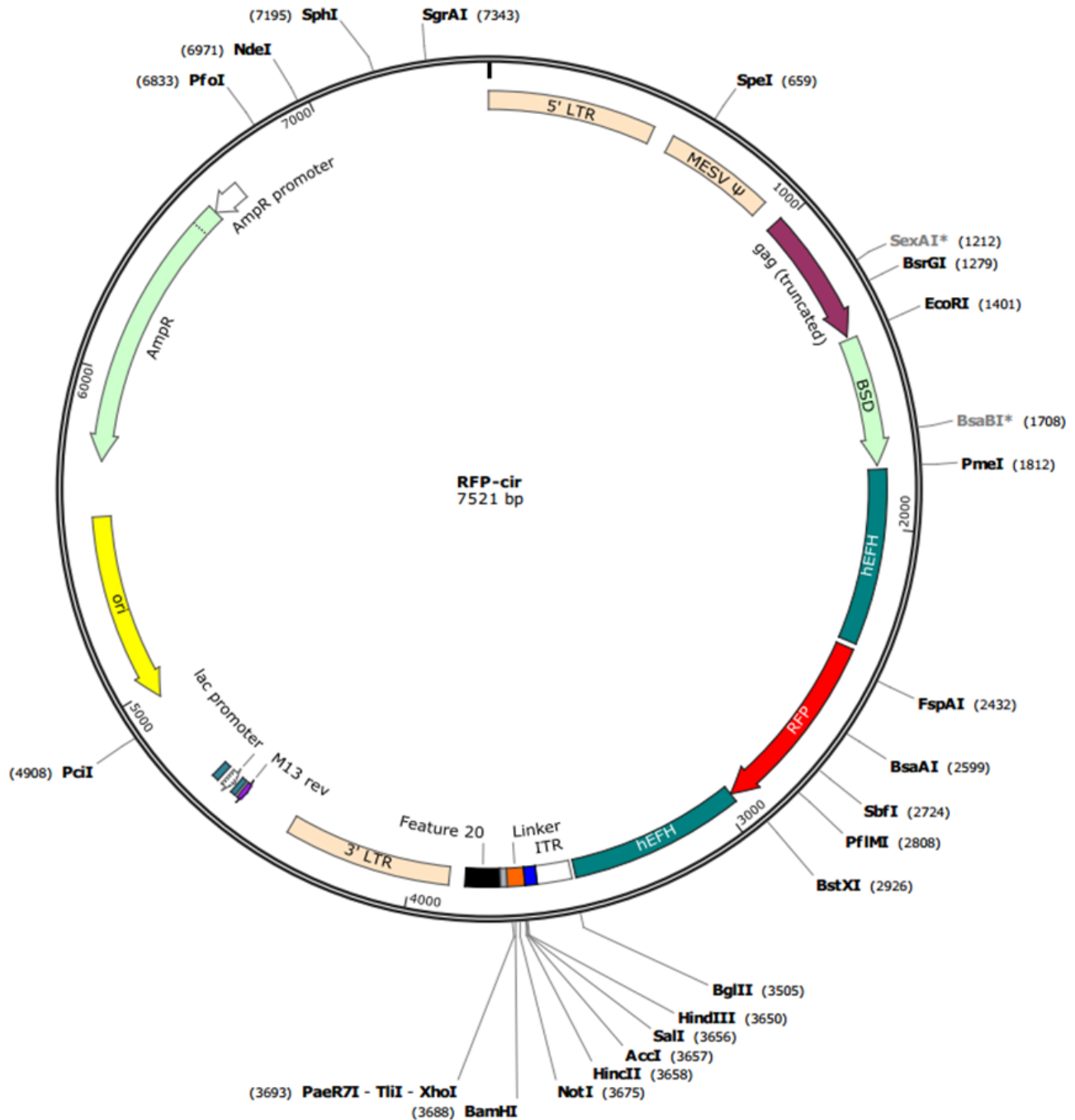


**Vector:** pSEBR-CIR (aka, CAntimiR, circular RNA/anti-miR and mRFP co-expression vector)

**Antibiotic Selection:** Amp

**Creator(s):** Yi Shu, Molecular Oncology Laboratory, The University of Chicago Medical Center

**Date of Construction:** May, 2017



## pSEBR-CIR Full-length Sequence

TGAAAGACCCACCTGTAGGTTTGGCAAGCTAGCTTAAGTAACGCCATTTTGAAGGCATGGAAAATACATAACTGAGAATAGAGAAGTTA  
GATCAAGGTTAGGAACAGAGACAGCAGAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCCCTCCCGGCTCAGGGCCAAGAACAG  
ATGGTCCCCAGATGCGGTCCCGCCCTCAGCAGTTTCTAGAGAACCATCAGATGTTTCCAGGGTGCCCCAAGGACCTGAAATGACCCTGTGC  
CTATTTGAACTAACCAATCAGTTTCGCTTCTCGCTTCTGTTTCGCGCGCTTCTGCTCCCGAGCTCAATAAAAAGAGCCCACAACCCCTCACT  
CGGCGCGCCAGTCTCCGATAGACTGCGTCGCCCCGGTACCCTGATTTCCCAATAAAGCCTCTTGCTGTTTGCATCCGAATCGTGGACTCGC  
TGATCCTTGGGAGGGTCTCCTCAGATTGATTGACTGCCACCTCGGGGTCTTTCATTTGGAGGTTCCACCAGATTGGAGACCCCTGCC  
CAGGGACCACCAGCCCCCGCCGGGAGGTAAGCTGGCCAGCGGTCGTTTCGTGTCTGTCTCTGTCTTTGTGCGTGTGTGTGCCGGCATCT  
AATGTTTGCCTGCGTCTGTACTAGTTAGCTAAGTACTGCTGTATCTGGCGGACCCGTGGTGAAGTGCAGAGTTCTGAACACCCGGCCG  
CAACCTGGGAGACGTCCAGGGACTTTGGGGCCGTTTTTGTGGCCGACCTGAGGAAGGGAGTCGATGTGAATCCGACCCCGTCAGGA  
TATGTGGTCTGGTAGGAGACGAGAACCTAAAACAGTTCCCGCCTCCGCTGAATTTTTGCTTTCGGTTTGGAAACCGAAGCCGCGCTCT  
GTCTGTGCAGCGCTGCAGCATCGTTCTGTGTGTCTCTGTCTGACTGTGTTCTGTATTTGTCTGAAAATTAGGGCCAGACTGTTACCAC  
TCCCTTAAGTTTACCTTAGTCACTGGAAAGATGTCGAGCGGATCGCTCACAACAGTCGGTAGATGTCAAGAAGAGACGTTGGGTTACC  
TTCTGCTCTGCAGAATGGCCAACCTTTAACGTCGGATGGCCGCGAGACGGCACCTTTAACCGAGACCTCATCACCCAGGTTAAGATCAAG  
TCTTTTACCTGGCCCGCATGACACCCAGGTCCTCCCTACATCGTGACTGACCTGGGAAGCCTTGGCTTTTGACCCCTCCCTGGGTCAAG  
CCTTTGTACAGCTAACCTCCGCTCCTCTCCTCCATCCGCCCCGCTCTCCTCCCTTGAACCTCCTCGACTCCAGCCCGCTCGATCCTC  
CCTTTATCCAGCCTCACTCCTCTCTAGGCGCCGAATCACCATGGCCAACCTTTGTCTCAAGAAGAATCCACCCCTCATGAAAGAGC  
AACGGCTACAATCAACAGCATCCCCATCTCTGAAGACTACAGCGTCGCCAGCGCAGCTCTCTCTAGCGACGGCCGATCTTCACTGGTGT  
AATGTATATCAATTTACTGGGGACCTTGTGCAAGACTCGTGGTGTGGGACTGCTGCTGCTGCGGCAGCTGGCAACCTGACTTGTATCG  
TCGCGATCGAAATGAGAACAGGGGCATCTTGAGCCCTGCGGACGGTCCGACAGGTGCTTCTCGATCTGCATCCTGGGATCAAAGCCAT  
AGTGAAGGACAGTGATGGACACCCGACGGCAGTTGGGATTCGTGAATTGCTGCCCTCTGGTTATGTGTGGGAGGGCtaagttaaacaatgc  
agCGCTCCGCTGCCCGTCACTGGGCAGAGCCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTCCGCAATTGAACCGGTGCCCTA  
GAGAAGGTGGCGCGGGGTAAACTGGGAAAGTGATGTCGTGTACTGGCTCCGCTTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCA  
GTAGTCGCCGTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTAGCTTCGAGGGCTCGCATCTCTCCTTACGC  
GCCCGCCGCTTACCTGAGGCCGCCATCCACGCCGTTGAGTCGCGTCTTCCCGCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCG  
TCTAGGTAAGTTAAAGCTCAGGTCGAGACCGGGCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTG  
CCTGACCCTGCTTGCTCAACTCTACGTCTTTGTTTCTGTTTCTGCTTCTGCGCGTTACAGATCCAAGCTGTGACCGGCGCTACccgcgG  
