

AY192541.1
AY974173.1
AB560838.1

123456789 123456789 12
AAGGATCATTGTCTGAGATACTA
AAGGATCATTGTCTGAGATACGA
AGAATCATTGTCTGAGATACGA
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S VV

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123456789 123456789 123456789 123456789 123456789 123456789
AY1 AATGTGGTTCGGAAGACTGTGAACTCGTGAACGAAATCATGATTATGGTGAGGGTTTCGT
AY9 AATGTGGTTCGGAAGACTGTGAACTCGTGAACGAAAATAATCGATTTTTGGTGAGGGTTTCGT
AB5 AATGTGGTTCGGAAGACTGTGAACTYKGTGAACGAAATAATCGATTTTTGGTGAGGGTTTCGT

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123456789 123456789 123456789 123456789 123456789 123456789
AY1 CCCGAAGCCAA-GCCCTACAACCCTTGAGTCGAAAGCGAGCCATAGGCCTGGCAACGACG
AY9 CCCGAAGCCAAATGCCCTCTGC--CCCTTGAGTCGAAAGCGGGCCATAGGCCTGGCGCGACG
AB5 CCCGAAGCCAAATGCCCTCTGC--CCCTTGAGTCGAAAGTGGGTATAGGCCTGGCGCGATG

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123456789 123456789 123456789 123456789 123456789 123456789
AY1 CAATGTCTGGGT--GGGGCGCTAACAAAACTCGGCGCAAACAGCGTCAAGGAACGAGTATG
AY9 CAAGTATGGGTAAAGGGGCGCTAACAAAACCCGGCGCAGCACGCGTCAAGGAACGAGTACG
AB5 TAAGTATGGGTAAAGGGGCGCTAACAAAACCCGGCGCAGCACGCGTCAAGGAACGAGTACG
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S V S ii S S V S

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123456789 123456789 123456789 123456789 123456789 123456789
AY1 TGAATGTCACCAATGTCATTAGCGGATGTAAGTGGTCTATGTTTCTCAGAGTAAT TTT
AY9 TGAACGCGGCCCCACTGTCTATTGGCTGATGCAGTGGTCTCTATGTTTCTCAGAGTAAT TTT
AB5 TGAATGCGGCCCCACTGTCTATTGGCTGATGCAGTGGTCTCTATGTTTCTCAAGTAAT TTT
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123456789 123456789 123456789 123456789 123456789 123456789
AY1 TGACTCTCGGCAACGGATATCTTGGATCCCCGTATCGATGAAGAACGTAGCGAAATGCGAT
AY9 TGACTCTCGGCAACGGATATCTTGGCTCCCCTATCGATGAAGAACGTAGCGAAATGCGAT
AB5 TGACTCTCGGCAAYKKATATCTTGGCTCCCCGTATCGATGAAGAACGTAGCGAAATGCGAT

VVV VV

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123456789 123456789 123456789 123456789 123456789 123456789
AY1 ACTTGATGTGAATTGCAGAATCCCGTGAATCATCGAGTCTTTGAACGCAAGTTGCGCCCG
AY9 ACTTGATGTGAATTGCAGAATCCCGTGAATCATCGAGTTTTTTGAACGCAAGTTGCGCCCG
AB5 ACTTGATGTGAATTGCAGAATCCCGTGAATCATCGAGTTTTTTGAACGCAAGTTGTTGCCCG

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1 2 3 4 5 6
123456789 123456789 123456789 123456789 123456789 123456789
AY1 ATGTCATTTCGGCAAGGGCAGCCTGCTGGGGCGTCACGCTTGCGCTCGCTCGGTGCCAA
AY9 ATGCCATTTCGGCTGAGGGCAGCCTGCTGGGGCGTCACGCTTGCGCTCGCTCGGTGCCAA
AB5 ATGCCATTTCGACTGATGGCAGCCTGCTGGGGCGTCACGCTTGCGCTCGCTCTAGTGCCAA
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      1           2           3           4           5           6
123456789 123456789 123456789 123456789 123456789 123456789
AY1 CTACGCCTGTGGGTCGAAAGTG-TTGGCACGGATGTTGGAGATTGGCCTCCCGTG-TCCCTT
AY9 TTGCGCTCGTGGGTCGAAAGTG-TTGGCACGGATGCGGAGATTGGCCTCCCGTGCCCCCTT 9
AB5 TTACGCTCGTGGGTCGAAAGTGTTTGGTTCGGATGCGGAGATTGGCCTCCCTGTGCCCCCTT
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      1           2           3           4           5           6
123456789 123456789 123456789 123456789 123456789 123456789
AY1 GTGCGCGCGGTAGGTTGAAGAGTGGGATGCCATGGAGACGGACACGGCGAGTGGTGGAT
AY9 GTGCGCGCGGTGGGTTGAAGAGTGGGATGCCGACGGAGACGGACACGGCGAGTGGTGGAT 10
AB5 GTGCGCGCGGTGGGTTGAAGAGTGGGATGCTGACGGAGACGGACACGGCGAGTGGTGGAT
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      1           2           3           4           5           6
123456789 123456789 123456789 123456789 123456789 123456789
AY1 ACGAGCCGGACGTCGTGGTCTCGACCTCTAAAGGCTCGGGGGCCCTTGACACCCAGT
AY9 GCGAGCCGGACGTCGTGGTCTCGTCCTCTAAAGGCTCGGAGGGCCCTTGGGACACCCAGT 11
AB5 GCGAGCCGGACGTCGTGGTCTCGTCCTCTAAAGGCTCGGAGGGCCCTTGGGACMCCAGT
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      1           2           3           4
123456789 123456789 123456789 123456789
AY1 ATGGTTGCGTTGTACGCGTTGCCTAGCATTGCGACCCAG
AY9 AGGGTTGCGCTGAACGCGTTGCCTAGCATTGCGACCCAG 12
AB5 AGGGTTGCGCTGAACGCGTTGCCTACATTGCGACCCAG
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Genome Segments			
	Spacer 1:R1-R6		
	AY1	AY9	AB5
AY1	~	4	9
AY9	29	~	8
AB5	28	2	~
Total	29	4	10
	5.8 Gene: R6-R8		
	AY1	AY9	AB5
AY1	~	0	9
AY9	7	~	9
AB5	7	0	~
Total:	7	0	9
	Spacer 2:R8-R12		
	AY1	AY9	AB5
AY1	~	1	6
AY9	16	~	6
AB5	17	2	~
Total:	17	2	9