

	1		130
is7c-2.txt	GACTGAAGGTTT	GCGTCCCCTTCGTCTAGTGGCTTAGGACACCGCCCTTTACGGCGCGTAAACAGGGGTT	CGAGTCCCCTAGGGGACGCGCACGATTTCCCGCTCTGCGGGACCAAGGGTCATTCT
is7c-3.txt	TTCAAGCGTAGGGGT	GCCAGACATGCGTTT	TGATCTCCATTGTTATTGTATTGAGACGTGGTTCGCTTGTGGATAAGATAAGACGTCTGACAAACGGTCTGGAGATTCAAATGTAAC
CI-is7c-5.	ACAGCAGCGAGT	GCTGGTTCATGACCGACGCGCAGAAATCAAACTGCCAACGCTGCCTGCCCTTCAACTGCGCAAGCCTGCTGATCGACATCGAAAAAGGCCGATCCGCTTGGGAAGGGCTC	
CI-is7c-6.	TGGAATTCCGGTAA	AACCATGCAACACCTGCGCGAAGTGCCCTTGGA-ACAAACACCCCTGAAACGCACCATGGCGCTCACCTGCGCAAGGGCGGCTACCTGTGCGCCGCGCAGAGGCATGTTGCAAA	
CI-is7c-8.	AACCAGCATC	ACGCTTACCTGAGCGAAAAATCAGCACAATTCGACCCACACCCGCCACGCCCTCGACAGTCT-----TGGCGGCGCCAGCCCAAGGCCCTACGCGCAACTGGAGCGCAC	
CI-is7c-9.	TTCATCGCCTCGAT	CATCGGCGTCATGTGCTGGCCGTGGGTGCGGTGCT--GTGCGGCGTGGTCAAGGCTGCGCTGCTGTGTCGGAACCTTCCCGACCCGACCCGCTACACCGCCTCGGCGATC	
Consensus	a.c.at....g.ct....c...tGc.c.tg....Cc...c.....g....g...c..CgG...c.....t..gg..cg.C..c....c.cgC.C.....a.....a.c		
	131		260
is7c-2.txt	GATTATTGAATGGCCCTTTT	GTTTTTCCGGGTTTGAAACCCCTTCTTTCTGATTCTTATCTCT-----TCATACATAAACCTGACTAAAGCCTCGTGA	CTAAGTCTCGTGCCAGTGCGTTTGCACGCAT
is7c-3.txt	GTGTGTAAAGCGTTTTT	ACGGATCGGGTGAGGTGTTGGCGTCCGTTGTTATTGCACAATGATTACCCGACTGATTTTCGTCCCAATGCACGCCTAGGCACGCGT	TGGGTGGCGCTCTGCGTCACACACGT
CI-is7c-5.	GGGAGCTG	GCTGC-----AAGCCTGGTGCTGATTACCGGCATATTGATGAGCTGAAGCTGGGTTGAAGGGGGTTTTTCACTGTGCTGGCCATGTGTTGGCAT	TTACCCCGTGACACTATGCGCGCAG
CI-is7c-6.	TGCTGCGCGACAAC	GGCGGGGACTTTCTGGCGTGGGGTGAGCATGCGCTTGCCAGCATCCGTTCGGCGATGCGTGTGACTCTCATATCAATGCTTGGCTTGCA	TCCAGTTCGTGACGCT-----
CI-is7c-8.	CTCAACGCCCCAGGC	CTACATGATGTCACGGTGACTACTTCTACCTGCTGGGTGGATATTCGCGGGCCTGATCCTGCTGGTCTGGCTGGCCAAACCC	CCATTCGGCGCGAAGGC
CI-is7c-9.	ACCTACAACATGGC	CTACACCTGTTTCGCGCGCACCCGCACCGCTGATGGCAACCTGGCTGATCAGCGTCACCGGCAGCAACCTGTCGCCAGCGT	TCTACCTGATTCGGCTAGCCGTGCTAGCAATGGCAG
Consensus	...t.c...a.ggc.....gat.ttc.G.G.tg.....C.t.....t..Tc....g.....t.....tc.c....c..Gcct.g...c...tt.....c.c.....c..		
