

Replicating and non-replicating MV derivatives

> DNA MOLECULES PRODUCING CUSTOM DESIGNED REPLICATING AND NON-REPLICATING
NEGATIVE STRANDED RNA VIRUSES AND USES THERE OF
> Vishwas Dattatraya Joshi,
> Sequence Listing

>New Construct-Seq ID # 1: pMTXP1T

AAGCTTGGCTAGCACATCCTCTTGGTCCTATCACGGTTATGAGGTCGACCAGTTGTTGCTTTGATGTTTCGTTCTCTCG
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Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 2: Modified Pst_1 region

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>New Construct-Seq ID # 3: Age_MVuptoSpe_Age fragment

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Replicating and non-replicating MV derivatives

>New Construct-Seq ID # 4: pMTXPlT-Intermediate

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Replicating and non-replicating MV derivatives

GGGCACTTCGCCGGTCCCGACTTCCAGAATTTCCGTGTGGTCTGTGAATTTATCACCGCTACACTGTTCATCATATTCCA
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 CCAGTCGACCAACTAGTACAACCTAAATCCATTATAAAAACTTAGGAGCAAAGTGATTGCCTCCCAAGTTCCACATC
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>New Construct-Seq ID # 5: Pml I || L2 || EcoRI fragment

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 AAGTCAGAGAAACAGATTATTATGACGGGGGGTTTGAACGTGAGTGGGTTTTTAAGGTAACAGTCAAGGAGACCAAAG
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Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 6: PmlI L1 PmlI fragment

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Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 7: pMTXPlT-High

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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 AGGCTATACACCCAGAGCCATAGGAGGCACCTTGTGGAATTTGTTACATGGTCCACACCCCAACTATATCACATTTT
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>New Construct-Seq ID # 8: pMTXP1T-NP-RE1-FH-RE2-RE3

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 CAGTAAGAGAATTATGCAGTGCTGCCATAACCATGAGTGATAACACTGCGGCCAATTACTTCTGACAACGATCGGAGG

Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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GTACAGTGCACAGTCACTCCGGGAAGATCGAACCATCGCAGATAGGGCTGCTAGTGAACCAATCTCATGATGTACCCA
GACATCAGCATACCCA

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Replicating and non-replicating MV derivatives

>New Construct-Seq ID # 9: pMV

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

CCTGCCCTTAGGTGTTGGCAGATCCACAGCAAAGCCCGAAAACTCCTCAAAGAGGCCACTGAGCTTGACATAGTTGTT
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Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 10 GMCSF-ires-PAP

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>New Construct-Seq ID # 11 GMCSF-ires-CytD

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>New Construct-Seq ID # 12 GMCSF-ires-sPD1-2A-PAP

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Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 13 GMCSF-ires-sPD1-2A-CytD

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>New Construct-Seq ID # 14 GMCSF-ires-sPD1-2A-DnG1-ires-PAP

Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 15 GMCSF-ires-sPD1-2A-DnG1-ires-CytD

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 GACCTTCTGGCAAGAGCTTGTATCCAAATGTTTAACTGAATATTCATCAAATAAGTGTTCCAAACCAAATGTTGAGA
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Replicating and non-replicating MV derivatives

GGCAAGCAAGTGGGATCAGAAGGGTATGGACATTGCCTATGAGGAGGCGCCTTAGGTTACAAAGAGGGTGGTGTTCCT
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>New Construct-Seq ID # 16: plasmid encoding pMV-GP

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

CACAATCCGGAATGCTCAAGCTTCAGGTGAAGGGTTAACACATGAGCAGTGCGTTGATAACTGGAGATCTTTTGCTGGA
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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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 CTGCACCCGCCCCGCTCGCCAGCCCCAGCACGCAGCCCTGGGAGCATGTGAATGCCATCCAGGAGGCCCCGGCTCTCCT
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>New Construct-Seq ID # 17: pMV-GC

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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 GCAGGCTGTTTGTGAGAAACATCGGTGATCCAGTAACATCATCAATTGCTGATCTCAAGAGAATGATTCTCGCCTCACT
 AATGCCCTGAAGAGACCTCCATCAAGTAATGACACAACAACCGGGGGACTCTTCATTCTAGACTGGGCTAGCGACCCT
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 CTTGAGGTCCCTGATGTACTAGAATCTATGCGAGGCCACCTTATTCGGCGTCATGAGACATGTGTCTATCTGCGAGTGTG
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Replicating and non-replicating MV derivatives

AGTCCCATATATTGGTTCTACCACTGATGAGAGAACAGACATGAAGCTTGCCTTCGTAAGAGCCCCAAGTCGATCCTTG
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AATCAACCAGGCCACCTCAGACTCTTTGTGACAAGGATCATGCAGGAATTTGAAAGTGACACGTTTTTCCAGAAATTG

