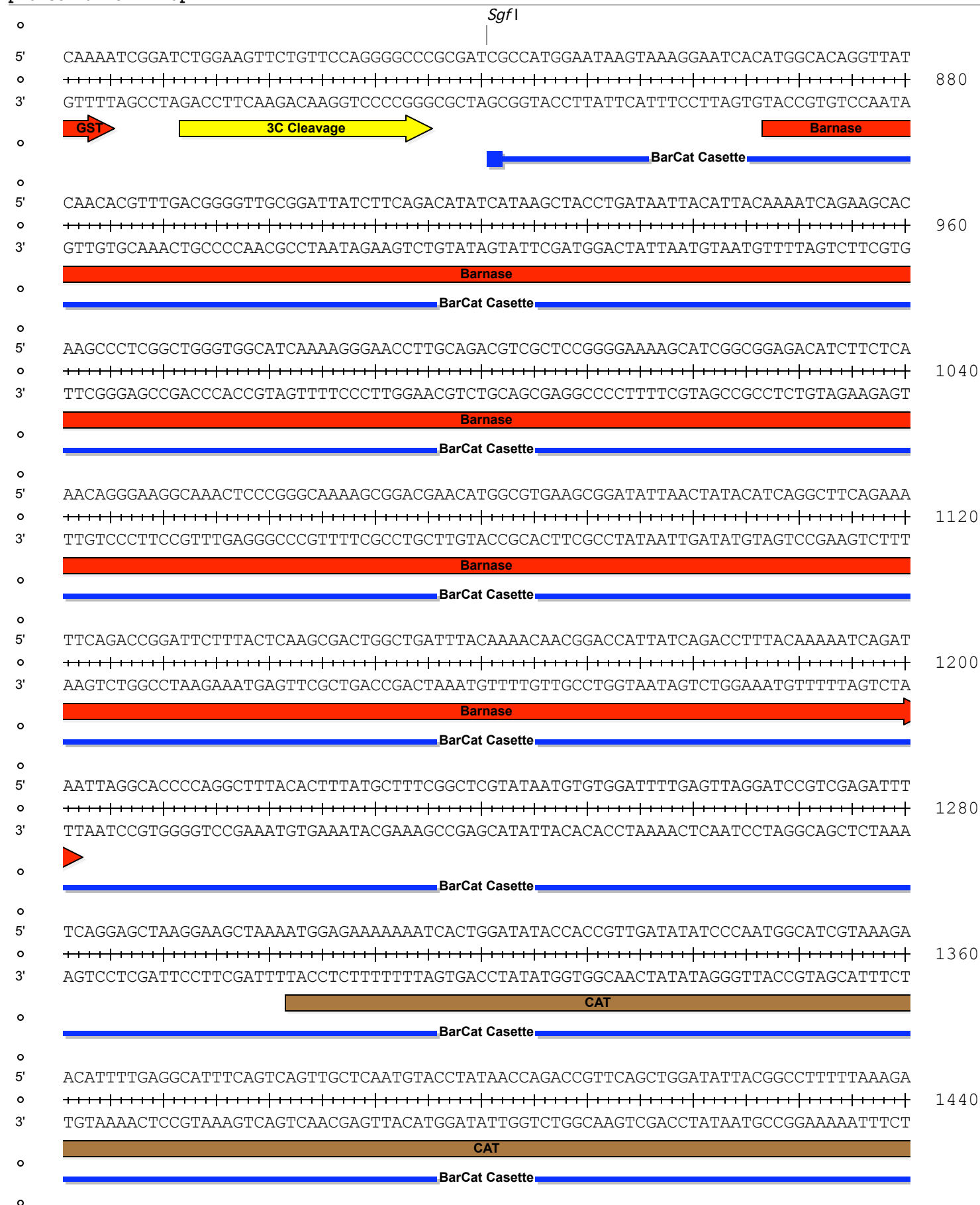
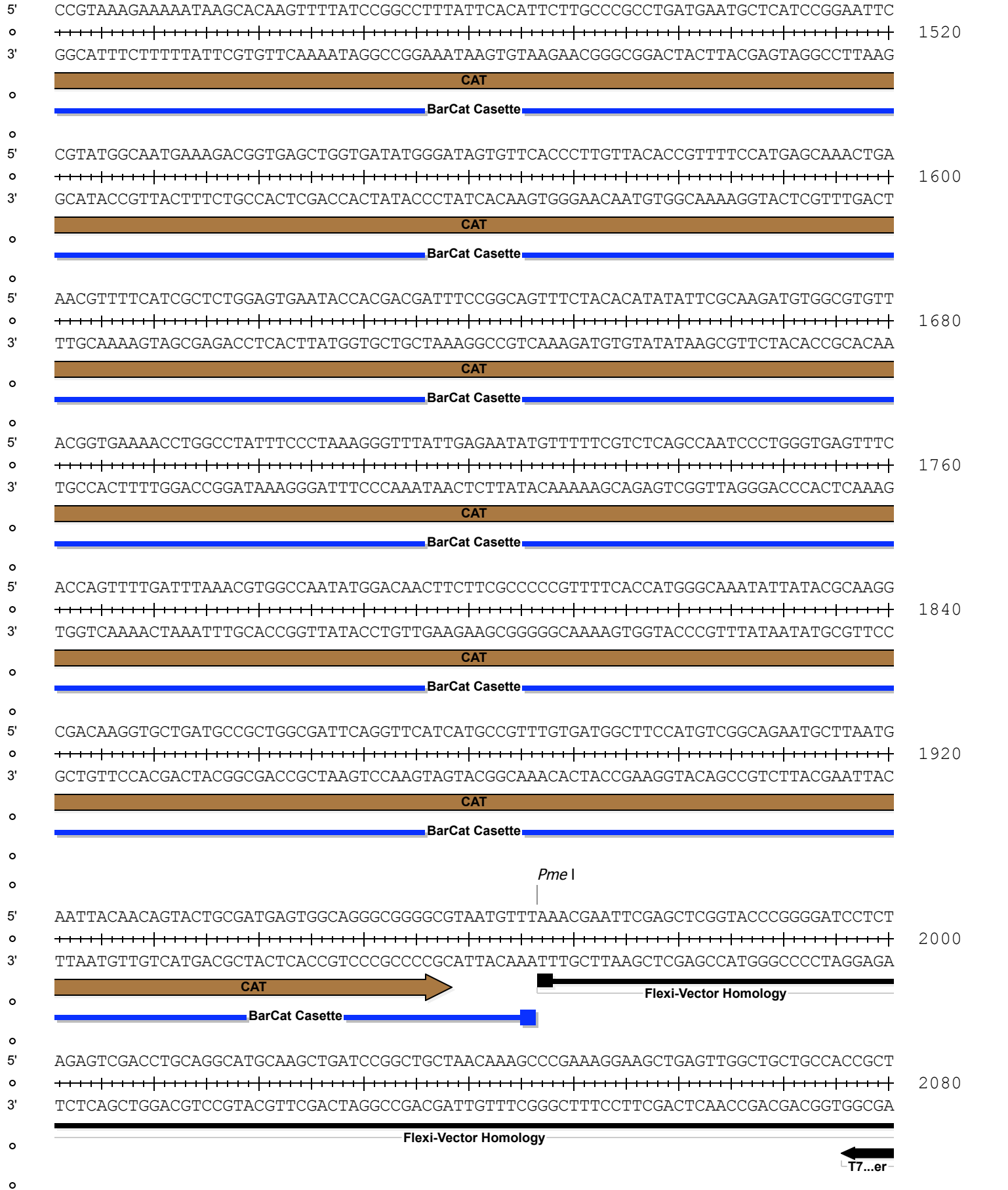