	261		390
is7c-2.txt	CAGGTGGCACCCCTCAT	CGCATCTACGCCGAGCAGCAGCGTCATGCCTTGCCGGTAATCACTGCACATAAACGAAAGCGCTTTTTT	CATCGCGATATCACTGACGACGCAAGTGCAGCTAAGTGACGGC
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CI-is7c-5.	GCGCACGATAGTTGTATCTTT	GCCGACGCGCAGCACAACCGTCATGCCTTGCCCGCAGTCACCTGCCTATAAACAAAGCGCTTTTTT	TACCGCGATGGCACTGACGACGCAAGTGCAGCTAAGTGACGGC
CI-is7c-6.	---CCGCGTCAACGCGTCA	GATTCTTGCTACAGCGCAACGTCATGCCTTATCCGGAATCACTGCACATAAACAAAGCGCTTTTTT	TATCGCAATGGCACTGACGACGCAAGTGCAGCTAAGTGACGGC
CI-is7c-8.	GGGGCGGGCATTGAGAAGG	TTTCTCTGTGCCAATGGGGTCGTCATGC--AGTTGTGACTGCTTAACTGCTTTAGATCTGCTTTT	CGATCAGATGGCACTGACGACGCAAGTGCAGCTAAGTGACGGC
CI-is7c-9.	CGGGCTGGCATTGCCCCGAG	ACCTCGGAAGATCTCGTGCATGACGTGCGGCTTGGGCAAGGGGCACTGACGGGTCAGTGGCGTGA	GGCTCTCGGGGTACGCTTTCGCTCAAAATATGCTGCTGCAGC
Consensus	g.G.cg.....t.....g..c...g...ca.C.c.aCgtCATGC...G...g.a.TCactg.a.a.....aaAagcGCTTTTt.AtCgCGATggCACTGACGACGCaGAGTGCAGcTAAGTGACGGC		
	391		520
is7c-2.txt	TGAGCCCTGACACTGATCCGGGGG	TAGCTCGGCA--GGACGCCGAGCTAGCCGCACCGTGCCAGGGATGGCAGTTGCGGCGACCCCGGATCAGTGT	CAGGGCGAAGGAACCCGACGAAGTCGGGCCGGA
is7c-3.txt	TGAGCCCTGACACTGATCCGGGGG	GATGCGAGGCA--GGACGCCGAGCAAGCTGCACCGGGCCAAAGGATGGCCCGTTGCA	GCGACCCCGGATCAGTGT
CI-is7c-5.	TGAGTCCCTGCGCTGATCCGGGGG	GATGCGAGGCA--GGACGCCGAGCAAGCCGCACCGGGCCAAAGGATGGCCCGTTGCGGCGACCCCGGATCAGCGT	CAGGGCGAAGGAACCCGACGAAGTCGGGCCGGA
CI-is7c-6.	TGAGCCCTGGCGCTGATCCGGGGG	GATGCGAGGCA--GGACGCCGAGCAAGCTGCACCGGGCCAAAGGATGGCCCGTTGCA	GCGACCCCGGATCAGTGT
CI-is7c-8.	TGAGCCCTGACACTGATCCGGGGG	GAACTCGGCAAGGATGCCGAGTTAGCTGCACCGGGCCAAAGGATGGCCCGTTGCA	GCGACCCCGGATCAGTGT
CI-is7c-9.	ACAACGCCATACCTTGCCCGT	TAGCCACTGCACATAAACGAAAGCTTTTTT	CATCACGGTGGCACTGACGACGCA-----GAGTGCAGCGTCAGTGT
Consensus	TGAGCCCTG.C.CTGATCCGGGGG..gCg.GGCA.GGAcGCCGAGc.AGC.GCACCGgGCCAAAGGATGGCCCGTTGC.GCGACC	CCGGATCAGTGT	CAGGGCGAAGGAACCCGACGAAGTCGGGCCGGA
	521		650
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is7c-3.txt	AACGGAGCTGGGA--TAATGAGATGGT	CAGCCCCGATCCGAGAAACCCGGAGTGTCTACACTTTCCGGGTTTCTCTCTAACGTCGAGGAGATCACTCATGAAAAACGGCCTCAAGCTCTT	TAGGCATCGACA
CI-is7c-5.	AACGGAGCTGCGGGCTAATGAGATGGT	CAGCCCCGATCCGAGAAACCCGGAGTGTCTACACTTTCCGGGTTTCTCTCTAACGTCGAGGAGATCACTCATGAAAAACGGCCTCAAGCTCTT	TAGGCATCGACA
CI-is7c-6.	AACGGAGCTGCGGGCTAATGAGATGGT	CAGCCCCGATCCGAGAAACCCGGAGTGTCTACACTTTCCGGGTTTCTCTCTAACGTCGAGGAGATCACTCATGAAAAACGGCCTCAAGCTCTT	TAGGCATCGACA