Replicating and non-replicating MV derivatives

ATTTGGGGAAATATAAACTTCTCCAGAAATACCCAGGCGTCTCTCTGAGGTCCAGGAGGAAAAAGGCATCAAGTATAA
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Replicating and non-replicating MV derivatives

GTTGGTGAATTTAGATTGGAGAGAAAATGGTTGGATGTGGTGAGGAACAGGATTGCCGAGGACCTCTCCTTACGCCGAT
 TCATGGTCGCTCTAATCCTGGATATCAAGAGAACACCCGGAACAAACCCAGGATTGCTGAAATGATATGTGACATTGA
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>New Construct-Seq ID # 18: Helper plasmid

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Replicating and non-replicating MV derivatives

GATGGTAAGCCCTCCCGTATCGTAGTTATCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCG
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Replicating and non-replicating MV derivatives

CCGATCGGGAAAAAGATGAGCTCAGCCGTCGGGTTTGTTCCTGACACCGGCCCTGCATCACGCAGTGTAATCCGCTCCA
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TCTCATTTGTATATCAGATAAGAAGTTGATACTAATTTATATAACCAAGAAGGATGCTTCTAGGTTGGGTGTTTT
AGAAACATTGTTTCGACTCGAGAAAGATACCGGATCATCTAACCGGTATTACATCTTACGTCGAAACAGATTGTTGC

Replicating and non-replicating MV derivatives

GTGATCCCGATGATAGATCATCCCAGGATACCCAGCTCCCGCAAGCTAGAGCTGAGGGCAGAGCTATGTACCAACCCAT
TGATATATGATAATGCACCTTTAATTGACAGAGATACAACAAGGCTATACACCCAGAGCCATAGGAGGCACCTTGTGGA
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>New Construct-Seq ID # 19: Modified Afe I-Not I fragment

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CCGC

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>New Construct-Seq ID # 20: pNPFH_GCG

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ATTAATGCCCAATATAACTCTCTCAATAACTGCACGAGGGTAGAGATTGCAGAATACAGGAGACTACTGAGAACAGTT

Replicating and non-replicating MV derivatives

TTGGAACCAATTAGAGATGCACTTAATGCAATGACCCAGAATATAAGACCGGTTTCAGAGTGTAGCTTCAAGTAGGAGAC
ACAAGAGATTTGCGGGAGTAGTCTTGGCAGGTGCGGGCCCTAGGCGTTGCCACAGCTGCTCAGATAACAGCCGGCATTGC
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Replicating and non-replicating MV derivatives

CCCCCCCCCGGCGCGGAGCGGCGGGGCCACCCCGGACCCCTTTTTTTTTTTTTTTTTTTTTTTAAATTCCTGGAACC
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Replicating and non-replicating MV derivatives

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 AGTACACCCAACAAAGAAGGGTAGTTGGTGAATTTAGATTGGAGAGAAAATGGTTGGATGTGGTGAGGAACAGGATTGC
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 AAGC

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>New Construct-Seq ID 21 pMTXPlT-D2G

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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 CACTTCAAGAACTCTGTAGCACC GCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATA
 AGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTGCGGGCTGAACGGGGGGTTCGTG
 CACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTT
 CCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGG
 GAAACGCCTGGTATCTTTATAGTCCTGTGCGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGG
 GGGGCGGAGCCTATGAAAAACGCCAGCAACGCGGCCTTTTTACGGTCTCTGGCCTTTTGCTGGCCTTTTGCTCACATG
 GCTCGAC //

>New Construct-Seq ID # 22 Sequence deleted from pMTXPlT-D2G

TTCCATTTAACCACACGTAACGGAGAACCACACATGATCGTCAGTAGACAAGAGAAAGGGAAAAGTCTTCTGTTTAAAA
 CAGAGGATGGTGTGAACATGTGTACCCCTCATGGCCATGGACCTTGGTGAATTGTGTGAAGATACAATCACGTACAAGTG
 TCCTTTTCTCAAGCAGAATGAACCAGAAGACATAGATTGTTGGTGCAACTCTACGTCCACATGGGTAACCTATGGGACG
 GTACCACCACAGGAGAACACAGAAGAGAAAAAAGA
 //

