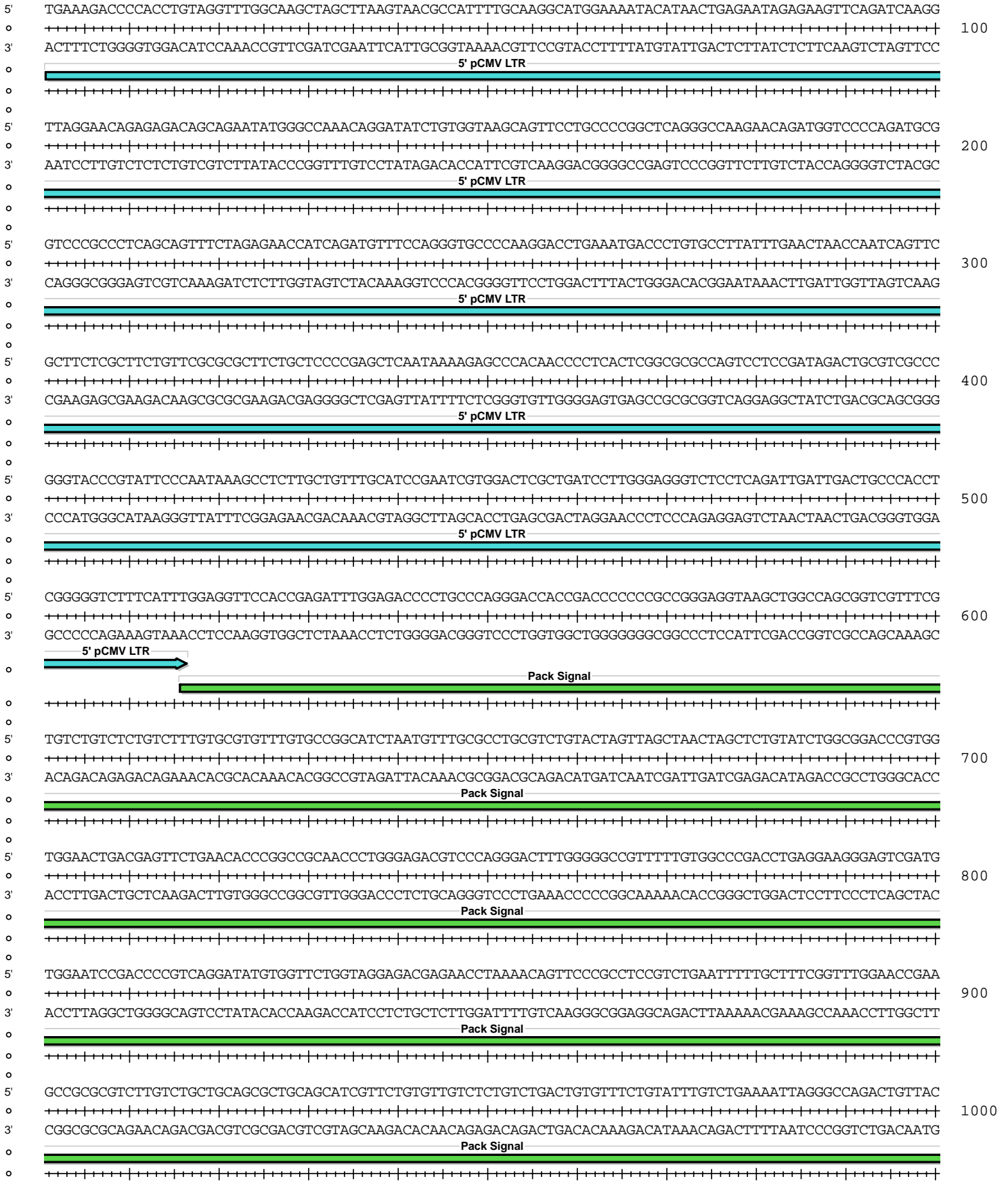


pMSCVpuro-GFP miR-23a

Absent Sites	0	AarI, AbsI, Accl, AjuI, AjuI', AlfI, AlfI', ApaI, AsiSI, AvrII, BamHI, BarI, BarI', BbsI, BpII, BpII', BsaAI, BsaBI, BstBI, BstXI, BstZ17I, CspCI, CspCI', FseI, FspAI, HincII, HpaI, MauBI, MfeI, MluI, MreI, NruI, PacI, PmeI, PmlI, PshAI, PstI, PspOMI, PspXI, PstI, PstI', Sall, SanDI, SbfI, SfiI, SgrDI, SnaBI, SrfI, SmaI, XcmI, XhoI
AfIII	1	4722
ArsI	1	1732
ArsI'	1	1700
BclI	1	2199
BglIII	1	1411
BlnI	1	2752
BsiWI	1	3055
BsmI	1	2910
BspMI	1	2988
BtgZI	1	1559
Clal	1	3653
DraIII	1	3570
EcoRI	1	2469
HindIII	1	2990
NcoI	1	1436
NotI	1	2158
NsiI	1	3652
PciI	1	4722
PfIMI	1	2296
RsrII	1	3115
Scal	1	6095
SgrAI	1	7158

pMSCVpuro-GFP miR-23a



pMSCVpuro-GFP miR-23a

5' CACTCCCTTAAGTTTACCTTAGGTCAGTGGAAAGATGTCGAGCGGATCGCTCACACCAGTCGGTAGATGTCAAGAAGAGACGTTGGGTTACCTTCTGC
 1100
 3' GTGAGGGAATCAAACTGGAATCCAGTGACCTTTCTACAGCTCGCCTAGCGAGTGTGGTCAGCCATCTACAGTTCTTCTCTGCAACCCAATGGAAGACG
