGCCCCCGTTGTCTCTTGCAGCA  
GACTACGTACCGCCCGCCCCCGCCGGACGCCCGCGCCCCCACGCAG  
AGGCGCCGCGCGCCCCCGTGACGGGCGGGGCGTCTCACGCAGCCCCC  
AGCCGGCCGCGGCTCGGACAGCGCCCCCTCGGCGCCATCGGGCCACAC  
GGCAGCAGTAACACTAACACCACCACCAACAGCAGCGGGCGGGCGGCTC  
CCGCCAGTCGCGAGCCGCGGTGCCGCGGGGGGCGTCTGGCCCCCTCCGGGG  
GGGTTGGGGTGGGGGTTGGGGTTGTTGAAGCGGAGGCGGGGCGGCCGAG  
GGGCCGGACGGGCCCCCTTGTC AACAGACCCGCCCCCTTGCAAACAACA  
GAGACCCCATAGTGATCAGCGACTCCCCCGGCCCTCTCCCCACAGGCCCC

CCGCGGCGCCCATGCCAGGCTCCGCCCCCGCCCCGGTCCCCCGCGTCCG  
CGGCCGCGTCGGGCCCGCGCGCCCCCGCGCGGCCCGTGGCCCCGTGCGTGC  
GAGCGCCGCCTCCGGGGCCCCGGCCCCCGCGCCCCGGCCCCGGGGCGGAG  
CCGGCCGCCCCGCCCGCGGACGCGCGCCGTGTGCCCCAGTCGCACTCGTC  
CCTGGCTCAGGCCACGAACCAAGAACAGAGTCTGTGCCGGGCGCGTGCGA  
CGGTGGCGCGCGGCTCGGGGGGGCCGGGCGTGGAGGGTGGACACGGGGCC  
CTCCCGCGGCGCCGCCCCCTCCGGGCGCCCCCGCTCCCCTCCGCCGCCTC  
TGTCGAGCAGGAGGCGGCGGTGCGTCCGAGGAAGAGGGCGCGGGTCCGGC  
CAGGAAAACCCCTCCCCCAGTCCACGCGTCCCCCCTCGCGCCGGCAGG  
GGCAAGAGGGGCGGCGACGCACCCCCCTCCGACTCAGGGCCGGGGGGG  
CGCGGCCAGGGTGGGCCCCGGGACCCCCCTGACGTCCTCGGTGGCCTCCGC  
CTCTTCTCCTCCGCCTCTTCTCCTCGGCCCGACTCCCGCGGGGGCCGC  
CTCTTCCGCCACCGGGGCCGCGTCTCCTCCGCTTCCGCCTCCTCGGGCGG  
GGCCGTCGGTGCCCTGGGAGGGAGACAAGAGGAAACCTCCCTCGGCCCCC  
GCGCTGCTTCTGGGCCGCGGGGGCCGAGGAAGTGTGCCCGGAAGACGCG  
CCACGCGGAGACTTCCGGGGCCGTCCCCGCGGGCGGCCTCACGCGTACC  
TGCCATCTCGGGGGTCTTAGCGTGGTCCGCTGTCGCCTTACGTGAACA  
AGACGATCACGGGGGACTGCCTGCCCATCCTGGACATGGAGACGGGGAAC  
ATCGGGGCGTACGTGGTCTTGGTGGACCAGACGGGAAACATGGCGACCCG  
GCTGCGGGCCCGCGGTCCCCGGCTGGAGCCGCCGCACCCTGCTCCCCGAGA  
CCGCGGGTAACCACGTGACGCCCCCGAGTACCCGACGGCCCCCGCGTCCG  
GAGTGGAACAGCCTCTGGATGACCCCCGTGGGGAACATGCTGTTCCGACCA  
GGCACCCCTAGTGGGCGCCCTGGACTTCCGCAGCCTGCGGTCTCGGCACC  
CGTGGTCCGGGGAGCAGGGGGCGTCCGACCCGGGACGAGGGAAAACAATA  
AGGGACGCCCCCGTGTGGTGGGGAGGGGGGGGGTCCGGGCGCTGGGT  
GGTCTCTGGCCGCGCCACTACACCAGCCAATCCGTGTCCGGGGAGGTGGA  
AAGTGAAAGACACGGGCACCACACACCAGCGGGTCTTTTGTGTTGGCCCT  
AATAAAAAAAAAAACTCAGGGGATTTTGTCTGTCTGTTGGGAAATAAAGTTT  
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GTGGGGGTGCGTGGGAGTGGGGGTGCGTGGGAGTGGGGGTGCGTGGGAG  
TGGGGGTGCGTGGGAGTGGGGGTGCGTGGGAGTGGGGGTGCCATGTTGGG  
CAGGCTCTGGTGTAAACCACAGAGCCGCGGCCCGGGCTGCCTGACCACCG  
ATCCCCGAAAGCATCCTGCCACTGGCATGGAGCCAGAACCACAGTGGGTT  
GGGTGTGGGTGTTAAGTTTCCGCGAGCGCCTGCCCGCCCGGACTGACCTG  
GCCTCTGGCCGCCACAAAGGGCGGGGGGGTAACTACTATAGGGCAA  
CAAAGGATGGGAGGGGTAGCGGGGCGGGACGGGGCGCCAAAAGGGGGT  
CGGCCACACCACAGACGTGGGTGTTGGGGGGTGGGGGGAGGGGTGGGGG  
GGGGGGAAGACAGAAACAGGAACATAGTTAGAAAACAAGAATGCGGTGC  
AGCCAGAGAATCACAGGAGACGAGGGGATGGGCGTGTGGTTACCAACC  
ACACCCAGGCATGCTCGGTGGTATGAAGGAGGGGGGGCGGTGCTTCTTAG  
AGACCCCGGGGGACGTGGGGTTGGTGTGCAAAGGCACGCGCACCCGCG  
CCGGCCAGGTGGGCCGGTACCCCATCCCCCTCCCCGACCCTTCCCACCC  
CCGCGTGCCAGAGATCACCCCGTCCCCCGGCACCCGCCACTCCTCCATAT