CI-is7c-8.	AACGGAGCCAGGG--TAATGAGATGGT	CAGCCCCGATCCGAGAAACCCGGAGTGTCTACACTTTCCGGGTTTCTCTCTAACGTCGAGGAGATCACTCATGAAAAACGGCCTCAAGCTCTT	TAGGCATCGACA
CI-is7c-9.	AACGGAGCGGTGA--TAATGAGATGGT	CAGCCCCGATCCGAGAAACCCGGAGTGTCTACACTTTCCGGGTTTCTCTCTAACGTCGAGGAGATCACTCATGAAAAACGGCCTCAAGCTCTT	TAGGCATCGACA
Consensus	AACGGAGcTg.G...TAATGAGATGGT	CAGCCCCGATCCGAGAAACCCGGAGTGTCTACACTTTCCGGGTTTCTCTCTAACGTCGAGGAGATCACTCATGAAAAACGGCCTCAAGCTCTT	TAGGCATCGACA

	651	780
is7c-2.txt	TTGGTAAAAACAGTTTTACCTCATAGGCCATGATGCAGGCGGCCACCAAGTATTACGCAAGTGCTTCAATCGCAATCGCCTTCTGCAGTTTGGGGCTCAGATTGAACCCTGCACCATTGCAATGGAGTC	
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CI-is7c-5.	TTGGTAAAAACAGTTTTACCTCATAGGCCATGATGCAGGCGGCCACCAAGTATTACGCAAGTGCTTCAATCGCAATCGCCTTCTGCAGTTTGGGGCTCAGATTGAACCCTGCACCATTGCAATGGAGTC	
CI-is7c-6.	TTGGTAAAAACAGTTTTACCTCATAGGCCATGATGCAGGCGGCCACCAAGTATTACGCAAGTGCTTCAATCGCAATCGCCTTCTGCAGTTTGGGGCTCAGATTGAACCCTGCACCATTGCAATGGAGTC	
CI-is7c-8.	TTGGTAAAAACAGTTTTACCTCATAGGCCATGATGCAGGCGGCCACCAAGTATTACGCAAGTGCTTCAATCGCAATCGCCTTCTGCAGTTTGGGGCTCAGATTGAACCCTGCACCATTGCAATGGAGTC	
CI-is7c-9.	TTGGTAAAAACAGTTTTACCTCATAGGCCATGATGCAGGCGGCCACCAAGTATTACGCAAGTGCTTCAATCGCAATCGCCTTCTGCAGTTTGGGGCTCAGATTGAACCCTGCACCATTGCAATGGAGTC	
Consensus	TTGGTAAAAACAGTTTTACCTCATAGGCCATGATGCAGGCGGCCACCAAGTATTACGCAAGTGCTTCAATCGCAATCGCCTTCTGCAGTTTGGGGCTCAGATTGAACCCTGCACCATTGCAATGGAGTC	
	781	910
is7c-2.txt	GTGCGGTGGCTCTCACTGGCTTGCCAGGAAACTCGCCTCGCTGGGGCACCGGGTGAAGTTGATTGCTCCGCAACATGTGAAGCCCTACGTGACGGGCAACAAGAATGACTTCATCGATGCCGAAGCTATA	
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CI-is7c-5.	GTGCGGTGGCTCTCACTGGCTTGCCAGGAAACTCGCCTCGCTGGGGCACCGGGTGAAGTTGATTGCTCCGCAACATGTGAAGCCCTACGTGACGGGCAACAAGAATGACTTCATCGATGCCGAAGCTATA	
CI-is7c-6.	GTGCGGTGGCTCTCACTGGCTTGCCAGGAAACTCGCCTCGCTGGGGCACCGGGTGAAGTTGATTGCTCCGCAACATGTGAAGCCCTACGTGACGGGCAACAAGAATGACTTCATCGATGCCGAAGCTATA	
CI-is7c-8.	GTGCGGTGGCTCTCACTGGCTTGCCAGGAAACTCGCCTCGCTGGGGCACCGGGTGAAGTTGATTGCTCCGCAACATGTGAAGCCCTACGTGACGGGCAACAAGAATGACTTCATCGATGCCGAAGCTATA	
CI-is7c-9.	GTGCGGTGGCTCTCACTGGCTTGCCAGGAAACTCGCCTCGCTGGGGCACCGGGTGAAGTTGATTGCTCCGCAACATGTGAAGCCCTACGTGACGGGCAACAAGAATGACTTCATCGATGCCGAAGCTATA	