 Pack Signal

5' TCTGCAGAATGGCCAACCTTTAACGTCGGATGGCCGCGAGACGGCACCTTTAACCGAGACCTCATCACCAGGTTAAGATCAAGGTCTTTTACCTGGCC
 1200
 3' AGACGCTTACCGGTTGGAATTCAGCCTACCGGCGCTCTGCCGTGGAATTTGGCTCTGGAGTAGTGGGTCCAATTCTAGTTCAGAAAAGTGGACCGG
 Pack Signal

5' CGCATGGACACCCAGACCAGGTCCCCTACATCGTGACCTGGGAAGCCTTGGCTTTTGACCCCCCTCCCTGGGTCAAGCCCTTTGTACACCCTAAGCCTCC
 1300
 3' GCGTACCTGTGGGTCTGGTCCAGGGGATGTAGCACTGGACCCTTCGGAACCGAAACTGGGGGAGGGACCCAGTTCGGGAAACATGTGGGATTCGGAGG
 Pack Signal

5' GCCTCTCTTCTCCATCCGCCCGTCTCTCCCCTTGAACCTCCTCGTTCGACCCCGCCTCGATCCTCCCTTTATCCAGCCCTCACTCCTTCTCTAGGC
 1400
 3' CGGAGGAGAAGGAGGTAGGCGGGGAGAGAGGGGAACTTGGAGGAGCAAGCTGGGGCGGAGCTAGGAGGAAATAGGTGGGAGTGAGGAAGAGATCCG
 Pack Signal

BglII NcoI
 5' GCCGGAATTAGATCTccagcgtgaccggtgcccaccatggtgagcaagggcgaggagctgttcaccggggtggtgcccatcctggtcgagctggacggcg
 1500
 3' CGGCCTTAATCTAGAggtcgactggccagcgtggtaccactcgttcccgtcctcgacaagtggcccccaccagggtaggaccagctcgacctgccgc
 Pa...I GFP