TTccgcccgggaccaccATGcctcctccgaggacgtcatcaaggagttcatgcgcttcaaggtgcgcatggagggtccgtgaacggcca  
cgagttcgagatcgagggcgagggcgagggccgcccctacgagggcaccagaccgccaagctgaaggtgaccaagggcgccccctgcc  
ttcgctgggacatcctgtccctcagttccagtagcggctccaaggcctacgtgaagcaccgcccagacatccccgactacttgaagctgt  
cctccccgagggcttcaagtgggagcgcgtgatgaacttcgaggacggcgcggtggtgaccgtgaccaggaactcctcctcgaggacgg  
cgagttcatctacaaggtgaagctgcgcgccaccaacttccctccgacggccccgtaatgcagaagaagaccatgggctgggagggcctcc  
accgagcggatgtaccccgaggacggcgccctgaagggcgagatcaagatgaggtgaagctgaaggacggcgccactacgacgcccagg  
tcaagaccctacatggccaagaagcccgtgcagctgcccacgcgtagCGTCCGGTGCCCGTCACTGGGCAGAGCGCACATCGCCACA  
GTCCCGAGAAGTTGGGGGAGGGTCCGCAATTGAACCGTGCTTAGAGAAGGTGGCGCGGGTAAACTGGGAAAGTGATGTCGTGACT  
GGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCCGTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAG  
AACACAGCTGAAGCTAGCTTCGAGGGGCTCGCATCTCTCCTTACGCGCCCGCCGCCCTACCTGAGGCCGCCATCCACGCCGTTGAGTCG  
CGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCCGCTTAGGTAAGTTTTAAAGCTCAGGTCGAGACCGGGCTTTGTCCG  
GGCTCCCTTGAGCCTACCTAGACTCAGCCGCTCTCCACGCTTTGCCGTAACCTGCTTGTCAACTCTACGTCTTTGTTTCGTTTTCTG  
TTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACgctagcAgatctcagtatgaaattacagtgctcgcgagtttagactatgtaag  
cagaatthtaaatcattthtaagagcccagtaactcatatccatttctcccgtccttctgagcctTCCTGACATTTTTTTTTCTTCCAT  
TTCAGCAGGaaagcttgtcgacacgcgtagtactgcgcccgaggcctggtcctcgagAAGGTGAGTCACTAACAAATTTTGTGCGAaggc  
tgcagaagagcgggagaaatggatatgaagtactgggctctthaaaaatgattaaaattctgcttacatagtctaactcgcgacactgta  
atthcatactggattaaCGATAAAAATAAAGATTTTTATTTAGTCTCCAGAAAAGGGGGGAATGAAAGACCCACCTGTAGGTTTGGCAAG  
CTAGCTTAAGTAACGCCATTTTGAAGGCATGGAAAATACATAACTGAGAATAGAGAAGTTCAGATCAAGGTTAGGAACAGAGACAGCA  
GAATATGGGCCAAAACAGGATATCTGTGGTAAGCAGTTTCTGCCCGGCTCAGGGCCAAGAACAGATGGTCCCCAGATGCGGTCCCGCCCTC  
AGCAGTTTCTAGAGAACCATCAGATGTTTCCAGGGTCCCCAAGGACCTGAAATGACCCTGTGCCCTTATTTGAACTAACCAATCAGTTTCG  
TTCTCGCTTCTGTTTCGCGCGCTTCTGCTCCCGAGCTCAATAAAAAGAGCCCACAACCCCTCACTCGGCGCGCCAGTCTCCGATAGACTGC  
GTGCCCCGGTACCCGTGTATCCAATAAACCTCTTGCAGTTGCATCCGACTTGTGGTCTCGCTGTTCTTGGGAGGGTCTCCTCTGAGTG  
ATTGACTACCCGTCAGCGGGGTCTTTTCATGGGTAACAGTTTCTTGAAGTTGGAGAACAACATTTCTGAGGGTAGGAGTCGAATATTAAGTA  
ATCCTGACTCAATAGCCACTGTTTTGAATCCACATACTCCAATACTCTGAAATAGTTTCAATATGGACAGCGCAGAAGAGCTGGGGAGAA  
TTAATTCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATTTGTTATCCGCTCACAATCCACACAACATACGAGCCGGAAGCATAAAGTG  
TAAAGCCTGGGGTGCTAATGAGTGAGCTAATCACATTAATTCGCTTGCCTCACTGCCCGCTTTCCAGTCGGGAAACCTGTGCTGCCAG  
CTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTTGCGTATTGGGCGCTTCCGCTTCCCTCGCTCACTGACTCGCTGCGCTCGG  
TCGTTCCGCTGCGGCGAGCGGTATCAGCTCAAAAGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTG  
AGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAA

AATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTG  
 TTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAG  
 TTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCAGGAAACCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTT  
 GAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAG  
 AGTTCTTGAAGTGGTGGCCTAACTACGGCACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGA  
 GTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGC AAGCAGCAGATTACGGCAGAAAAAAGGAT  
 CTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAACTCACGTTAAGGGATTTTGGTCATGAGATTATCAAA  
 AAGGATCTTACCTAGATCCTTTTAAATTAATAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAACTTGGTCTGACAGTTACCAA  
 TGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTATCCATAGTTGCCTGACTCCCCGTCGTGTAGATAACTACGATAC  
 GGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGC  
 CGGAAGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTTGCCGGAAGCTAGAGTAAGTAGTTCC  
 CAGTTAATAGTTTGCACAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCTGTTGGTATGGCTTCATTCAGCTCCGGTT  
 CCCAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCCTCGGTCTCCGATCGTTGTGAGAAGTAAGTT  
 GGCCGAGTGTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACTGTATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAG  
 TACTCAACCAAGTCTTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTCCCCGGCGTCAATACGGGATAAATACCGCCACACATAGCA  
 GAACCTTTAAAGTGCTCATCATTTGAAAACGTTCTTCCGGGGCGAAAACCTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACC  
 CACTCGTGACCCCACTGATCTTCAGCATCTTTACTTTTACCAGCGTTTTCTGGGTGAGCAAAAACAGGAAGGCAAAAATGCCGCAAAAAAG  
 GGAATAAGGGCGACACGAAAATGTTGAATACTCATACTCTTCTTTTTTCAATATTATTGAAGCATTATCAGGGTTATTGTCTCATGAGCG  
 GATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGACGCTCTAAGAAACCAT  
 TATTATCATGACATTAACCTATAAAAAATAGGCGTATCACGAGGCCCTTTCGTCTCGCGCTTTCGGTGATGACGGTGAAAACCTCTGACAC  
 ATGCAGCTCCCGAGACGGTCACAGCTTGTCTGTAAGCGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTCAGCGGGTGTGGCGGGT  
 GTCGGGGCTGGCTTAACTATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGCGGTGTGAAATACCGCACAGATGCGTAAGGAG  
 AAAATACCGCATCAGGCGCCATTCGCCATTACAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCTCTTCGCTATTACGCCAGCTG  
 GCGAAAGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAACGCCAGGGTTTTTCCAGTCACGACGTTGTAAAACGACGGCGCAAGGAATGG  
 TGCATGCAAGGAGATGGCGCCAAACAGTCCCCCGCCACGGGGCTGCCACCATACCCACGCCGAAAACAAGCGCTCATGAGCCGAAAGTGG  
 CGAGCCCGATCTTCCCATCGGTGATGTGCGGATATAGGCGCCAGCAACCGCACCTGTGGCGCCGGTGTGCGGGCCAGATGCGTCCGG  
 CGTAGAGGGGATTAGTCCAATTTGTTAAAGACAGGATATCAGTGGTCCAGGCTCTAGTTTTGACTCAACAATATCACCAGCTGAAGCCTAT  
 AGAGTACGAGCCATAGATAAAAATAAAGATTTTATTTAGTCTCCAGAAAAAGGGGGAA