Consensus	GTGCGGTGGCTCTCACTGGCTTGCCAGGAAACTCGCCTCGCTGGGGCACCGGGTGAAGTTGATTGCTCCGCAACATGTGAAGCCCTACGTGACGGGCAACAAGAATGACTTCATCGATGCCGAAGCTATA	
	911	1040
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is7c-3.txt	TGCGAGGCGGCCTCCAGACCAGTACTCATTACGTTGCCGTCAAGACTGTGGAGCAGCAGGTACTTTCTGTACAACATCGTCTTCGCGAGTCACTGGTTTGCCACCGTACTGAAGCCATCAACAGGGTGC	
CI-is7c-5.	TGCGAGGCGGCCTCCAGACCAGTACTCATTACGTTGCCGTCAAGACTGTGGAGCAGCAGGTACTTTCTGTACAACATCGTCTTCGCGAGTCACTGGTTTGCCACCGTACTGAAGCCATCAACAGGGTGC	
CI-is7c-6.	TGCGAGGCGGCCTCCAGACCAGTACTCATTACGTTGCCGTCAAGACTGTGGAGCAGCAGGTACTTTCTGTACAACATCGTCTTCGCGAGTCACTGGTTTGCCACCGTACTGAAGCCATCAACAGGGTGC	
CI-is7c-8.	TGCGAGGCGGCCTCCAGACCAGTACTCATTACGTTGCCGTCAAGACTGTGGAGCAGCAGGTACTTTCTGTACAACATCGTCTTCGCGAGTCACTGGTTTGCCACCGTACTGAAGCCATCAACAGGGTGC	
CI-is7c-9.	TGCGAGGCGGCCTCCAGACCAGTACTCATTACGTTGCCGTCAAGACTGTGGAGCAGCAGGTACTTTCTGTACAACATCGTCTTCGCGAGTCACTGGTTTGCCACCGTACTGAAGCCATCAACAGGGTGC	
Consensus	TGCGAGGCGGCCTCCAGACCAGTACTCATTACGTTGCCGTCAAGACTGTGGAGCAGCAGGTACTTTCTGTACAACATCGTCTTCGCGAGTCACTGGTTTGCCACCGTACTGAAGCCATCAACAGGGTGC	
	1041	1170
is7c-2.txt	ATGGTTTTTTTGCTTGAGTTCGGAATTGCCTTGCCAGCCACCAAGGCAGCGATCGCCAAAGTGCCCTGAGCTGATTGACGATTACGCTAGCGACCTGCCGCTGCAGTTCAAAGGGTCATGGAGCATTGCT	
is7c-3.txt	ATGGTTTTTTTGCTTGAGTTCGGAATTGCCTTGCCAGCCACCAAGGCAGCGATCAACAAAGTGCCCTGAGCTGATTGACGATTACGCTAGCGACCTGCCGCTGCAGTTCAAAGGGTCATGGAGCATTGCT	
CI-is7c-5.	ATGGTTTTTTTGCTTGAGTTCGGAATTGCCTTGCCAGCCACCAAGGCAGCGATCGCCAAAGTGCCCTGAGCTGATTGACGATTACGCTAGCGACCTGCCGCTGCAGTTCAAAGGGTCATGGAGCATTGCT	
CI-is7c-6.	ATGGTTTTTTTGCTTGAGTTCGGAATTGCCTTGCCAGCCACCAAGGCAGCGATCGCCAAAGTGCCCTGAGCTGATTGACGATTACGCTAGCGACCTGCCGCTGCAGTTCAAAGGGTCATGGAGCATTGCT	
CI-is7c-8.	ATGGTTTTTTTGCTTGAGTTCGGAATTGCCTTGCCAGCCACCAAGGCAGCGATCGCCAAAGTGCCCTGAGCTGATTGACGATTACGCTAGCGACCTGCCGCTGCAGTTCAAAGGGTCATGGAGCATTGCT	
CI-is7c-9.	ATGGTTTTTTTGCTTGAGTTCGGAATTGCCTTGCCAGCCACCAAGGCAGCGATCGCCAAAGTGCCCTGAGCTGATTGACGATTACGCTAGCGACCTGCCGCTGCAGTTCAAAGGGTCATGGAGCATTGCT	
Consensus	ATGGTTTTTTTGCTTGAGTTCGGAATTGCCTTGCCAGCCACCAAGGCAGCGATCGCCAAAGTGCCCTGAGCTGATTGACGATTACGCTAGCGACCTGCCGCTGCAGTTCAAAGGGTCATGGAGCATTGCT	
	1171	1300
is7c-2.txt	GGAGGATATTATCGCCTTGATACCGAAATAAAGGCCTGTGATGCGCAAATCAAGCAGCAACTGGCGCAAGACGATGCTGGTACACGCTTGATGACGATTCTGGCATTGGTCCTATTACCGCCAGCGCA	