[illegible]



pEU-GSTBar-CAT4 Map



5' GAGCAATAACTAGCAAAC TAGTTTACGGCTAGCGCCGGATGCGACGCCGGTCGCGTCTTATCCGGCCTTCCTATATCAGG 2160
+
3' CTCGTTATTGATCGTTTGATCAAATGCCGATCGCGGCCTACGCTGCGGCCAGCGCAGAATAGGCCGGAAGGATATAGTCC
Flexi-Vec...Homology
T7 Term Primer

5' CTGTGTTTAAAGACGCCGCCGCTTCGCCCAAATCCTTATGCCGGTTCGACGGCTGGACAAAATACTGTTTATCTTCCCAGC 2240
+
3' GACACAAATTCGCGGCGGCGAAGCGGGTTTAGGAATACGGCCAAGCTGCCGACCTGTTTTATGACAAATAGAAGGGTCG
GCAGGCAGGTTAATGTACCACCCCAGCAGCAGCCGGTATCCAGCGCGTATATACCTTCCGGCGTACCTTTGCCCTCCAGC 2320
+
3' CGTCCGTCCAATTACATGGTGGGGTCGTCGTCGGCCATAGGTCGCGCATATATGGAAGGCCGCATGGAAACGGGAGGTCTG
GATGCCCAGTGACCAAAGGCGATGCTGTATTCTTCAGCGACAGGGCCAGGAATCGCAAACCACGGTTTCAGTGGGGCAGG 2400
+
3' CTACGGGTCACTGGTTTCCGCTACGACATAAGAAGTCGCTGTCCCGGTCTTAGCGTTTGGTGCCAAAGTCACCCCGTCC
Nsi I
5' GGCTCTTCCGGCGATTCTTACTAGCTAGTATGCATAGGTGCTGAAATATAAAGTTTGTGTTTCTAAAACACACGTGGTA 2480
+
3' CCGGAGAAGGCCGCTAAGAATGATCGATCATACGTATCCACGACTTTATATTTCAAACACAAAGATTTTGTGTGCACCAT
TMV-L
Bsi WI
5' CGTACGATAACGTACAGTGTTTTTCCCTCCACTTAAATCGAAGGGTAGTGCTTGGAGCGCGCGGAGTAAACATATATGG 2560
+
3' GCATGCTATTGCATGTACAAAAAGGGAGGTGAATTTAGCTTCCCATCACAGAACCTCGCGCGCCTCATTTGTATATACC
TMV-L
5' TTCATATATGTCCGTAGGCACGTAAAAAAGCGAGGGATTCTGAATTCCCCCGGAACCCCGGTTGGGGCCACGCCTCGA 2640
+
3' AAGTATATACAGGCATCCGTGCATTTTTTTTCGCTCCCTAAGCTTAAGGGGGCCTTGGGGGCCAACCCCGGTGCGGAGCT
TCGAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAGCTTGGCGTAATCATGGTCATAGCTGTTTCTGTGTGAAA 2720
+
3' AGCTCGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCGAACCGCATTAGTACCAGTATCGACAAAGGACACACTTT
TTGTTATCCGCTCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCT 2800
+
3' AACAATAGGCGAGTGTTAAGGTGTGTTGTATGCTCGGCTTCGTATTTACATTTTCGACCCACGATTACTCACTCGA
AACTCACATTAATTGCGTTGCGCTCACTGCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGC 2880
+
3' TTGAGTGTAATTAACGCAACGCGAGTGACGGGCGAAAGGTCAGCCCTTTGGACAGCACGGTCGACGTAATTACTTAGCCG
CAACGCGCGGGGAGAGGCGGTTTTCGCTATTGGGCGCTCTTCCGCTTCCCTCGCTCACTGACTCGCTGCGCTCGGTCTGTTCTG 2960
+
3' GTTGCGCGCCCCCTCTCCGCCAAACGCATAACCCGCGAGAAGGCGAAGGAGCGAGTGACTGAGCGACGCGAGCCAGCAAGC
GCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAAGAACA 3040
+
3' CGACGCCGCTCGCCATAGTCGAGTGAGTTTCCGCCATTATGCCAATAGGTGTCTTAGTCCCTATTGCGTCCTTTCTTGT

