

Supplementary Material

Figure S1. Nucleotide Sequences for Donor Construction

NRGp42 donor sequence (3180 bp)

ROH up soc - Golden Gate site - RBS - nluc:cbm - Terminator - ROH down soc

CGCACTTTCGTCGCGTAATTATAAAATTTATTTTCCTTTATCTATTTTCCAATCATATATTG
AATCATATGAATAGAAGGATAACGGTTTATTATTATAATATGCTTCAGCAACATCAA
TATAGTTAGATTTAGTAAATGCTTGAATTGCCATAAATGGAGAATTTTGTACAGTTT
CAATAATTCCGATCTTTTTAAGTTTTATTTCAACATCTTCTGGAATTGGCATTGAAAT
AAAATCTTCTACTAGATACATATTATTGTCATATCTTTTATCAATCATTACTGCTACA
GTAATTGGAACATCCTTGACAAACGCCATACTAATACTATTGATAGACATTTCAAAC
AAAATTGCTTCCATAATTTTCCTCAATCACAAGATGTAGATGAACAACTAGAATCAC
AAGAACTTCCACATGAATCACCTGCCCATACATGAACAGGAACATTAGTATCATATG
AATCAGAACTAGACTGTGTATTCTGTGTGTTAGATGATGTAGTAGGTGTTGACCAGC
GCCAAGGATTTTTATAATATTCTTGGGCTTCTTCATAAGTCATAGTAACTGCTTCTAC
TGTTCCATCTCCCATATAAACATATTCAACTACAGTTAAAGGAAGGTAGTCATTTGA
AATAGGAACTACACCTTCCCCAGGAGTTGTAGAGAAAAAATCCGTAAAGAACTTT
TAAACCAATTAAGATAAACATTACAAAAAGCCTCTTTTGAATTCGACTTGCTTCTC
ACCATAATCATATCGAATCTCTGCATTAAATTCGACAGAACCATCTGCGTACATCAT
AAATGAATGCACAACAACCTTCTGTAGACCATGGTTGTAGTTCATATTTCTTCATTAC
ATGTCGTGAAATGATAATATCTAAATCTTCATTTGGTTTAATCCAACGATTTAACATA
GTACTCTCCTCTATAAGATAATTCTATTATACCATACTCATTTTGGAAAGTAAACCAT
TTAAATGAAAAAATGACTCCCGAAGGAGTCTTGAGTTAGGACCAAAAACGAAAAAAG
GCCCCCCTTTCGGCATGGCTCAGTGAGCTGGGACCAAAACGAAAAAAGGCCCCCCCA
GTGAGCTGGGACCAAAACGAAAAAAGGCCCCCCCGACATAGCGCATGGCTCAGTGAG
CTGGGACCAAAACGAAAAAAGGCCCCCCCTTTCGGGAGGCCTCTTTTCTGGAATTTGG
TACCGAGTTATCCGACAGTGCAAGGGGTTCCATTCAAGGAAAATGCTGTTGGTGCTG
CGTTTGTCCCTGTATGAGAGCCATTGAAGCCAAACTGTGCGGTCCCGCCCGCTGGGA
TGCTTCCATTCCAGGGCGCGTTACGGACAGTAACAGCAGAACCAGATTGTGTAACCG
TAGAACTCCACGCCTGTGTCACTTGCTGACCTGAGGGGAAAGAAAAGGTCAGTGTC
CAACCATCCACAGGAGCGGAGCTTGTGTTCTTGACAGTAACGTTTCGCCGTAAAGCCT
GTGTTCCACTGGTTGACCCCCCATAAACTTGGCAACCGGCCGGACCTGACGTAGGG
CCGCTCGAGCCAGCCAAAATGCGCTCACAAAGACGCCAGCCCGTGACCCCGTTGAT
CGTAACACGAAACAGCAAAGAGCCGTCCGGGTAAATCAGACGTTTCGTCAATGATTTT
ATTGCCATTCCACAATGTTCCAGTTACAGTGATCTTCTTGCCGTGCAACACTGCGATC
CCTTCATAGGGGCGGCCAAAGTAGTCAATCATATTAGGCGTAACGCCATCAATGACC
AGCGTGCCGTAAATGAAGAATAACCTTGAAGTGATGGTCATCAACCGGGTAGACGAC
TTTGAAGATTTTCTCAATCTGACCCATCTGATCCCCCGACAGCCCCTCATAGGGGAT
AATAACATGGATGTCGATTTTAAAGCCCGTTTCTCCACTAAGGACAATGCGCTGGAT
GGGTGTAACCGAAACGCCCAAATTTTGAAAAAGTGAACCTGACACCTCCCTGTTCCAG
TACTTGGTCTAAATTGTAACCGGCTGTCTGGCGCCAGTCACCTACGAAATCCTCCAA
AGTGAATACCATGTAATTCTCCTTTATTTAAATTACATGATTAAACAGCATAGCTCT
AAAACGAGACCTTTGAGCTTCCGAGACTGGTCTCAGTTTTGGGACCGTAATTCTCCT
TTATTTAAATTACATGATTATTTATACATCTTCTTTTCTGAATAAGTAAATTAAATTC