CCTCGCTTTAGGAACAACCTTTAGGGGGGGTACACACGCGCCGTGCATTTCC  
TTCCACACCCCCCTCCCCGCACTCCCCCCCCCAGGCAGTAAGACCCAA  
GCATAGAGAGCCAGGCACAAAACACAGGCGGGGTGGGACACATGCCTTC  
TTGGAGTACGTGGGTCATTGGCGTGGGGGGGGGGTTACAGCGACACCGG  
CCGACCCCCTGGCGGTCTTCCAGCCGGCCCTTAGATAAGGGGGCAGTTGGT  
GGTCGGACGGGTAAGTAACAGAGTCTGACTAAGGGTGGGAGGGGGGGAA  
AAGAACGGGCTGGTGTGCTGTAACACGAGCCACCCGCGAGTGGCGTGGC  
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ACACCGGGGCGCCCTCGACGAGTGGGATAACGGGGGAGGAAGGGAGGGA  
GGAGGGTACTGGGGGTGAAGAAGGGGGGGGGGAGAAGCGAGAACAGGA  
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GCATGCGCCGGGCCGTTGTGGGGCCCCGGGCCGGGGCCCCCTTGGGTCCGC  
CGGGGCCCGGGCCGGGCCGCCACGGGGGCCGGCCGTTGGCGGTAACCCC  
GAGTGTTTCATCTCAGGCCCGGGCCGGGAACCCGGAAAAGCCTCCGGGGG  
GCCTTTTTTCGCGTCGCGTGCCGGCGAGCGGGTCCGGACGGGGCCCCGGACC  
GCCGCGGTGCGGGGGCCCCCTCGTCCCGGGCCGTACGCGGCCTTCGCCCCGT  
GAGGGGACAGACGAACGAAACATTCCGGCGACGGAACGAAAACACCCC  
AGACGGGTAAAGAAACAGAAACCGCAACCCCCACCACCCCGAAACGG  
GGAAAACGAAAAACAGACCAGCGGCCGGCCGGCGCTTAGGGGGAGGAT  
GTCGCCGACGCCCTTGGCCGCCCGGCTGCAGGGGGGCCCGGAGAGCCG  
CGGCACCCGGACGCGCCCCGAAAGTCTTTCGCACCACCGGCGA.

