

Additional file 12 *pcmsp-7L* putative donor and acceptor sites.

	*	20	*	40	*	60	*	
Sal-I_pvm _{sp} -7L :	ATGAAAAC	AAAAGTACTATTCT	TCTTGCCGT	CCATTTTGC	TGCTACCACATT	CGGTATGGTC	CAGAAACGAAAGGTC	: 76
Pc _{msp} -7L_DNA :	ATGAAAAT	AAAAGTACTATTCA	TCTTGCCACC	CATTTTGT	TGCTACCACATT	CGGTATGGTC	CAGAAACGAAAGGTC	: 76
Pc _{msp} -7L_mRNA :	ATGAAAAT	AAAAGTACTATTCA	TCTTGCCACC	CATTTTGT	TGCTACCACATT	CGGTATGGTC	CAGAAACGAAAGGTC	: 76
	80	*	100	*	120	*	140	*
Sal-I_pvm _{sp} -7L :	CATCTGGGCC	CCCCCAAATA	AGAAGCT	TAAATGCTAACG	CACTACATTTCT	TAAGG	GGCAAATTAGAGTTA	CTAAA : 152
Pc _{msp} -7L_DNA :	CACCTGGGCC	CCCCAAAAC	TGAGAT	GCCAAATGCTAAC	CACTACATTTCT	TAAAA	GGCAAATTAGAACAC	CTAAA : 152
Pc _{msp} -7L_mRNA :	CACCTGGGCC	CCCCAAAAC	TGAGAT	GCCAAATGCTAAC	CACTACATTTCT	TAAAA	GGCAAATTAGAACAC	CTAAA : 152
	160	*	180	*	200	*	220	
Sal-I_pvm _{sp} -7L :	TAAATCAGCG	AGGAGCAGGT	AGTTTCTCCAGATTTT	TAAAAAAACG	TAGAACTGCT	GAAAAAG	AAAATTGAGGAA	: 228
Pc _{msp} -7L_DNA :	TAAATCAGCA	AAGAGAAT	GCAGTATCTCCAGATTT	TAAAAAAAC	ATAGAACTGCT	TAAAAAA	AAAATCGAGGAA	: 228
Pc _{msp} -7L_mRNA :	TAAATCAGCA	AAGAGAAT	GCAGTATCTCCAGATTT	TAAAAAAAC	ATAGAACTGCT	TAAAAAA	AAAATCGAGGAA	: 228
	*	240	*	260	*	280	*	300
Sal-I_pvm _{sp} -7L :	CTACAGGGT	AAGGCAGAAAAG	GATAAAAGTAAAAC	GGATGGGGG	AGGATACCAC	ACCCAAGG	AACAGCAAGAAGATC	: 304
Pc _{msp} -7L_DNA :	CTAGAAGGG	AAGGCAGAAAA	GATAAAC	-----	GGATGGGGT	GGATACTAT	ACCCAGTGGACAGCAAGCATGTG	: 298
Pc _{msp} -7L_mRNA :	CTAGAAGGG	AAGGCAGAAAA	GATAAAC	-----	GGATGGGGT	GGATACTAT	ACCCAGTGGACAGCAAGCATGTG	: 298
	*	320	*	340	*	360	*	380
Sal-I_pvm _{sp} -7L :	AAAATGTGAGT	CAAAACGGATT	GGAAGAGCAGGCC	CCAAGTGACAGT	AACGAGGGAG	AAGCGC	CAGGAAGAAAACAC	: 380
Pc _{msp} -7L_DNA :	AAAATGTGAGT	CAAAACGGATT	TGAAGAGAAGAC	CCATGTGGCAGCA	ATGAGGGAAA	AAGCGG	CAGGAAGAAAAC	: 374
Pc _{msp} -7L_mRNA :	AAAATGTGAGT	CAAAACGGATT	TGAAGAGAAGAC	CCATGTGGCAGCA	ATGAGGGAAA	AAGCGG	CAGGAAGAAAAC	: 374
	*	400	*	420	*	440	*	
Sal-I_pvm _{sp} -7L :	TCAAGTCAAAA	ATGTCATTTTTT	TACGGAGA	AGGAAGAAGCGG	TAGATGAAGAAG	CTGAAAA	AGAACACCGCTGTC	: 456
Pc _{msp} -7L_DNA :	TCAAGTCAAAA	ATGTCATTTTTT	TATGAAAA	AGGAGAAAGCGAT	CGATGAAGAAG	TGGGAAC	AAAGAACACCGCTATC	: 450
Pc _{msp} -7L_mRNA :	TCAAGTCAAAA	ATGTCATTTTTT	TATGAAAA	AGGAGAAAGCGAT	CGATGAAGAAG	TGGGAAC	AAAGAACACCGCTATC	: 450