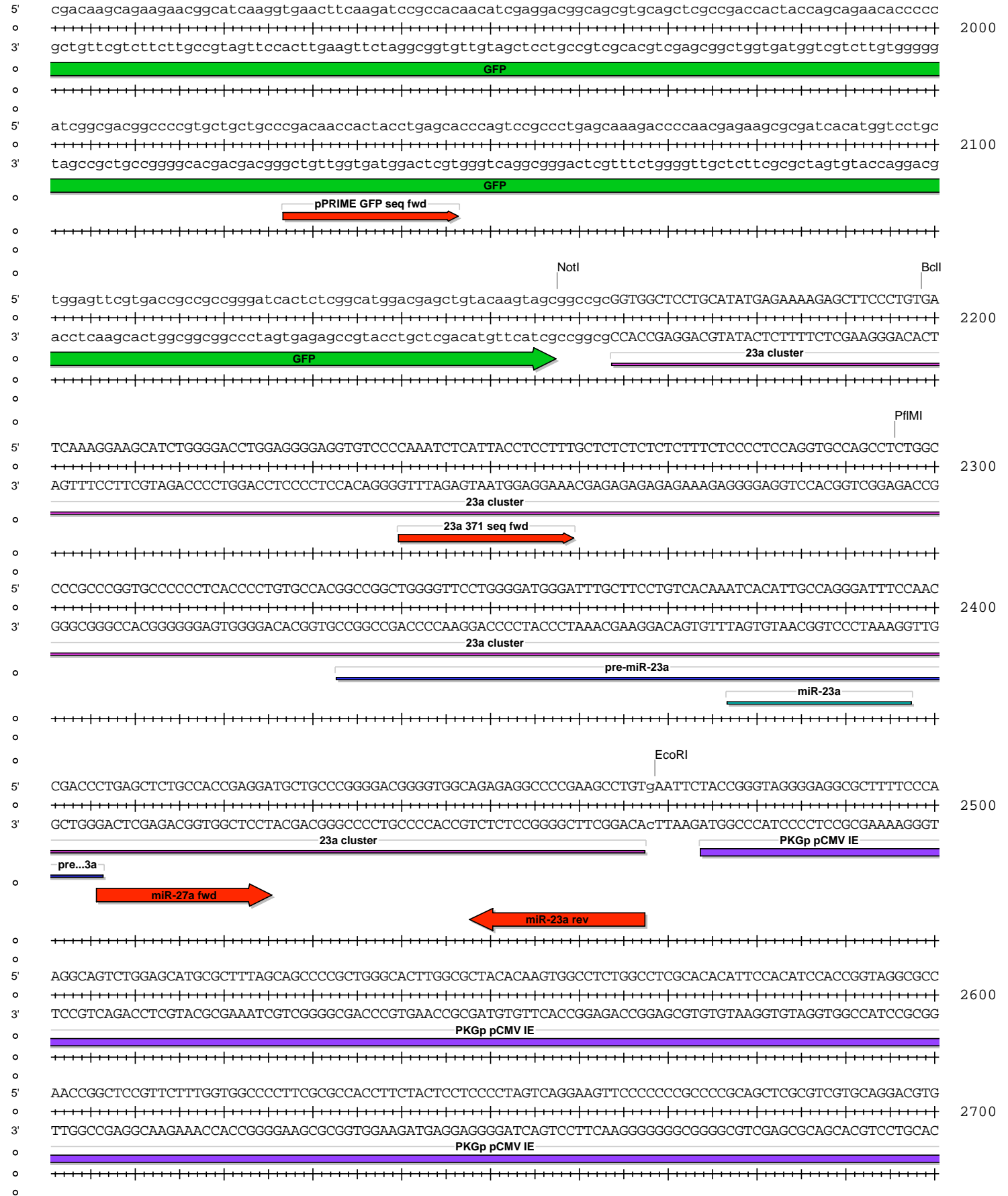
BtgZI
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 3' tgcatttgcgggtgttcaagtcgcacaggccgctcccgtcccgtacggtggatgcccgttcgactgggacttcaagtagacgtggtggccgttcgacgg
 GFP