**supplementary results 2**

**New strain HSV-1-LXMW** LAT2 From 118783 to 127151bp

TATAAAAGCGGGGGGCGCGGCCGTGCCGATCGCCGGTGGTGCGAAAGACT  
TTCCGGGCGCGTCCGGGTGCCGCGGCTCTCCGGGCCCCCCCTGCAGCCGGG  
GCGGCCAAGGGGCGTCGGCGACATCCTCCCCCTAAGCGCCGGCCGGCCGC  
TGGTCTGTTTTTTCGTTTTCCCCGTTTCGGGGGTGGTGGGGGTGCGGTTTC  
TGTTTCTTAAACCGTCTGGGGTGTTTTTCGTTCCGTCGCCGGAATGTTTCG  
TTCGTCTGTCCCCTCACGGGGCGAAGGCCGCGTACGGCCCGGACGAGGG  
GCCCCGACCGCGGCGGTCCGGGCCCGTCCGGACCCGCTCGCCGGCACG  
CGACGCGAAAAAGGCCCCCCGGAGGCTTTTCCGGGTTCCCGGCCCCGGGGC  
CTGAGATGAACACTCGGGGTACCGCCAACGGCCGGCCCCCGTGGCGGCC  
CGGCCCGGGGCCCGGCGGACCCAAGGGGCCCGGCCCGGGGCCCCACA  
ACGGCCCCGGCGCATGCGCTGTGGTTTTTTTTTTTCTCCTCGGTGTTCTGCCGG  
CTCCACCGCCTTTCCTGTTCTCGTTCTCCCCCCCCCTTCTTACCCCCAG  
TACCCTCCTCCCTCCCTTCCCTCCCCGTTATCCCACTCGTCGAGGGCGCCCC  
GGTGTGTTCAACAAAGACGCCGCGTTTCCAGGTAGGTTAGACACCTGCTT  
CTCCCCAATAGAGGGGGGGACCCAAACGACAGGGGGCGCCCCAGAGGCT  
AAGGTCGGCCACGCCACTCGCGGGTGGGCTCGTGTTACAGCACACCAGCC  
CGTTCTTTTCCCCCCTCCCACCCTTAGTCAGACTCTGTTACTTACCCGTCC  
GACCACCAACTGCCCCCTTATCTAAGGGCCGGCTGGAAGACCGCCAGGGG  
GTCGGCCGGTGTGCTGTAACCCCCCCCCCACGCCAATGACCCACGTACT