Sal-I_pvmsp-7L : **ATAAGT**460**GAAAAGGC*****GAAATTT**480**CCAAATGAGGAATCGC*****AAGGAAATGATGA**500**AACGC*****AACGCAGGAGAGC**520**CATCGAGG*** : 532
 Pcmsp-7L_DNA : **ATAACT**GAAAAG**GAAGAAATTG**CCAAAT**TGAGGAATCGC**CGGGAAT**GGATGG**AACGCAGG**CGAAGGAGAGT**ATCGAGG : 526
 Pcmsp-7L_mRNA : **ATAACT**GAAAAG**GAAGAAATTG**CCAAAT**TGAGGAATCGC**CGGGAAT**GGATGG**AACGCAGG**CGAAGGAGAGT**ATCGAGG : 526

Sal-I_pvmsp-7L : **GAGAAGC**540**TTCT*****CCCCGGAGTTG**560**TAGTCGACG*****GAGACAGATGACT**580**CACCAGAAGGC*****GAACCCCTATCCGGATT**600**TGGAAAC** : 608
 Pcmsp-7L_DNA : **GAGAAGC**GT**TACCCCGGAGTTA**TAGT**GGACAAGACAGGTGAT**T**CACCAAGGG**GAGAAAT**CCTATCCGGAT**CGGAAAC : 602
 Pcmsp-7L_mRNA : **GAGAAGC**GT**TACCCCGGAGTTA**TAGT**GGACAAGACAGGTGAT**T**CACCAAGGG**GAGAAAT**CCTATCCGGAT**CGGAAAC : 602

Sal-I_pvmsp-7L : **GGAAGG*****CAATT**620**CTTCAGCTGAG*****GAGTGCC**640**CCAAATGAG*****CCGGACG**660**TTAACACCACACATA*****CGGCAGT**680**TAGATACGCAC** : 684
 Pcmsp-7L_DNA : **GGAAGG**TAAGC**CTTCAGCTGA**AAGCA**CTCCAAATGA**ACCGA**ATGTTAACAT**CATACATATAC**CAGCACACACAGAC** : 678
 Pcmsp-7L_mRNA : **GGAAGG**----- : 607

Sal-I_pvmsp-7L : **ATGCCAG*****CAGATG**700**CGAACATAGGAGT*****AGACACAAATATG**720**CATTTG*****ACACA**740**CCTCCC*****CACCCAAGCGGCGA**760**AAAACC** : 760
 Pcmsp-7L_DNA : **TCAGGCACACACAC**ACTCAGATAC**AAACACAGAC**AAAC-----**ACACAGACACA**CACCCAAGCGGCG**GAAGTC** : 748
 Pcmsp-7L_mRNA : ----- : -

Sal-I_pvmsp-7L : **CCGGCGC*****ACCCCAAG**780**AGACGC*****ACCCTTCCCT**800**CCATTGAC*****GAAAATGCA**820**AATAGAAGAGCA*****TCACG**840**AATGAAACATAT*** : 836
 Pcmsp-7L_DNA : **CCAGCGCACCCCAAA**AAGAC**ACCCTTTC**CA**CCATTTACA**AAAAT**GTAAAC**CAGAAGAG**CGTCAAGAACT**AAAC**CACAT** : 824
 Pcmsp-7L_mRNA : ----- : -