>New Construct-Seq ID # 23 pMV-GsPP

TAACTGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGCAGGACCACT
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 GCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCTACACGACGGGGAGTCAGGCAACTATGGATGAAC
 GAAATAGACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCATTGGTAACCTGTCAGACCAAGTTTACTCATATATACT
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 AATTTACACAGGAAACAGCTATGACCATGATTACGCCAAGCTCTAGACTGAGGTCGACGGTATACAGCATGATAAGA
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 CTTTATTGTAAACATTATAAGCTGCAATAAACAAGTTGGGGTGGGCGAAGAACTCCAGCATGAGATCCCCGCGCTGGA
 GGATATCCAGCCGGCTCCCGGAAACGATTCCGAAGCCCAACCTTTTCATAGAAGGCGCGGTGGAATCGAAATCTCG
 TGATGGCAGGTTGGGCGTCGCTTGGTCGGTCATTTTGAACCCAGAGTCCCGCTCAGAAGAACTCGTCAAGAAGGCGAT
 AGAAGGCGATGCGCTGCGAATCGGGAGCGGCGATACCGTAAAGCACGAGGAAGCGGTACGCCATTTCGCCGCAAGCTC

Replicating and non-replicating MV derivatives

TTCAGCAATATCACGGGTAGCCAACGCTATGTCCTGATAGCGGTCCGCCACACCCAGCCGGCCACAGTCGATGAATCCA
GAAAAGCGGCCATTTTCCACCATGATATTGGCAAGCAGGCATCGCCATGGGTACAGACGAGATCCTCGCCGTCGGGCA
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TGGAGATTCTCAATTACCACTCGATCCAGACTTCTGGACCGGTGGTTCAGTTAATTGGAACCCCGGATGTAGCGGG
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TGGTTCGAGAACAAGGAAATCTCAGATATTGAAGTGCAAGACCTGAGGGATTCAACATGATTCTGGGTACCATCCTAG
CTCAAATTTGGGTCTTGCTCGCAAGGCGGTTACGGCCCCAGACACGGCAGCTGATTCGGAGCTAAGAAGGTGGATAAA

Replicating and non-replicating MV derivatives

GTACACCCAACAAAGAAGGGTAGTTGGTGAATTTAGATTGGAGAGAAAATGGTTGGATGTGGTGAGGAACAGGATTGCC
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 CACCGGTCAAATCCATTGGGGCAATCTCTTAAGATAGGGGTGGTAGGAATAGGAAGTGAAGCTACAAAGTTATGACT
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Replicating and non-replicating MV derivatives

CAGAATACAGGAGACTACTGAGAACAGTTTTGGAACCAATTAGAGATGCACTTAATGCAATGACCCAGAATATAAGACC
GGTTCAGAGTGTAGCTTCAAGTAGGAGACACAAGAGATTTGCGGGAGTAGTCCTGGCAGGTGCGGCCCTAGGCGTTGCC
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CGGAATGCTCAAGCTTCAGGTGAAGGGTTAACACATGAGCAGTGCGTTGATAACTGGAGATCTTTTGTGGAGTGAAAT
TTGGCTGCTTTATGCCTCTTAGCCTGGATAGTGATCTGACAATGTACCTAAAGGACAAGGCACTTGCTGCTCTCAAAG

Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 24 pMV-GsPDP

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Replicating and non-replicating MV derivatives

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ATCCGTGAACTCCTCAAAAAGGGGAATTCGCTGTACTCCAAAGTCAGTGATAAGGTTTTCCAATGCTTAAGGGACACTA
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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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>New Construct-Seq ID # 25 pMV-GsPC

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

CCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGAAACGCCTGGTATCTTTATAGTCCTG
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>New Construct-Seq ID # 26 pMV-GsPDC

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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Replicating and non-replicating MV derivatives

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GAGGATGTAGTACCGGACAGATTTCGACAACATCCAGGCAAAACACTTATGTGTTCTGGCAGATTTGTACTGTCAACCAG
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ATCCTATCCATTAAGCAACTAAGCTGCATACAAGCAATTGTGGGAGACGCAGTTAGTAGAGGTGATATCAATCCTACTC
TGAAAAAACTTACACCTATAGAGCAGGTGCTGATCAATTGCGGGTTGGCAATTAACGGACCTAAGCTGTGCAAGAATT
GATCCACCATGATGTTGCCCTCAGGGCAAGATGGATTGCTTAATTCTATACTCATCCTCTACAGGGAGTTGGCAAGATT
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GATACAGTGCCCTGATTAAGGACTAATTGGTTGAACTCCGGAACCCTAATCCTGCCCTAGGTGGTTAGGCATTATTTGC
AATAGATTAAAGAAAATTTGAAAATACGAAGTTTCTATTCCAGCTTTGTCTGGTGCCGGCCATGGTCCCAGCCTCCT