is7c-3.txt	GGAGGATATTATCGCCTTGATACCGAAATAAAGGCATGTGATGCGCAAATCAAGCAGCAACTGGCGCAAGACGATGCTGGTACACGCTTGATGACGATTCTGGCATTGGTCCTATTACCGCCAGCGCA	
CI-is7c-5.	GGAGGATATTATCGCCTTGATACCGAAATAAAGGCCTGTGATGCGCAAATCAAGCAGCAACTGGCGCAAGACGATGCTGGTACACGCTTGATGACGATTCTGGCATTGGTCCTATTACCGCCAGCGCA	
CI-is7c-6.	GGAGGATATTATCGCCTTGATACCGAAATAAAGGCCTGTGATGCGCAAATCAAGCAGCAACTGGCGCAAGACGATGCTGGTACACGCTTGATGACGATTCTGGCATTGGTCCTATTACCGCCAGCGCA	
CI-is7c-8.	GGAGGATATTATCGCCTTGATACCGAAATAAAGGCCTGTGATGCGCAAATCAAGCAGCAACTGGCGCAAGACGATGCTGGTACACGCTTGATGACGATTCTGGCATTGGTCCTATTACCGCCAGCGCA	
CI-is7c-9.	GGAGGATATTATCGCCTTGATACCGAAATAAAGGCCTGTGATGCGCAAATCAAGCAGCAACTGGCGCAAGACGATGCTGGTACACGCTTGATGACGATTCTGGCATTGGTCCTATTACCGCCAGCGCA	
Consensus	GGAGGATATTATCGCCTTGATACCGAAATAAAGGCCTGTGATGCGCAAATCAAGCAGCAACTGGCGCAAGACGATGCTGGTACACGCTTGATGACGATTCTGGCATTGGTCCTATTACCGCCAGCGCA	

	1301		1430
is7c-2.txt	TTTGTAGCGGATCTGGGTGACGCTTCCAATTTTCGAGCCTCACGAGACCTTTCCGCTTTTCTGGGGCTGGTTC	CCAGACAGTTCTCTACAGGCGGGAGACCCGTATTGCTGGGTATCAGCAAGCGAGGTG	
is7c-3.txt	TTTGTAGCGGATCTGGGTGACGCTTCCAATTTTCGAGCCTCACGAGACCTTTCTGCTTTTCTGGGGCTGGT	TC	CCAGACAGTTCTCTACAGGCGGGAGACCCGTATTGCTGGGTATCAGCAAGCGAGGTG
CI-is7c-5.	TTTGTAGCGGATCTGGGTGACGCTTCCAATTTTCGAGCCTCACGAGACCTTTCCGCTTTTCTGGGGCTGGT	TC	CCAGACAGTTCTCTACAGGCGGGAGACCCGTATTGCTGGGTATCAGCAAGCGAGGTG
CI-is7c-6.	TTTGTAGCGGATCTGGGTGACGCTTCCAATTTTCGAGCCTCACGAGACCTTTCCGCTTTTCTGGGGCTGGT	TC	CCAGACAGTTCTCTACAGGCGGGAGACCCGTATTGCTGGGTATCAGCAAGCGAGGTG
CI-is7c-8.	TTTGTAGCGGATCTGGGTGACGCTTCCAATTTTCGAGCCTCACGAGACCTTTCCGCTTTTCTGGGGCTGGT	TC	CCAGACAGTTCTCTACAGGCGGGAGACCCGTATTGCTGGGTATCAGCAAGCGAGGTG
CI-is7c-9.	TTTGTAGCGGATCTGGGTGACGCTTCCAATTTTCGAGCCTCACGAGACCTTTCCGCTTTTCTGGGGCTGGT	TC	CCAGACAGTTCTCTACAGGCGGGAGACCCGTATTGCTGGGTATCAGCAAGCGAGGTG
Consensus	TTTGTAGCGGATCTGGGTGACGCTTCCAATTTTCGAGCCTCACGAGACCTTTCCGCTTTTCTGGGGCTGGT	TC	CCAGACAGTTCTCTACAGGCGGGAGACCCGTATTGCTGGGTATCAGCAAGCGAGGTG
	1431		1560
is7c-2.txt	ACAGGCACCTGCGAACCCTGTTGGTGCAAGGTTCTCGAGCGCTCATGATTCGAATAGAACGCCGCGATGAT	GCCCTTGGGCAGTGGGTAAGAGACTTGTGGCACGCAAGCATCCGAACAAGGTGGCATG	
is7c-3.txt	ACAGGCACCTGCGAACCCTGCTGGTGCAAGGTTCTCGAGCGCTCATGATTCGAATAGAACGCCGCGATGAT	GCCCTTGGGCAGTGGGTAAGAGACTTGTGGCACGCAAGCATCCGAACAAGGTGGCATG	
CI-is7c-5.	ACAGGCACCTGCGAACCCTGTTGGTGCAAGGTTCTCGAGCGCTCATGATTCGAATAGAACGCCGCGATGAT	GCCCTTGGGCAGTGGGTAAGAGACTTGTGGCACGCAAGCATCCGAACAAGGTGGCATG	