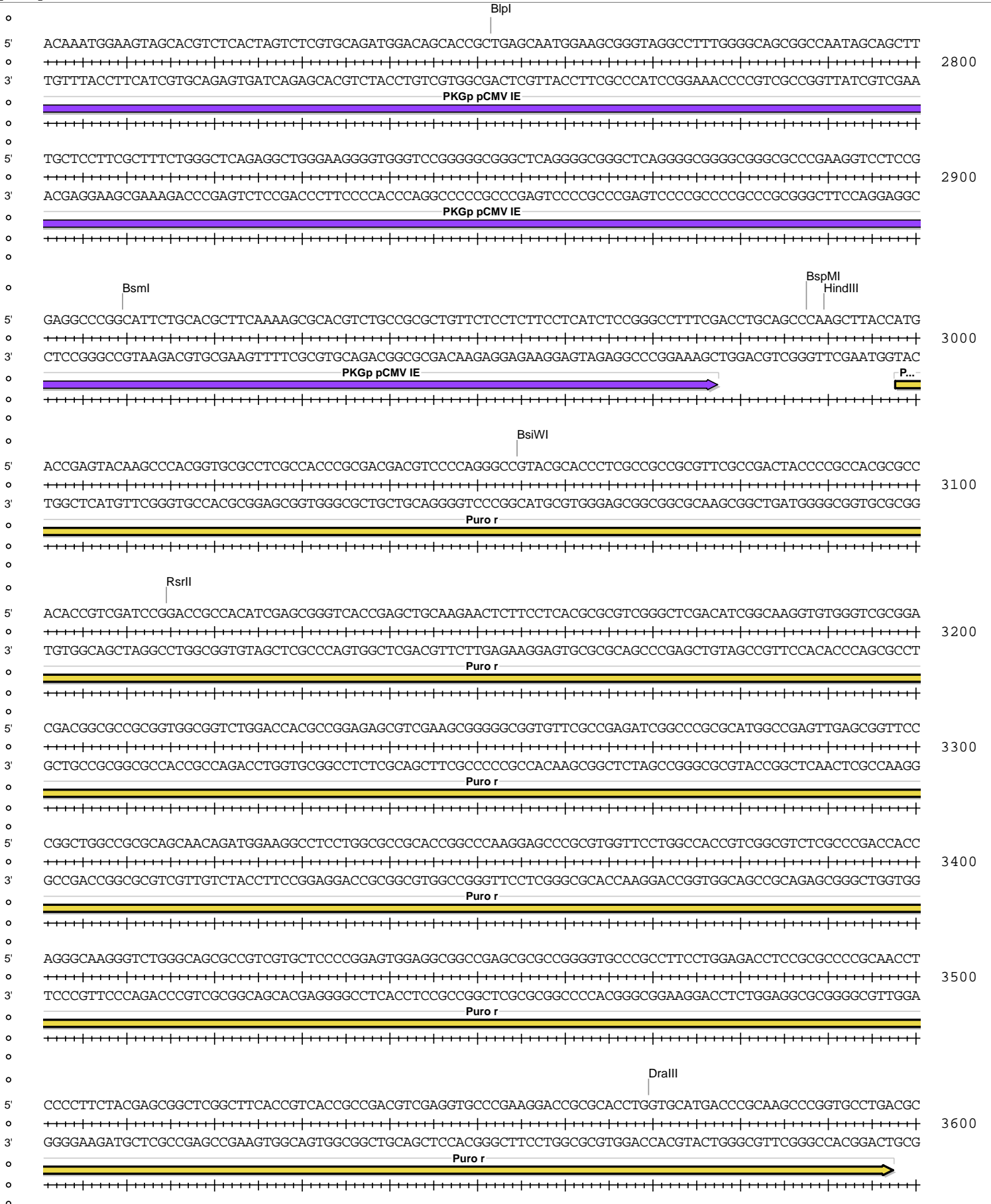
ArsI
 5' cgtgcctggccaccctcgtgaccaccctgacctacggcgtgacgtgcttccagccgtaccccgaccacatgaagcagcagacttcttcaagtcggcc
 1700
 3' gcacgggaccgggtgggagcactggtgggactggatgcccacgtcacgaagtggcgatggggctggtgtacttcgtcgtgctgaagaagttcaggcgg
 GFP

