

This is a modified pSI103 prepared by Jennifer Moy and Matthew LaVoie at the University of Minnesota in the Silflow lab. A PstI - KpnI fragment of 1.82 kb from pSI103 was inserted into pBluescript KS+. The purpose was to remove an inverted repeat sequence.

Landmarks in pSI103-1:

HSP70A promoter 707 - 981

RBCS2 promoter and 5' UTR 999 - 1221

RBCS2 intron 1224 - 1368

aphVIII gene open reading frame 1411 - 2214

RBCS2 3' UTR 2289 - 2521

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> pSI103-1, 4725 bp
CACCTAAATTGTAAGCGTTAATATTTTGTAAAAATTCGCGTTAAATTTTTGTTAAATCAG
CTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAGAATAGAC
CGAGATAGGGTTGAGTGTGTTCCAGTTTGGAAACAAGAGTCCACTATTAAGAACGTGGA
CTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATC
ACCCTAATCAAGTTTTTTGGGGTTCGAGGTGCCGTAAGCACATAATCGGAACCCATAAGG
GAGCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAA
GAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTACAGCTGCGCGTAAC
CACCACACCCGCCGCGCTTAATGCGCCGCTACAGGGCGCGTCCCATTGCCATTCAGGCT
GCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAA
AGGGGGATGTGCTGCAAGGGGATTAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACG
TTGTA AACGACGGCCAGTGAATTGTAATACGACTCACTATAGGGCGAATTGGAGCTCCA
CCGCGGTGGCGGCCGCTCTAGA ACTAGTGGATCCCCGGGCTGCAGGACGGCGGGGAGCT
CGTGAGGCTTGACATGATTGGTGCATGTTTGTATGAAGCTACAGGACTGATTTGGCG
GGCTATGAGGGCGGGGAAGCTCTGGAAGGGCCGCGATGGGGCGCGCGCGTCCAGAAGG
CGCCATACGGCCCGCTGGCGGCACCCATCCGGTATAAAAGCCCGCGACCCCGAACGGTGA
CCTCCACTTTCAGCGACAAACGAGCACTTATACATACGCGACTATTCTGCCGCTATACAT
AACC ACTCAGCTAGCTTAAGATCCCATCAAGCTTGCATGCGGGCGCGCCAGAAGGAGCG
CAGCCAAACCAGGATGATGTTTGTATGGGGTATTTGAGCACTTGCAACCCTTATCCGGAAG
CCCCCTGGCCACAAAGGCTAGGCGCCAATGCAAGCAGTTTCGATCGACCCCCCTGGAGCG
GTGCCCTCCTGATAAACCGGCCAGGGGGCCTATGTTCTTTACTTTTTTACAAGAGAAGTC
ACTCAACATCTTAAATGGCCAGGTGAGTGCACGAGCAAGCCCGCGGATCAGGCAGCGT
GCTTGAGATTTGACTTGCAACGCCCGCATTTGTGTCGACGAAGGCTTTTGGCTCCTCTGT
CGCTGTCTCAAGCAGCATCTAACCCGCGTTCGCGGTTTTCCATTGCGAGGATGGCCACTCC
GCCCTCCCCGGTGTGTAAGAATTTGGAAGCATGGACGATGCGTTGCGTGCCTGCGGGGT
CGGTATCCCCGTTGTGAGTGGGTGTTGTGTCGAGGATGGGGCCTCGGGGGCTGGTGTATTAT
CGGCTTCGGGGTGGTGGGCGGGAGTTGTTTGTCAAGGTGGCAGCTCTGGGGGCCGGGGT
GGCTTGTGGGTGAGGCTGAGCGGCTGGTGTGGTTGGCGAGGTGGGGATTCCCGTACCT
CGTGTGTGGAGGGTGGTGGGGACGAGAGGGTGCCTGGTTGGTCAACGAAGCGGTTCCG

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P Bluescript KS+
Pst I 707
pBluescript KS+
HSP70A promoter 707-981
RBCS2 promoter & 5' UTR 999-1221
RBCS2 intron 1224-1368
aphVIII gene open reading frame 1411-2214