Sal-I_pvmsp-7L : **GAGC**840**AGCTT*****CCTAAATGGC**860**CTCTTAACCAATCAAAGCA*****ATAAC**880**AAAAAGGAAATAT*****TTTTCCAC**900**CCATATTATGGC*** : 912
 Pcmsp-7L_DNA : **GAACC**CGCTT**CCTAG**ATGGC**CTCTTAACCAATCAAAGCA**-----**AAAAAAAGGAAATG**TA**TTTTCCAT**CCATATTATGGC : 898
 Pcmsp-7L_mRNA : ----- : -

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          920          *          940          *          960          *          980
Sal-I_pvmsp-7L : CCCTATTTTAACCA CGGCGGG TACTATAACTATG ACCCCTATTATAATTATG CCCCAGC GTACAACCCATT TGTGA : 988
Pcmsp-7L_DNA   : CCCTATTTTAACCA TCACGCA TACTATAACTATT ACCCCTATTATAATTATC CCCC GGTGTATTAACCCATA TGTGA : 974
Pcmsp-7L_mRNA  : ----- : -

          *          1000          *          1020          *          1040          *          1060
Sal-I_pvmsp-7L : GCCAAGCAAGGGATTACGAAGTGA TTA AAAA GTTGCTTGATGCT TGCTTTAACAAAG GGAAGGAGCCGATCCAAA : 1064
Pcmsp-7L_DNA   : CCAAACAAAGGATTACGAAGTGG TTA AAAA ATTGATTGATGCT TGCTTTAACAAAG GGAAGGAGCCGATCCAAA : 1050
Pcmsp-7L_mRNA  : ----- GGAAGGAGCCGATCCAAA : 626

          *          1080          *          1100          *          1120          *          1140
Sal-I_pvmsp-7L : TGTGCCCTGCATAATTGACAT TATTCAAAAAAGTGCTAGACGACGAACGGTTTCGAAACGAAC TAAAACTTTTATG : 1140
Pcmsp-7L_DNA   : TGTACCCTGCATAATTGACT TATTCAAAAAAGTGT TAGACGACGAAGGGTTTCGAAACGAAT TAAAACTTTTCATG : 1126
Pcmsp-7L_mRNA  : TGTACCCTGCATAATTGACT TATTCAAAAAAGTGT TAGACGACGAAGGGTTTCGAAACGAAT TAAAACTTTTCATG : 702

          *          1160          *          1180          *          1200          *
Sal-I_pvmsp-7L : TATGACCTTTACGAATTTT TGA AAAA GAATGACGTCTTAAGTGATGATG AAAAA GAAAAACGAGTTGATGAGATTTT : 1216
Pcmsp-7L_DNA   : TATAACCTTTACGAATTTGCC AAAA GAATGACGTCTTAAGTGATGCGGGAAGGAAAAACGAATTGATGAAATTCT : 1202
Pcmsp-7L_mRNA  : TATAACCTTTACGAATTTGCC AAAA GAATGACGTCTTAAGTGATGCGGGAAGGAAAAACGAATTGATGAAATTCT : 778

          1220          *          1240          *          1260
Sal-I_pvmsp-7L : TCTTTGACAATGCCCTTTCAGTTGGTCAACCCGATGTTT TACTACTGA : 1263
Pcmsp-7L_DNA   : TCTTTGACAATGCCCTTTCAGTTGGTCAACACGATGTTGCACTACTGA : 1249
Pcmsp-7L_mRNA  : TCTTTGACAATGCCCTTTCAGTTGGTCAACACGATGTTGCACTACTGA : 825

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An alignment was made between the Sal-I strain *pvm**sp*-7*L* sequences, *pcmsp*-7*L* and the sequence resulting from GeneScan analysis (*pcmsp*-7*L*_mRNA). The red arrows indicate the putative donor and acceptor sites in *pcmsp*-7*L*.