ArsI
 5' atgcccgaaggctacgtccaggagcgcaccatcttcttcaaggacgacggcaactacaagaccgcccggaggtgaagttcgagggcgacaccctggtga
 1800
 3' tacgggcttccgatgcaggtcctcgcgtggtagaagaagttcctgctgcccgtgatgttctgggcgcggtccacttcaagtcctccgctgtgggaccact
 GFP

5' accgcatcgagctgaaggcatcgacttcaaggaggacggcaacatcctggggcacaagctggagtacaactacaacagccacaacgtctatatcatggc
 1900
 3' tggcgtagctcgacttcccgtagctgaagttcctcctgcccgtttaggaccccgtgttcgacctcatgtgatgttgcggtgtgcagatatagtaccg
 GFP

pMSCVpuro-GFP miR-23a





NsiI
Clal

5' CCGCCCCACGACCCGCGAGCGCCCGACCGAAAGGAGCGCACACCCCATGCATCGATAAAAATAAAAGATTTTATTTAGTCTCCAGAAAAAGGGGGGAATGA 3700
+
3' GGCGGGGTGCTGGGCGTTCGCGGGCTGGCTTTCCCTCGCGTGCTGGGTACGTAGCTATTTTATTTCTAAAATAAATCAGAGGTCTTTTCCCCCTTACT
+

5' AAGACCCACCTGTAGGTTTGGCAAGCTAGCTTAAAGTAACGCCATTTTGC AAGGCATGGAAAATACATAACTGAGAATAGAGAAGTTCAGATCAAGGTTA 3800
+
3' TTCTGGGTGGACATCCAACCGTTCGATCGAATTTCATTCGCGTAAAACGTTCCGTACCTTTTATGTATTGACTCTTATCTCTTCAAGTCTAGTTCCAAT
+
3' pCMV LTR

5' GGAACAGAGAGACAGCAGAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCCTGCCCCGGCTCAGGGCCAAGAACAGATGGTCCCCAGATGCGGTC 3900
+
3' CCTTGTCTCTCTGTCGCTTATACCCGGTTTGTCTATAGACACCATTTCGTC AAGGACGGGGCCGAGTCCCGGTTCTTGTCTACCAGGGGTCTACGCCAG
+
3' pCMV LTR

5' CCGCCTCAGCAGTTTCTAGAGAACCATCAGATGTTTCCAGGGTGCCCCAAGGACCTGAAATGACCCCTGTGCCTTATTTGAACTAACCAATCAGTTCGCT 4000
+
3' GGCGGGAGTCGTCAAAGATCTCTTGGTAGTCTACA AAGTCCCACGGGGTTCCTGGACTTTACTGGGACACGGAATAAACTTGATTGGTTAGTCAAGCGA
+
3' pCMV LTR

5' TCTCGCTTCTGTTTCGCGCGCTTCTGCTCCCCGAGCTCAATAAAAGAGCCCAACCCCTCACTCGGCGCGCCAGTCTCCGATAGACTGCGTGC CCCGGG 4100
+
3' AGAGCGAAGACAAGCGCGAAGACGAGGGCTCGAGTTATTTTCTCGGGTGTGGGGAGTGAGCCGCGCGT CAGGAGCTATCTGACGCAGCGGGCCC
+
3' pCMV LTR

5' TACCCGTGTATCCAATAAACCTCTTGCAGTTGCATCCGACTTGTGGTCTCGCTGTTCTTGGGAGGGTCTCCTCTGAGTGATTGACTACCCGTCAGCGG 4200
+
3' ATGGCACATAGGTTATTTGGGAGAACGTCAACGTAGGCTGAACACCAGAGCGACAGGAACCCCTCCAGAGGAGACTACTA AACTGATGGCAGTCGCC
+
3' pCMV LTR