CI-is7c-6.	ACAGGCACCTGCGAACCCTGTTGGTGCAAGGTTCTCGAGCGCTCATGATTCGAATAGAACGCCGCGATGAT	GCCCTTGGGCAGTGGGTAAGAGACTTGTGGCACGCAAGCATCCGAACAAGGTGGCATG	
CI-is7c-8.	ACAGGCACCTGCGAACCCTGTTGGTGCAAGGTTCTCGAGCGCTCATGATTCGAATAGAACGCCGCGATGAT	GCCCTTGGGCAGTGGGTAAGAGACTTGTGGCACGCAAGCATCCGAACAAGGTGGCATG	
CI-is7c-9.	ACAGGCACCTGCGAACCCTGTTGGTGCAAGGTTCTCGAGCGCTCATGATTCGAATAGAACGCCGCGATGAT	GCCCTTGGGCAGTGGGTAAGAGACTTGTGGCACGCAAGCATCCGAACAAGGTGGCATG	
Consensus	ACAGGCACCTGCGAACCCTGTTGGTGCAAGGTTCTCGAGCGCTCATGATTCGAATAGAACGCCGCGATGAT	GCCCTTGGGCAGTGGGTAAGAGACTTGTGGCACGCAAGCATCCGAACAAGGTGGCATG	
	1561		1690
is7c-2.txt	TGCTTTAGCGAACAAGCTGGCAAGAATCGTATGGGCGGTGCTCAGACGAGGTAGCACTTACAACGCATCAAT	GATCTGAGTAGGACATAGGCGTACCGGCTTTTGCGACGCGAGTGATGATGACGATAAAC	
is7c-3.txt	TGCTTTAGCGAACAAGCTGGCAAGAATCGTATGGGCGGTGCTCAGACGAGGTAGCACTTACAACGCATCAAT	GATCTGAGTAGGACATAGGCGTACCGGCTTTTGCGACGCGAGTGATGATGACGATAAAC	
CI-is7c-5.	TGCTTTAGCGAACAAGCTGGCAAGAATCGTATGGGCGGTGCTCAGACGAGGTAGCACTTACAACGCATCAAT	GATCTGAGTAGGACATAGGCGTACCGGCTTTTGCGACGCGAGTGATGATGACGATAAAC	
CI-is7c-6.	TGCTTTAGCGAACAAGCTGGCAAGAATCGTATGGGCGGTGCTCAGACGAGGTAGCACTTACAACGCATCAAT	GATCTGAGTAGGACATAGGCGTACCGGCTTTTGCGACGCGAGTGATGATGACGATAAAC	
CI-is7c-8.	TGCTTTAGCGAACAAGCTGGCAAGAATCGTATGGGCGGTGCTCAGACGAGGTAGCACTTACAACGCATCAAT	GATCTGAGTAGGACATAGGCGTACCGGCTTTTGCGACGCGAGTGATGATGACGATAAAC	
CI-is7c-9.	TGCTTTAGCGAACAAGCTGGCAAGAATCGTATGGGCGGTGCTCAGACGAGGTAGCACTTACAACGCATCAAT	GATCTGAGTAGGACATAGGCGTACCGGCTTTTGCGACGCGAGTGATGATGACGATAAAC	
Consensus	TGCTTTAGCGAACAAGCTGGCAAGAATCGTATGGGCGGTGCTCAGACGAGGTAGCACTTACAACGCATCAAT	GATCTGAGTAGGACATAGGCGTACCGGCTTTTGCGACGCGAGTGATGATGACGATAAAC	
	1691		1820
is7c-2.txt	AGCTCATGGCCAGACTGAAAACCTGATAG-CAATGCAGCCTTCGAGGCTTTAGGGATTTT	TGAGGACAGTAAGGCGGCGAATACTCATCAAGGGCCGGGCAGCGAAATTGCCAGAATGAGCCCGGATAC	
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CI-is7c-5.	AGCTCATGGCCAGACTGAAAACCTGATAGGCAAAGCAGCCTTCGAGGCTTTAGGGATTTT	TGAGGACAGTAAGGCGGCGAATACTCATCAAGGGCCGGGCAGCGAAATTGCCAGAATGAGCCCGGATAC	
CI-is7c-6.	AGCTCATGGCCAGACTGAAAACCTGATAGGCAAAGCAGCCTTCGAGGCTTTAGGGATTTT	TGAGGACAGTAAGGCGGCGAATACTCATCAAGGGCCGGGCAGCGAAATTGCCAGAATGAGCCCGGATAC	
CI-is7c-8.	AGCTCATGGCCAGACTGAAAACCTGATAGGCAAAGCAGCCTTCGAGGCTTTAGGGATTTT	TGAGGACAGTAAGGCGGCGAATACTCATCAAGGGCCGGGCAGCGAAATTGCCAGAATGAGCCCGGATAC	