CCAAGAAGGCATGTGTCCCACCCCGCCTGTGTTTTTGTGCCTGGCTCTCTAT  
GCTTGGGTCTTACTGCCTGGGGGGGGGAGTGCGGGGAGGGGGGGTGTG  
GAAGGAAATGCACGGCGCGTGTGTACCCCCCTAAAGTTGTTCTAAAGCG  
AGGATATGGAGGAGTGGCGGGTGCCGGGGGACCGGGGTGATCTCTGGCAC  
GCGGGGGTGGGAAGGGTCGGGGGAGGGGGGATGGGGTACCGGCCACCT  
GGCCGGCGCGGGTGCGCGTGCCTTTGCACACCAACCCACGTCCCCGGC  
GGTCTCTAAGAAGCACCGCCCCCTCCTTCATAACCAGCATGCCTGG  
GTGTGGGTTGGTAACCAACACGCCATCCCCTCGTCTCCTGTGATTCTCTG  
GCTGCACCGCATTCTTGTTTTCTAACTATGTTCTGTTTCTGTCTTCCCCC  
CCCCACCCCTCCGCCCCACCCCAACACCCACGTCTGTGGTGTGGCCGAC  
CCCCTTTGGGCGCCCCGTCCCGCCCCGCTACCCCTCCCATCCTTTGTTGCC  
CTATAGTGTAGTTAACCCCCCGCCCTTTGTGGCGGCCAGAGGCCAGGTC  
AGTCCGGGCGGGCAGGCGCTCGCGGAACTTAACACCCACACCCAACCCA  
CTGTGGTTCTGGCTCCATGCCAGTGGCAGGATGCTTTCGGGGATCGGTGGT  
CAGGCAGCCCGGGCCGCGGCTCTGTGGTTAACACCAGAGCCTGCCAACA  
TGGCACCCCACTCCACGCACCCCACTCCACGCACCCCACTCCACG  
CACCCCACTCCACGCACCCCACTCCACGCACCCCACTCCACGCAC  
CCCCACTCCACGCACCCCACTCCACGCACCCCACTCCACGCACCCC  
CGCGATACATCCAACACAGACAGGGAAAAGATACAAAAGTAAACCTTTATT  
TCCCAACAGACAGCAAATCCCCTGAGTTTTTTTTTTTATTAGGGCCAACA  
CAAAAGACCCGCTGGTGTGTGGTGCCCGTGTCTTTCACCTTCCACCTCCCC  
GACACGGATTGGCTGGTGTAGTGGGCGCGGCCAGAGACCACCAGCGCCC  
GACCCCCCCCCCTCCCCACAAACACGGGGGGCGTCCCTTATTGTTTTCCCT  
CGTCCCGGGTGCACGCCCCCTGCTCCCCGGACCACGGGTGCCGAGACCGC  
AGGCTGCGGAAGTCCAGGGCGCCCACTAGGGTGCCCTGGTTCGAACAGCAT  
GTTCCCCACGGGGGTCATCCAGAGGCTGTTCCACTCCGACGCGGGGGCCG  
TCGGTACTCGGGGGGCGTCACGTGGTTACCCGCGGTCTCGGGGAGCAGG  
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TCCCGTCTGGTCCACCAGGACCACGTACGCCCGATGTTCCCGTCTCCAT  
GTCCAGGATGGGCAGGACGTCCCCCGTGATCGTCTTGTTACGTAAGGCGA  
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CACTTCTCGGCCCCCGCGGCCAGAAGCAGCGCGGGGGCCGAGGGAGG  
TTTCTCTTGCTCCCTCCCAGGGCACCGACGGCCCCGCCGAGGAGGCG  
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GAGTCGGGGCCGAGGAGGAAGAGGCGGAGGAGGAAGAGGCGGAGGCCA  
CCGAGGACGTCAGGGGGGTCCCGGGCCACCCTGGCCGCGCCCCCGGC  
CCTGAGTCGGAGGGGGGTGCGTCCCGCCCTTTGGCCCTGCCGGCGC  
GAGGGGGGACGCGTGGACTGGGGGAGGGGTTTTCTGGCCGACCCG  
CGCTCTTCTCGGACGCACCGCCGCCTCCTGCTCGACAGAGGCGGGCGGA  
GGGGAGCGGGGGGGCGCCGGAGGGGGCGGCGCCGCGGGAGGGCCCGTGT  
CCACCCTCCACGCCCGGCCCCCGAGCCGCGCGCCACCGTCGCACGCGC  
CCGGCACAGACTCTGTTCTTGTTTCGTGGCCTGAGCCAGGGACGAGTGCG  
ACTGGGGCACACGGCGCGGTCCGCGGGGGCGGGCGGCCGGCTCCGCCCC