5' GGGTCTTTCATGGGTAACAGTTTCTTGAAGTTGGAGAACAACATTCAGGGTAGGAGTCGAATATTAAGTAATCCTGACTCAATTAGCCACTGTTTGA 4300
+
3' CCCGAAAAGTACCCATGTCAAAGA AACTTCAACCTCTTGTGTGAAGACTCCCATCTCAGCTTATAATTCATTAGGACTGAGTTAATCGGTGACAAA AACT
+
3' pCMV LTR

5' ATCCACATACTCCAATACTCCTGAAATAGTTTCATTTATGGACAGCGCAGAAGAGCTGGG GAGAATTAATTCGTAATCATGGTCATAGCTGTTTCCCTGTGTG 4400
+
3' TAGGTGTATGAGGTTATGAGGACTTTATCAAGTAATACCTGTTCGCGTCTTCTCGACCCCTCTTAATTAAGCATTAGTACCAGTATCGACAAAGGACACAC
+

5' AAATGTTATCCGCTCACAATTCACACAACATACGAGCCGGAAGCATAAAGTGTAAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCG 4500
+
3' TTTAACAATAGCGAGTGTAAAGGTGTGTGTATGCTCGGCCCTTCGTATTTACATTTTCGACCCACGGATTACTCACTCGATTGAGTGAATTAACGC
+

5' TTGCGCTCACTGCCCCTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGGGGAGAGCGGTTTGC GTATTGGGCGCT 4600
+
3' AACGCGAGTGACGGGCGAAAGGTCAGCCCTTTGGACAGCACGGTCGACGTAATTACTTAGCCGGTTGCGCGCCCTCTCCGCCAAACGCATAACCCGCGA
+

5' CTTCGCTTCCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCCGGTGC GGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGTTATCCACAGAATC 4700
+
3' GAAGCGAAGGAGCGAGTGACTGAGCGACGCGAGCCAGCAAGCCGACGCCGCTCGCCATAGTCGAGTGAGTTTCCGCCATTATGCCAATAGGTGCTCTAG
+

Pcl
 AflIII

5' AGGGGATAACGCAGGAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTTGCTGGCGTTTTTCCATAGGCTCCGCCCC
 3' TCCCTATTGCGTCCCTTTCTTTGACTACTCGTTTTCCGGTCGTTTTCCGGTCCTTGGCATTTTCCGGCGCAACGACCGCAAAAAGGTATCCGAGGGGGGG
 4800

5' CCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAGCTCCCTCGTGC
 3' GGACTGCTCGTAGTGTTTTTAGCTGCGAGTTCAGTCTCCACCGCTTTGGGCTGTCTGATATTTCTATGGTCCGCAAAGGGGGACTTCGAGGGAGCACG
 4900

5' GCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAG
 3' CGAGAGGACAAGGCTGGGACGGCGAATGGCCTATGGACAGGCGAAAGAGGAAGCCCTTCGCACCGCGAAAGAGTATCGAGTGCGACATCCATAGAGTC
 5000

5' TTCGGTGTAGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAAC
 3' AAGCCACATCCAGCAAGCGAGTTCGACCCGACACACGTGCTTGGGGGGCAAGTCGGGCTGGCGACGCGGAATAGGCCATTGATAGCAGAACTCAGGTTG
 5100

5' CCGGTAAGACAGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGC
 3' GGCCATTCTGTGTGTAATAGCGGTGACCGTCGTCGGTGACCATTGTCTTAATCGTCTCGCTCCATACATCCGCCACGATGTCTCAAGAACTTCACCACCG
 5200

5' CTAACACTACGGCTACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACA
 3' GATTGATGCCGATGTGATCTTCTGTCTATAAACCATAGACGCGAGACGACTTCGGTCAATGGAAGCCCTTTTCTCAACCATCGAGAACTAGGCCGTTTGT
 5300