CI-is7c-9.	AGCTCATGGCCAGACTGAAAACCTGATAAGCAATGCAGCCTTCGAGGCTTTAGGGATTTT	TGAGGACAGTAAGGCGGCGAATACTCATCAAGGGCCGGGCAGCGAAATTGCCAGAATGAGCCCGGATAC	
Consensus	AGCTCATGGCCAGACTGAAAACCTGATAGGCAAAGCAGCCTTCGAGGCTTTAGGGATTTT	TGAGGACAGTAAGGCGGCGAATACTCATCAAGGGCCGGGCAGCGAAATTGCCAGAATGAGCCCGGATAC	
	1821		1950
is7c-2.txt	ATTAGCGCAAGCATGCTTTACCGCTCATCGAACTGCGATTG	CAGGAGTGGGCTGACCATACATTTGCTTACTTTGGCCCC	TTCAAAGTAAGTCGCCGAGGGGCGAAAAGGTGACCTGAGCCGAAAACAG
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CI-is7c-5.	ATTAGCGCAAGCATGCTTTACCGCTCATCGAACTGCGATTG	CAGGAGTGGGCTGACCATACATTTGCTTACTTTGATCC-TTCAAAGTCAATCGCCGAGAGGCGAAAAGGTAACTT	TGAGTCGTAACAA
CI-is7c-6.	ATTAGCGCAAGCATGCTTTACCGCTCATCGAACTGCGATTG	CAGGAGTGGGCTGACCATACATTTGCTTACTTTGGCCCCATCAAAGTAGGT	CGCCGAGGGGCGAAAAGGTGCTTTGAGTCGAGCCCCGA
CI-is7c-8.	ATTAGCGCAAGCATGCTTTACCGCTCATCGAACTGCGATTG	CAGGAGTGGGCTGACCATACATTTGCTTACTTTGGCCCCATCAAAGTAGGT	CGCCGAGGGGCGAAAAGGTGCCTCGAGCCGTAACAA
CI-is7c-9.	ATTAGCGCAAGCATGCTTTACCGCTCATCGAACTGCGATTG	CAGGAGTGGGCTGACCATACATTTGCTTACTTTGGTCCCT-CAAAGTAGGGCGCCGAGAGGCGAAAAGGTACCTT	TGAGTCGTAACAA
Consensus	ATTAGCGCAAGCATGCTTTACCGCTCATCGAACTGCGATTG	CAGGAGTGGGCTGACCATACATTTGCTTACTTTGGTCCCTCAAAGTAGGT	CGCCGAGGGGCGAAAAGGTGCTTTGAGTCGTAACAA

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1951
is7c-2.txt ACATCACTGACATTGCAGAACCGCTT TGATGCAGAGCGTTACGAACACAAGAGGACGCAGAGCGTCCAGAACTGCATGCCGACG-----CGGAGCATCGGCACGATAGTCATGCACAAGCCTGCTTCT
is7c-3.txt ATCCAACCTGACATAGCTGAACCGCAGTGTAACGTTCCACGTACATATCTGCGTCGCACGATAGTTGAGATTATCGCTCCCTGCGTTTCAGCGTTGGAATGCCCTCGGGTGACGCTCTGCTTCAAGTCTGT
CI-is7c-5. ACATCACTGATATCACAGAACCGCAGTGTGATGCTCCGCGCCACAGACCTGCGCGGCATACTCAGGATAGGACGCAGAGCGGTCCA-----GAACGGCGTGCGACGCAGAGCGTCGCACGATAATTGAA
CI-is7c-6. ATCTCACTGAC-TCGCAGAACCACATGTGGCGCGAAGCGCCACAAA----GAGGACGCAGAGCGTCCAGAACAGCATGCGACGCGGAGCGTCGCACGATAGTTGAAAAAACGCTTTTTTTATCGCAATGG
CI-is7c-8. ACATCACTGACCTCGCCGAACCGCCGTGCGACGCAGAGCGTCCAGAACGGCATGCCGACGCGGAGCATCGGCACGATAGTCAGTTAGATTTGTGTCTAACGCTGAGCGCGGGGAGATAATCATCAAAGC
CI-is7c-9. ACATCACTGACCTTGCAGAACCGCAGTGTGACGCGGAGCGCCACAAA-----AGGACGCAGAGCGTCCAGAACGGCATGCCGACGCGGAGCGTCGCACGATAGTTGAAAGAAAGTGCTTTTTTATCGCGGT
Consensus AcaTCACTGAC.T.GCaGAACCGC.gTGtgaCGC...GCG.CacA.A.....gg.C.Ca..g.Gt..aG.ac.g.tGC.....g....a..g.....ga.g..c.....g.