CCTGGGGGTCGCAACGTAGGCGGGGCTTCTGTGGTGATGCGGAGAGGGGG  
CGGCCCAGTCTGCCTGGCTGCTGCGTCTCGCTCCGAGTGCCGAGGTGCA  
AATGCGACCAGACCGTCGGGCCAGGGCTAACTTATACCCACGCCTTTCCC  
CTCCCCAAAGGGGCGGCAGTGACGATTCCCCCAATGGCCGCGCGTCCCAG  
GGGAGGCAGGCCACCGCGGGGCGGCCCCGTCCCCGGGGACCAACCCGG  
CGCCCCAAAGAATATCATTAGCATGCACGGCCC GGCCCCGATTTGGGGG  
ACCAACCCGGTGTCCCCAAAGAACCCATTAGCATGCCCTCCCGCCGAC  
GCAACAGGGGCTTGGCCTGCGTCGGTGCCCCGGGGCTTCCCGCCTTCCCG  
AAGAACTCATTACCATAACCCGGAACCCAGGGGACCAATGCGGGTTCATT  
GAGCGACCCGCGGGCCAATGCGCGAGGGGCCGTGTGTTCCGCCAAAAA  
GCAATTAACATAACCCGGAACCCAGGGGAGTGGTTACGCGCGGCGCGGG  
AGGCGGGGAATAACGGGGTTGCCATTAAGGGCCGCGGAATTGCCGGAA  
GCGGGAAGGGCGGCCGGGGCCGCCATTAATGAGTTTCTAATTACCATAAC  
GGGAAGCGGAACAAGGCCTCTGCAAGTTTTTAATTACCATAACGGGAAGTG  
GGCGGCCCGGCCACTGGGCGGGAGTTACCGCCAGTGGGCGGGGCCCA  
ACGACTCGGTGGACGCTGGTTGGCCGGGCCCGCCGCGCTGGCGGCCGCC  
GATTGGCCAGTCCCGCCCTCCGAGGGCGGGCCCGCCTCGGGGGCGGGCCG  
GCTCCAAGCGTATATATGCGCGGCTCCTGCCATCGTCTCTCCGGAGAGCGG  
CTTGGTGCGGAGCTCCCGGGAGCTCCGCGGAAGACCCAGGCCGCCTCGGG  
TGTAACGTTAGACCGAGTTCGCCGGGCCGGCTCCGCGGGCCAGGGCCCGG  
GCCCCGGGCACGGGCCTCGGGCCCCAGGCACGGCCC GATGACCGCCTCGGC  
CTCCGCCACCCGGCGCCGGAACCGAGCCCGGTCGGCCC GCTCGCGGGCCC  
ACGAGCCGCGGCGCGCCAGGCGGGCGGCCGAGGCCAGACCACAGGTG  
GCGCACCCGGACGTGGGGCGAGAAGCGCACCCGCGTGGGGGTGCGGGG  
GTCGCGGGGGTTCGCGGGGGTTCGCGGGGGTTCGCGGGGGGCTCCGGCGCCC  
CCTCCCCGCCGCGCTCGCAGGCGCAGGCGCGCCAGGTGCTCTGCGGTG  
ACGCGCAGGCGGAGGGCGAGGCGCGGCGGAAGGCGGAAGGGGCGTGAG  
GGGGGGTGGGAGGGGTTAGCCCCGCCCCCGGGCCCGCGCCGGGCGGTG  
GGGACCGGGGGCGGGGGCGGCGGCGGTGGGCCGGGCCTCTGGCGCCGG  
CTCGGGCGGGGGCTGTCCGGCCAGTCGTCGTCGTCGTCGTCGTCGTCG  
ACGCGGACTCGGGAACGTGGAGCCACTGGCGCAGCAGCAGCAACAAGA  
AGGCGGGGGCCACTGGCGGGGGGCGGCGGCGGGGCGGCCGCGGGCGCG  
CTCTGACCACGGGTTCGAGTTGGGCGTGGAGGTTACCTGGGACTGTGC  
GGTTGGGACCGCGCCCGTGGGCCCGGGCGGCCGGGGGCGGCGGGGGCCG  
CGATGGCGGCGGCGGCGGGCCATGGAGACAGAGAGCGTGCCGGGGTGGT  
AGAGTTTGACAGGCAAGCATGTGCGTGACAGAGGCGAGTAGTGCTTGCTG  
TCTAACTCGCTAGTCTCGGCCGCGGGGGGCCCGGGCTGCCCGCCGCCGCG  
CTTTAAAGGGCCGCGCGCACCCCCGGGGGGTGTGTTTTGGGGGGGGGCC  
CGTTTTCGGGGTCTGGCCGCTCCTCCCCCGCTCCTCCCCCGCTCCTCCCC  
CCGCTCCTCCCCCGCTCCTCCCCCGCTCCTCCCCCGCTCCTCCCCCGC  
TCCTCCCCCGCTCCTCCCCCGCTCCTCCCCCGCTCCTCCCCCGCTCCT  
CCCCCGCTCCTCCCCCGCTCCTCCCCCGCTCCTCCCCCGCTCCTCCCC  
CCGCTCCTCCCCCGCTCCTCCCCCGCTCCCGCGGCCCGCCCCCAACG  
CCCGCGCGCGCGCACGCCGCCGGACCGCCGCCCGCCTTTTTTGCGC