pEU-GSTBar-CAT4 Map



pEU-GSTBar-CAT4 Map

5'	TTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCGCAACGT	
o	+++++	4160
3'	AATAGGCGGAGGTAGGTCAGATAATTAACAACGGCCCTTCGATCTCATTCATCAAGCGGTCAATTATCAAACGCGTTGCA	
o	AMP Resistance	
o		
5'	TGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCTCAACGATCAA	
o	+++++	4240
3'	ACAACGGTAACGATGTCCGTAGCACCACAGTGCAGCAGCAAACCATACCGAAGTAAGTCGAGGCCAAGGGTTGCTAGTT	
o	AMP Resistance	
o		
5'	GGCGAGTTACATGATCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGTCCTCCGATCGTTGTGAGAAGTAAGTTG	
o	+++++	4320
3'	CCGCTCAATGTACTAGGGGGTACAACACGTTTTTTTCGCCAATCGAGGAAGCCAGGAGGCTAGCAACAGTCTTCATTCAAC	
o	AMP Resistance	
o		
5'	GCCGCAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTCTGT	
o	+++++	4400
3'	CGGCGTCACAATAGTGAGTACCAATACCGTCGTGACGTATTAAGAGAATGACAGTACGGTAGGCATTCTACGAAAAGACA	
o	AMP Resistance	
o		
5'	GACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGG	
o	+++++	4480
3'	CTGACCACTCATGAGTTGGTTCAGTAAGACTCTTATCACATACGCCGCTGGCTCAACGAGAACGGGCCGAGTTATGCC	
o	AMP Resistance	
o		
5'	ATAATACCGCGCCACATAGCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAACTCTCAAGGATC	
o	+++++	4560
3'	TATTATGGCGCGGTGTATCGTCTTGAAATTTTCACGAGTAGTAACCTTTTGCAAGAAGCCCCGCTTTTGAGAGTTCTTAG	
o	AMP Resistance	
o		
5'	TTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGACCCAACTGATCTTCAGCATCTTTTACTTTTACCAGCGT	
o	+++++	4640
3'	AATGGCGACAACCTCTAGGTCAAGCTACATTGGGTGAGCACGTGGGTTGACTAGAAGTCGTAGAAAATGAAAGTGGTCGCA	
o	AMP Resistance	
o		
5'	TTCTGGGTGAGCAAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATAC	
o	+++++	4720
3'	AAGACCCACTCGTTTTTGTCTTCCGTTTTACGGCGTTTTTTCCTTATTCCCGCTGTGCCTTTACAACCTTATGAGTATG	
o	AMP Resistance	
o		
5'	TCTTCTTTTTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAA	
o	+++++	4800
3'	AGAAGGAAAAAGTTATAATAACTTCGTAAATAGTCCCAATAACAGAGTACTCGCCTATGTATAAACTTACATAAATCTTT	
o		
5'	AATAAACAAATAGGGGTTCGCGCACATTTCCCCGAAAAGTGCCACCTGACGTCTAAGAAACCATTTATTATCATGACATT	
o	+++++	4880
3'	TTATTTGTTTATCCCCAAGGCGCGTGTAAGGGGCTTTTCACGGTGGACTGCAGATTCTTTGGTAATAATAGTACTGTAA	
o		
5'	AACCTATAAAAAATAGGCGTATCACGAGGCCCTTTCGTCTCGCGCGTTTCGGTGATGACGGTGAAAACCTCTGACACATGC	
o	+++++	4960
3'	TTGGATATTTTATCCGCATAGTGCTCCGGGAAAGCAGAGCGCGCAAAGCCACTACTGCCACTTTTGGAGACTGTGTACG	
o		