GGGCGTCCGGCCAGTGC GCGGTGGCCGCGGGAGCAGCGGCTGGACGTGGCGGTGGCGCTC
GCGGGGCTCGCTCGTTCGCTGCACGCGCTGGACTGGGAGCGGTGTCCGTTTCGATCGCAGT
CTCGCGGTGACGGTGCCGAGGCGGCCCGTGCTGTGCTGAAGGGAGCGTCTGACTTGGAG
GATCTGGACGAGGAGCGGAAGGGTGGTGGGGGAGCGGCTTCTCGCCGAGCTGGAGCGG
ACTCGGCCTGCGGACGAGGATCTGGCGGTTTGCACGGTCACCTGTGCCCGGACAACGTG
CTGCTCGACCCTCGTACCTGCGAGGTGACCGGGCTGATCGACGTGGGGCGGGTGGCCGT
GCGGACCGGCACTCCGATCTCGCGTGGTGTGCGGAGCTGGCCACGAGGAGGACCCG
TGGTTCGGGCGGAGTGTTCGCGGCGTTCCTGCGGGAGTACGGGCGCGGGTGGGATGGG
GCGGTATCGGAGAAAAGCTGGCGTTCCTACCGGCTGTTGGACGAGTTCCTTCGAGGGACC
TGATGGTGTGGTGGCTGGGTAGGGTTGCGTTCGCGTGGGTGACAGCACAGTGTGGACGTT
GGGATCCCGCTCCGTGTAATGGAGGCGCTCGTTGATCTGAGCCTTGCCCCCTGACGAA
CGGCGGTGGATGGAAGATACTGCTCTCAAGTGTGAAGCGGTAGCTTAGCTCCCCGTTTC
GTGCTGATCAGTCTTTTTCAACACGTAAAAAGCGGAGGAGTTTTGCAATTTTGTGGTTC
TAACGATCCTCCGTTGATTTTTGGCCTCTTCTCCATGGGCGGGCTGGGCGTATTTGAAGC
GGGTACCCAGCTTTTGTTCCTTTAGTGAGGGTTAATTTTCGAGCTTGGCGTAATCATGGT
CATAGCTGTTTCCGTGTGTAATTTGTTATCCGCTCACAAATCCACACAACATACGAGCCG
GAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGT
TGCGCTCACTGCCCCGCTTTCCAGTCGGGAAACCTGTGCTGCCAGCTGCATTAATGAATCG
GCCAACGCGCGGGGAGAGGCGGTTTGCCTATTGGGCGCTCTTCCGCTTCTCGCTCACTG
ACTCGCTGCGCTCGGTCGTTCCGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAA
TACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAATGTGAGCAAAAGGCCAGC
AAAAGGCCAGGAACCGTAAAAAGGCCGCGTGTGCTGGCGTTTTTCCATAGGCTCCGCCCC
CTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTAT
AAAGATAACCAGGCGTTTCCCCCTGGAAGTCCCTCGTGCCTCTCCTGTTCCGACCCCTGC
CGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCT
CACGCTGTAGGTATCTCAGTTCCGCTGAGGTGCTCGCTCCAAGCTGGGCTGTGTGCAG
AACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC
CGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGA
GGTATGTAGGCGGTGTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAA
GGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTA
GCTCTTGATCCGGCAACAAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGC
AGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCCTTTGATCTTTTCTACGGGTCTG
ACGCTCAGTGAACGAAAATCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGA
TCTTCACCTAGATCCTTTTAAATTAATAAATGAAGTTTTAAATCAATCTAAAGTATATATG
AGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCT
GTCTATTTGTTTATCCATAGTTGCGCTGACTCCCCGTCGTGTAGATAACTACGATACGGG
AGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAGACCCACGCTCACCGGCTC
CAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCTTGCAA
CTTTATCCGCTCCATCCAGTCTATTAATTTGTTGCGGGAAGCTAGAGTAAGTAGTTGCG
CAGTTAATAGTTTTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGT
CGTTTGGTATGGCTTCATTCAGCTCCGGTTCCTAACGATCAAGGCGAGTTACATGATCCC

aph VIII gene open reading frame
1411-2214

RBC32 3' UTR 2289-2521

2521

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p Bluescript KS+

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CCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGTCAGAAGTAAGT
TGGCCGCAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTTACTGTCATGC
CATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGT
GTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATA
GCAGAACTTTAAAAGTGCTCATCATTTGAAAAACGTTCTTCGGGGCGAAAACCTCAAGGA
TCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACCTGATCTTCAG
CATCTTTACTTTACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAA
AAAAGGGAATAAGGGCGACACGAAATGTTGAATACTCATACTCTTCCTTTTCAATATT
ATTGAAGCATTATCAGGGTTATGTCTCATGAGCGGATACATATTTGAATGTATTTAGA
AAAATAAACAAATAGGGGTCCGCGCACATTTCCCCGAAAAGTGC

Bluescript KS+