5' AACCACCGCTGGTAGCGGTGGTTTTTTTGGTTTGC AAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCT
 3' TTGGTGGCGACCATCGCCACCAAAAAACAAACGTTCTGTCGTCTAATGCGCGTCTTTTTTCTCCTAGAGTTCTTCTAGGAAACTAGAAAAGATGCCCCAGA
 5400

5' GACGCTCAGTGAACGAAAACACGTTAAGGGATTTTGGTTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTAATAATGAAGTTTTA
 3' CTGCGAGTCACTTGTCTTTTGAGTGCAATTCCTAAAACAGTACTCTAATAGTTTTCCTAGAAAGTGGATCTAGGAAAATTTAATTTTTACTTCAAAT
 5500

5' AATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTCCGTTTATCCAT
 3' TTAGTTAGATTTATATATACTCATTTGAACCAGACTGTCAATGGTTACGAATTAGTCACTCCGTGGATAGAGTCGCTAGACAGATAAAGCAAGTAGGTA
 5600

Amp Res

5' AGTTGCCTGACTCCCCGCTGTGAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATAACCGGAGACCCACGCTCACCAGCT
 3' TCAACGGACTGAGGGGCAGCACATCTATTGATGCTATGCCCTCCCGAATGTTAGACCGGGGTACGACGTTACTATGGCGCTCTGGGTGCGAGTGGCCGA
 5700

Amp Res

5' CCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTTGTTGCCGGG
 3' GGTCTAAATAGTTCGTTATTTGGTCCGTCCGCTTCCCGCTCAGTCTTACCAGGACGTTGAAATAGGCGGAGGTAGGTCAGATAATTAACAACGGCCC
 5800

Amp Res

5' AAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCGCAACGTTGTTGCCATGCTACAGGCATCGTGGTGTACGCTCGTCTGTTGGTATGGCTTCATT
 3' TTCGATCTCATTCATCAAGCGGTCAATTATCAAACCGGTTGCAACAACGGAATACGATGTCCGTAGCACACAGTGCAGCAGCAAACCATACCGAAGTAA
 5900

Amp Res

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5' CAGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAAAAGCGTTAGCTCCTTCGGTCCCTCCGATCGTTGTCAGAAGTAAG
 6000
 3' GTTCGAGGCCAAGGGTTGCTAGTTCGGCTCAATGTACTAGGGGGTACAACACGTTTTTTTCGCCAATCGAGGAAGCCAGGAGGCTAGCAACAGTCTTCATTC
 Amp Res

5' TTGGCCGAGTGTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACTGTGTCATGCCATCCGTAAGATGCTTTTTCTGTGACTGGTGAAGTACTCAA
 6100
 3' AACCGGCGTCACAATAGTGAGTACCAATACCGTCGTGACGTATTAAGAGAATGACAGTACGGTAGGCATTCTACGAAAAGACACTGACCACTCATGAGTT
 Amp Res

5' CCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCTCCGCGTCAATACGGGATAATACCGGCCACATAGCAGAACTTTAAAAGTGCT
 6200
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 6300
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 6400
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 Amp Res

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 6500
 3' ATGAGAAGGAAAAAGTTATAATAACTTCGTAATAGTCCCAATAACAGAGTACTCGCTATGTATAAACTTACATAAATCTTTTTATTTGTTATCCCA
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5' TCCGCGCACATTTCCCGAAAAGTGCCACCTGACGTCTAAGAAACATTATATCATGACATTAACCTATAAAAATAGGCGTATCACGAGGCCCTTTCGT
 6600
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 6900
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 Amp Res

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 7000
 3' AATGCGGTCGACCGCTTTCCTTACACGACGTTCCGCTAATTCAACCCATTGCGGTCCCAAAGGGTCAGTGTGCAACATTTTGTGCGCGGTTCCCTT
 Amp Res