## Enzymes that don't cut

#	Enzyme	Specificity	17	DraIII	CACNNNGTG
1	AleI	CACNNNGTG	18	FseI	GGCCGGCC
2	ApaI	GGGCCC	19	HpaI	GTTAAC
3	AsiSI	GCGATCGC	20	NsiI	ATGCAT
4	AvrII	CCTAGG	21	PacI	TTAATTTAA
5	BclI	TGATCA	22	PmlI	CACGTG
6	BfuAI	ACCTGCNNNNNNNN	23	PshAI	GACNNNGTC
7	BlpI	GCTNAGC	24	PsiI	TTATAA
8	BmgBI	CACGTC	25	PspOMI	GGGCC
9	BsiWI	CGTACG	26	PspXI	VCTCGAGB
10	BsmI	GAATGCN	27	RsrII	CGGWCCG
11	BspDI	ATCGAT	28	SfiI	GGCCNNNNNGGCC
12	BspEI	TCCGGA	29	SnaBI	TACGTA
13	BspMI	ACCTGCNNNNNNNN	30	SrfI	GCCCGGGC
14	BstBI	TTCGAA	31	SwaI	ATTTAAAT
15	BstZ17I	GTATAC	32	XcmI	CCANNNNNNNNNTGG
16	ClaI	ATCGAT			