GCGCGCGCGCCCGCGGGGGCCCGGGCTGCCACAGGTGAAACAACGCCA  
ACAGAGCACGGCGCACTCCGCACGTACACGTACGTACATCCACCACACC  
TGCCACCAACAACACTCACAGCGACAACACTACCGCGCAACAACCTCCTGT  
TCCTCATCCACACGTACCGCGCACCTCCCGCTCCTCCAGACGTACCCCGG  
CGAACACACCGCTCCTGCTACACACCACCGCCCCTCCCCAGCCCCAGCCC  
TCCCCAGCCCCAGCCCTCCCCAGCCCCAGCCCTCCCCAGCCCCAGCCCTCC  
CCAGCCCCAGCCCTCCCCAGCCCCAGCCCTCCCCAGCCCCAGCCCTCCCCA  
GCCCCAGCCCTCCCCAGCCGCGTCCCGCGCTCCCTCGGGGGGGTTTCGGGC  
ATCTCTACCTCAGTGCCGCCAATCTCAGGTCAGAGATCCAAACCCTCCGGG  
GGCGCCCGCGCACCAACCACCGCCCCTCGCCCCCCCCCCCCCCCCCCCCC  
CCC  
CCCCCGCCCCCCCCGCCCCCTCCCCCCCCCCCCCCCCCCCCCCCCCCCCCGCC  
CCCCCGCCCCCTCCCCCCCCCCCCCCCCCCCCCCCCCGCCCCCTCGCCCCCTCCCG  
CCCCCCCCCCCCCCCCCGCCCCCCCCCCCCCCCCCCCCCTCCCGCCCCCTCGCC  
CCCTCCCGCCCCCTCGCCCCCTCCCGCCCCCTCGCCCCCTCCCGCCCCCTCGAAT  
AAACAACGCTACTGCA.