TTAAGAGCCGAACTTGTTACATCATATTTTCCTTTAAGCGCCTTTACAACCGGGCCTG
 TTGCTGGTTTACCTAAAGAAACCCATAACTCGTGTATTTTCGCTTTTAAAGTGGTTCATG
 CCAATGCGGTGCTTTTCTTTGCGCCCTTGAAGTTCCTTCTGAAATCTTTTTATTTCCGC
 CATTTCGAATAAAACTTTTTCTTACTTCAGATTGCCGAGCTTTTCTTTCTGCCCTATTT
 TGGGCTATACGTTGTGAATTCTTCATCCGAGTTTTTGTTCAGGATTGTTTAATCTAA
 GTTTATGTTCTAATCGTTGTTGCTCAGTCCATTTTCTTCCTTCTCCACCCTGACCACCA
 GGAGAAATATTAATGCAAGTATCTGGGTGTTTACGTTTTAATGCAGATATTAGCTCA
 CGTTAAACTTCATATGATTTTTCTCTAGAACCATGGCATTGTTGACCATCGTATTTTAT
 AATTAATCCATACTTACGATATATGTTCCATAGTATTTTACCTGAACCCGGATATTT
 ATCATTATATGGATTTACAATAAATGATTCATGTTTCCCAGCGTACCAAAAGACGCC
 TTTCGGCGTCCTAACTTTTACTATATATGTTCTATAAAATTTTTGTTTAAATATCCATTA
 TCTTGACGTTCAAATTATGTTTGTTCCTTCAGATAATAAAGTTTAAAGATTTCTTCCG
 CATTCAATTCCAAGGCCAACAAACATATTTAATACGAAATGAAATATATCCACAAGCT
 CAAATTTAATTTTCGAGCTGGTCTTCGGGGGACATTTTCATCAATGCGTTTTTCTTGCGC
 TTCAATATAACGTGCTTTCCATTTTTTCCATACAGCAGAAGCTTCTTTTTCACCACGT
 GACATTTACCAAGAGAAGTCAGAAGTTCGCGGAATTCATCATCAATACAGTCTTTT
 TGTTACGCATCCAAGAAACAACATC

Table S1. Promoter sequences

Promoter Class	Abbreviated Name	Associated Gene	Sequence 5'-3'
Early	E1	<i>gp55</i>	GAGAAGTATTATAATCAAAATCATCATCAATGTAACTGATTTT TTCAACTTTCTTACTTCACCGCGTAA
	E2	<i>motB</i>	TGGTGTATAGTACCACAATAACCGAGGAAGTAAACAACTTT TTATCGTTTTGTTGGAAGAGATAGAGG
	E3	<i>ndd</i>	TAGTTGTATAGTACCACGGTCCTTGTGGTATGTAACTGTTTTG TGAAATTTTTTAAATGGAAAGATACC
	E4	<i>ipl</i>	TGAGGTAATAGTATCACTACCTCATCAGTATGTAAACAACTTT GTGAAATTATTTTAAATCATCTGCCCA
	E5	<i>dna ligase</i>	TAAGATAATACTATCACAAAGGAAGTATACTGTAAACAACTTTG TGCAATCTTTGAAAAATAAAAAAGGA
Middle	M1	<i>gp34i</i>	AGCTTCGACCTGCGTAGCTACACGAAGTGTACCACGTTGTGTC TCATTTGCTTCAAGAATATTAAGTGTATAATGGTCCCAGAGAGT TC
	M2	<i>gp43</i>	TAGGCTCTTGATATATTATACTCCAAATAAGGGGGCCGAAGCCC CTTGCTTAATTACCAATCGTATATTTAGGAACGAGCTTCCATTC ATG
	M3	<i>rIIA</i>	TGCGGTGTCGGATTGAATTTTATCTCTAATATCTTTAAAGCGGG TTTTAAATCTTCGGCTTCTCCCATATCGAAAAAGCGTTGAATG AT

Late	M4	<i>gp46</i>	CTTTTAGACCATTCTATCATATCATCATAATCTAAAAAGTATTCA TCAAATTCAGCCATGCAAACAACGCCTTGTGCTGTTTTGATGT AGTGCGGTATGAGTTAATAATAACAAATAATTCTTAAAGCATAT
	M5	tRNA ^{scl}	TTACCATTTATGATGATACGTATTTACGATACATTCAAGACCCA A
	L1	<i>soc</i>	CTTAAGAATTTAATTTACTTATTCAGAAAAGAAGATGTATAAAT AATCATGTAATTTAAATAAAGGAGAA
	L2	<i>gp23</i>	AGAAATCTAATAAAGATGAAAGCACTATTACTGAGAGTATAAA TACTCCTGATACTGAAGCAGCCGGACT
	L3	<i>gp22</i>	GCCTATATGGCTCTCGCAGAGGCCATGAAAAAAGCGTTATAAA TATTATTATCTAAACAACAGGACTACA
	L4	<i>gp18</i>	GCTGAGTATGTTCCAGTATCTCATGGTATGTCAATGGTATAAAT ATATTAAAGCATATTAAAGAGGATTA
	L5	<i>gp67</i>	TTAAAGGTATAATCACAGAAGATGAGTGGAATGATGAAATAA ATAATATTAAGATAGAATTCATCGGGA