pEU-GSTBar-CAT4 Map

5'	AGCTCCCGGAGACGGTCACAGCTTGTCTGTAAGCGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTCAGCGGGTGTT	
o	+++++	5040
3'	TCGAGGGCCTCTGCCAGTGTGGAACAGACATTCGCCTACGGCCCTCGTCTGTTTCGGGCAGTCCCGCGCAGTCGCCCACAA	
o		
5'	GGCGGGTGTCGGGGCTGGCTTAACTATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATCGACGCTCTCCCTTA	
o	+++++	5120
3'	CCGCCCACAGCCCCGACCGAATTGATACGCCGTAGTCTCGTCTAACATGACTCTCACGTGGTATAGCTGCGAGAGGGAAT	
o		
5'	TGCGACTCCTGCATTAGGAAGCAGCCCAGTAGTAGGTTGAGGCCGTTGAGCACCGCCGCCGAAGGAATGGTGCATGCAA	
o	+++++	5200
3'	ACGCTGAGGACGTAATCCTTCGTCGGGTCATCATCCAACCTCCGGCAACTCGTGGCGGGCGGCTTCCTTACCACGTACGTT	
o		
5'	GGAGATGGCGCCCAACAGTCCCCCGGCCACGGGGCCTGCCACCATAACCCACGCCGAAACAAGCGCTCATGAGCCCGAAGT	
o	+++++	5280
3'	CCTCTACCGCGGGTTGTCAGGGGGCCGGTGCCCCGGACGGTGGTATGGGTGCGGCTTTGTTTCGCGAGTACTCGGGCTTCA	
o		
5'	GGCGAGCCCGATCTTCCCCATCGGTGATGTGCGCGATATAGGCGCCAGCAACCGCACCTGTGGCGCCGGTGATGCCGGCC	
o	+++++	5360
3'	CCGCTCGGGCTAGAAGGGGTAGCCACTACAGCCGCTATATCCGCGGTGCTTGGCGTGACACCGCGGCCACTACGGCCGG	
o		
5'	ACGATGCGTCCGGCGTAGAGGATCTGGCTAGCGATGACCCTGCTGATTGGTTTCGCTGACCATTTCCGGGGTGCGGAACGG	
o	+++++	5440
3'	TGCTACGCAGGCCGCATCTCCTAGACCGATCGCTACTGGGACGACTAACCAAGCGACTGGTAAAGGCCCCACGCCTTGCC	
o		
5'	CGTTACCAGAAACTCAGAAGGTTTCGTCCAACCAAACCGACTCTGACGGCAGTTTACGAGAGAGATGATAGGGTCTGCTTC	
o	+++++	5520
3'	GCAATGGTCTTTGAGTCTTCCAAGCAGGTTGGTTTGGCTGAGACTGCCGTCAAATGCTCTCTCTACTATCCCAGACGAAG	
o		
5'	AGTAAGCCAGATGCTACACAATTAGGCTTGTACATATTGTCGTTAGAACGCGGCTACAATTAATACATAACCTTATGTAT	
o	+++++	5600
3'	TCATTCCGGTCTACGATGTGTTAATCCGAACATGTATAACAGCAATCTTGCGCCGATGTTAATTATGTATTGGAATACATA	
o		
5'	CATACACATACG	
o	+++++	5612
3'	GTATGTGTATGC	
o		