Replicating and non-replicating MV derivatives

CGCTGGCGGGCCGGTGGGCAACATTCGAGGGGACCGTCCCCTCGGTAATGGCGAATGGGACCGTTTAAACGTATCTAGA
 TGCATTTCGCGAGGTACCGAGCTCGAATTCAGTGGCCGTCGTTTACAACGTCGTGACTGGGAAAACCTGGCGTTACCC
 AACTTAATCGCCTTGACGACATCCCCCTTTCCGCGAGCTGGCGTAATAGCGAAGAGGCCCCGACCCGATCGCCCTTCCCA
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 CGCCCTGACGGGCTTGTCTGCTCCCGGCATCCGCTTACAGACAAGCTGTGACCGTCTCCGGGAGCTGCATGTGTGACAG
 GTTTTACCGTCATCACCAGAACGCGCGAGACGAAAGGGCCTCGTGATACGCCTATTTTTATAGGTAAATGTCATGATA
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 ATTCAAATATGTATCCGCTCATGAGACAATAACCCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGATATGAGTAT
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 AGAGTTTTTCGCCCCGAAGAACGTTTTTCCAATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGGTATTATCCCGTAT
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 GTGAGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACGCCAAGCTTGCATGCAGGCCTCTGCAGTCGA
 CGGGCCCGGGATCCGATGGGTTTAAACAGCGCTACCAACTTTGTTTGGTCTGATGAGTCCGTGAGGACGAAACCCGGAG
 TCCCGGGTC

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>New Construct-Seq ID # 27 ires-sPD1-2A-DnG1-ires

TTTCTGACATCCGGCGGGTGACTCACACGCGGCCGAGCCACCATGCAGATCCCACAGGCGCCCTGGCCAGTCGTCTG
 GGCGGTGCTACAACTGGGCTGGCGGCCAGGATGGTTCTTAGACTCCCAGACAGGCCCTGGAACCCCCCACCTTCTCC
 CCAGCCCTGCTCGTGGTGACCGAAGGGGACAACGCCACCTTCACTGACGCTTCTCAACACATCGGAGAGCTTCGTGC
 TAACTGGTACCGCATGAGCCCCAGCAACCAGACGGACAAGCTGGCCGCTTCCCCGAGGACCGCAGCCAGCCCGGCCA
 GGACTGCCGCTTCCGTGTACACAACCTGCCAACGGGCGTACTTCCACATGAGCGTGGTCAGGGCCCCGGCGAATGAC
 AGCGGCACCTACCTCTGTGGGGCCATCTCCCTGGCCCCAAGGCGCAGATCAAAGAGAGCCTGCGGGCAGAGCTCAGGG
 TGACAGAGAGAAGGGCAGAAAGTGCCACAGCCACCCAGCCCTCACCCAGGTGAGCGGCCAGTTCCAAGGCTCCGG
 AGCCACGAACCTTCTCTGTAAAGCAAGCAGGAGACGTGGAAGAAAACCCCGGTCCCATGAAGGTACAGCCCAAGCAC
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 ATGTCTTCAGAAACATTCCAAGATAAATGGCAGAGATCTGACCTTCTGGCAAGAGCTTGTATCCAAATGTTTAACTGAA
 TATTCATCAAATAAGTGTTCACAAACCAATGTTTCAAGATTGAAATGGATTGTTTCTGGGCGTACTGCACGGCAATTGA
 AGCATAGCTACTACAGAATAACTCACCTTCCAACAATTCCTGAAATGGTCCCTTAAATTTCTGACATCCGGCGGGTGAC
 TCACAACGCGGCCGCGAGCCACC //

>New Construct-Seq ID # 28 pMV containing ribozymes

ATCGGATCCCGGGCCCGTGCAGTGCAGAGGCTGCATGCAAGCTTGGCGTAATCATGGTCATAGCTGTTTCTGTGTGA

Replicating and non-replicating MV derivatives

AATTGTTATCCGCTCACAATTCACACAACATACGAGCCGGAAGCATAAAGTGTAAAGCCTGGGGTGCCTAATGAGTGA
GCTAACTCACATTAATTGCGTTGCGCTCACTGCCCCGCTTTCCAGTCGGGAAACCTGTCTGTGCCAGCTGCATTAATGAAT
CGGCCAACGCGCGGGGAGAGGCGGTTTTCGCTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGT
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CAGAAGTGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATGTTGCCGGGAAGCTAGAGTAAGTAGTTCCGCCA
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Replicating and non-replicating MV derivatives

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AACTGCAGAAGGAGGGGAGATCCACGAGCTCCTGAGACTCCAATCCAGAGGCAACAACCTTTCCGAAGCTTGGGAAAAC
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TAGCCTCATTGGAACGGGAGATCGCGTCTTTATTGACAGGTGGTGAACCCAATGTGCTCGAAAGTCACCCCTCGGAACC
ATCAGGGCCAGGTGCACCTGCGGGGAATGTCCCGAGTGTGTGAGCAATGCCGCACTGATACAGGAGTGGACACCCGAA
TCTGGTACCACAATCTCCCCGAGATCCCAGAATAATGAAGAAGGGGGAGACTATTATGATGATGAGCTGTTCTCTGATG
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Replicating and non-replicating MV derivatives

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