**supplementary results 3**

**HSV-1-LXMW LAP1 (7589-9589bp)**

TCGGCACGGCCGCGCCCCGCTTTTATAAAGGCTCAGATGACGCAGCAAA  
AACAGGCCACAGCACCACGTGGGTAGGTGATGTAATTTTATTTTCCTCGTCT  
GCGGCCTAATGGATTTCCGGGCGCGGTGCCCTGTCTGCAGAGCACTTAAC  
GGATTGATATCTCGCGGGCACGCGCGCCCTAATGGACCGGCGCGGGGGCGG  
GGGGCCGGATACCCACACGGGCGGGGGGGGGGTGTCGCGGGCCGTCTGCT  
GGCCCGCGGCCACATAACAATGACTCGGGGCCTTTCTGCCTCTGCCGCTT  
GTGTGTGCGCGCGCCGGCTCTGCGGTGTCGGCGGCGGCGGGCGGTGGCCGC  
CGTGTTCGGTCTCGGTAGCCGGCCGGCGGGTGGACTCGCGGGGGGCCGGA  
GGGTGGAAGGCAGGGGGGTGTAGGATGGGTATCAGGACTTCCACTTCCCCG  
TCCTTCCATCCCCGTTCCCTCGGTTGTTCTCGCCTCCCCAACACCCCG  
CCGCTTTCCGTTGGGGTTGTTATTGTTGTCGGGATCGTGCGGGCCGGGGGT  
CGCCGGGGCAGGGGCGGGGGCGTGGGCGGGGGTGTCTGTCGATCGACCG  
GGCTCAGTGGGGGCGTGGGGTGGGTGGGAAAAGGCGAGGAGACTGGGGT  
GGGGGGTGTCCGGTGGGTGGTTGTTTTTTGTGGTTGTTTTTTGTGTCTGTTCC  
CGTCCCCCGTCACCCCCCTCCCTCCGTCCCCTCCGTCCCCCCGTCGCGGGT  
GTTTGTGTTTGTTTATTCCGACATTGGTTTGTTTAAATAAACACAGCCGTTCT  
GCGTGTCTGTTCTTGCGTGTGGCTGGGGGCTTATATGTGGGGTCCCGGGGG  
CGGGATGGGGTTTAGCGGCGGGGGGCGGCGCGCCGGACGGGGCGCTGGA  
GATAACGGCCCCCGGGGAACGGGGGACCGGGGCTGGGTCTCCCGAGGTGG  
GTGGGTGGGCGGCGGTGGCCGGGCCGGGCCGGGCCGGGCCGGGCTGGGT  
GGGCGGGGTTTGGAACACGAGGAGGCGGAGGAGGAGGGGGGGAGACG  
GGGGGAAAGCAAGGACACGGCCCGGGGGGTGGGAGCGCGGGCCGGGCC  
GCTCGTAAGAGCCGCGACCCGGCCGCGGGGAGCGTTGTGCGCCGTCGGTC  
TGCCGGCCCCCGTCCCTCCCTTTTTTGACCAACCAGCGCCCCCCCCCTCAC  
CACCATTCTACTACCACCACCACCACCACCACCACCTCCCGCGCACC

CCCGCCACATCCCCCAACCCGCACCACGAGCACGGGTGGGGGTAGCA  
GGGGATCAAAGGGGGACAAAGCCGGCGGGGCGGTTTCGGGGGGGGGGGG  
GGGGGCGGGAGACCGAGTAGGCCCGCCATCCGCGGCCCTCCCGGCAGC  
CACGCCCCCAGCGTCGGGTGTCACGGGGAAAGAGCAGGGGAGAGGGGAG  
AGGGGGGGAGAGGGGAGAGGGGGGGAGAGGGGAGAGGGGGGGAGAGG  
GGAGAGGGGGGGAGAGGGGAGAGGGGGGGAGAGGGGAGAGGGGGGGA  
GAGGGGAGAGGGGGGGAGAGGGGAGAGGGGGGGAGAGGGGAGAGGGG  
GGGAGAGGGGGGGAGAGGGGAGAGGGGGTATATAAACCAACGAAAAGCG  
CGGAACGGGGATACGGGGCTTGTGTGGCACGACGTAGTGGTTGTGTTACT  
GGCAAACACTTGGGGACTGTAGGTTTCTGTGGGTGCCGACCCTAGGCGCT  
ATGGGGATTTTGGGTTGGGTCGGGCTTATTGTCGTTGGGGTTTTGTGTGTC  
GGGGGGGCTTGCCTTCAACCGAATATGTTATTCGGAGTCGGGTGGCTCGAG  
AGGTGGGGGATATATTAAGGTGCCTTGTGTGCCGCTCCCGTCTGACGATCT  
TGATTGGCGTTACGAGACCCCTCGGCTATAAACTATGCTTTGATAGACGGT  
ATATTTTTCGCTTATCACTGTCCCGGATTGGACACGGTCTTGTG.

**supplementary results 4**

**HSV-1-LXMW LAP2 (116797-118797bp)**

GTGGAGGTGGGTCCGTGGGGGTGTCCAGATCAATAACGACAAACGGCCCC  
TCGTTCCCTACCAGACAAGCTATCGTAGGGGGGGCGGGGATCAGCAAACGC  
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