2081
is7c-2.txt GCCCGA--AGGGCTGGGGCGACCGGGGCGCGATCCGCATTGTTCGCGAAGACTGTGTTTCAGGCGACCCGATTTCTGCGACTGTACGGCCATTTCGCGAACAAGTTCGCTCCCACGGATCCTGACTT
is7c-3.txt GCCACACCACAACGTCATGCCTTGCCCTCTAGTCACTGCCTATAAACGAAAGCGTTTTTTTACCGCCATGGCACTGACCGACGCAGAATGAGGCCGTAAGTGACGGCTGAGCCGAGACACAGGAGCGAAAAACT
CI-is7c-5. GCGGCATCACGACCGGAGCGCCGCACGATGTTGAAAAATGCAGCGCTTGGGCCATCGTCTTCTTGAGCAAGCTCACCCAACAGGTGCATATCCAGCCTGATACTGCAATTCACCCACACCCTTCCAGGGCT
CI-is7c-6. CACTGACGACGCAGAGTGCGACGTAAGTGACGGCTGAGCCCTGGCGCTGATCCGGGGGATGCGAGGCAGGACGCGAGCAAGCTGCACCCGGGCCAAGGATGGCCCGTTGCAGCGACCCCGGATCAGTGT
CI-is7c-8. CCCACTTTTCGTGCCGTCAGTTTCAGCAACCGCAACCGTCTCCGGCACAAAAGTCG-----AACGAGCCGAGATTCATCCCCCTGTTCATCGACCTGCAGCACCCAGGCCCTGACGGTCCCGTCACCCAG
CI-is7c-9. GGCACCGACGACGCAGAGTGCGACGTAAGAAGAACCGAGAGGTGTCCGCCAGAGCACCTCTCGATCCATCAGCAAAAACGCAACAAAACGTGGCACAGTCGCCCGAAAAAATGCACATTGGCCGCCCCAGG
Consensus gcC.ca..acg....g.....g.....c.....c....t.tt.....gc.....C..c..tg....ggc.....c.a...C.g....c...gc.....t

2211
2248
is7c-2.txt CGCTACACTCCCGCCAATCACATCCACTCAAGCAGGAG
is7c-3.txt TGTTACTGTGCGTGCCATTCTCAACACATT
CI-is7c-5. CTTCAAGATGTGTGTATAGCCGAGCGCGAAGCGACTTT
CI-is7c-6. CAGGGCGAAGGAACCCGACGAAGTCGGGCCGGAA
CI-is7c-8. CACGATACGTTTTGCCGACTGATCGCCAATCTGCAATT
CI-is7c-9. CGCATGTGACACATTTTGTAAATCATCCGTCCGG
Consensus C...a.....C.....C.C.....

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REP sequences are in green background

Alignment of REP sequences adjacent to ISPsy7

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1
2  TGATGCAGAGCGTTACGAACACAAGAGGACGCAGAGCGTC--CAGAACTGCA
3  GGACGCAGAGCGTCCAGAACGGCATGC-GACGCGGAGCGTCG-CACGATAGT
4  AGGACGCAGAGCGTCCAGAACAGCATGC-GACGCGGAGCGTCG-CACGATAGT
9  AGGACGCAGAGCGTCCAGAACGGCATGC-GACGCGGAGCGTCG-CACGATAGT
5  AGGACGCAGAGCGTCCAGAACGGCGTGC-GACGCAGAGCGTCG-CACGATAAT
8  GCGACGCAGAGCGTCCAGAACGGCATGCCGACGCGGAGCATCGGCACGATA
Consensus .gGACGCAGAGCGTCCAGAACgGCATGC.GACGCgGAGCGTCG CACGATAgt.

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Pseudomonas syringae canonical REP sequence:

GGACGCAGAGCGTCCAGAACGGCATGCCGACGCAGAGCGTCGCACGATAGT