

(A)

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1 MIFYRNYINA DPFDDPFDE GDEKDKKGR KKKEKKEPKE PKIIPKVPY IEIEEVEELE
61 RIENEPNDSE NGDEDEDEAE IYEKKIYYE EVVNFIDLYS FLYKNGIIFL WENLTMEVAN
121 KIIKLIICLD IYGDATETAS VLINCSKGS LARSRLCNFM NEGSDINIET ICGQVGGPG
181 IYALLGGRTR LAFNCSFLL SRPNIKLDPR LPPSEYEVD A NIKLQICGSL QDIFTEKTGQ
241 PPEFIRDIGR RVRYSAAEA REYGIIDEII RGFNFKKPED ETQEKSCKNG E

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(B)

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1
MON1_ClpP ATGATTTTTTATCGAAATTACATAAACGCAGATCCTTTTGACGATCCTTTTGACGATGAA
Mon2_ClpP ATGATTTTTGATCGAAATTACATAAACGCGGATCCTTTTGACGATCCTTCTGACGATGAA
61
MON1_ClpP GGGGATGAAAAGGATAAAAAGGGTAAAAGGAAGAAGAAGGAGAAAAAAGAGCCTAAAGAG
Mon2_ClpP GGGGATCTCGAAAAGGGAAGAAAAAGGAAGAAAAGGAGAAAACCTAAAGAGCCTAAAGAG
121
MON1_ClpP CCTAAAATAATTATCCCTAAAGTTCCTTATATAGAAATAGAAGAAGTTGAAGAGTTAGAA
Mon2_ClpP CCTAAAATAATTATCCCTAAAGTTCCTTATATAGAAATAGAAGAAGTTGAAGAGTTCGAA
181
MON1_ClpP AGAATTGAAAATGAACCTAATGACAGTGAAAATGGGGATGAGGA-----
Mon2_ClpP AGAATTGAAAATGAACCTAATGACAGTGAGTATGAGTATGAGGAAGAAATAGACGAAGTT
241
MON1_ClpP -----
Mon2_ClpP GAAGAGTTCGAAAGAATTGAAAATGAACCTAATGACAGTGAGTATGAGGAAGAA
301
MON1_ClpP -----
Mon2_ClpP ATAGACGAAGTTGAAGAGTTCGAAAGAATTGAAAATGAACCTAATGACAGTGAGTATGAG
361
MON1_ClpP -----
Mon2_ClpP TATGAGGAAGAAATAGACGAAGTTGAAGAGTTCGAAAGAATTGAAAATGAACCTAATGAC
421
MON1_ClpP --TGAGGATGAGGCAGAAATAATTTATGAAAAAATATATATATGAAGAAGTAGTAAAT
Mon2_ClpP AGTGAGCTGAGGAAGAAATAATTTAT-AAAAAATATATATATATGAAGAAGTAGTAAAT
481
MON1_ClpP TTTATTGATTATATTTCTTTCTTTATAAGAACGGTATTATATTTCTATGGGAAAATCTC
Mon2_ClpP TATATTGATTAGATTCTTTCTTTATAAGAAAGGTCTTATCTTTCTATGGGAAAATCTC
541
MON1_ClpP ACTATGGAGGTCGCTAATAAAATTATAAAATTGATAATATGCCTTGATATTTATGGTGAT
Mon2_ClpP ACTATGGAGGTCGCTAATAAAATTATACAATTGATAATATGCCTTGATATTTATGGTGAT
601
MON1_ClpP GCGACGGAACCGCAAGCCTTCTTATAAACTGCTCTAAAGGAAGCCTACTTGCTTCAAGG
Mon2_ClpP GCGCCAGAAAAGGCAAGTGTCTTATAAACTGCTCTAAGGGAAGCCTACTTGCTTCAAGG
661
MON1_ClpP ACTCTTTGTAATTTTCATGAATGAGGGGTCAGACATAAACATAGAGACAATAGGCTGCGGG
Mon2_ClpP ACTCTTTGTAATTTTCATGACTGAGGGGGCAGACATAAACATAGAGACAATAGGATGTGGA
721
MON1_ClpP CAGGTTGGAGGACCGGGAATCTATGCCTTGCTTGGGGGAAGGACACGTTTAGCATTCCT
Mon2_ClpP CAGGTTGGAGGACCGGGAATCTATACCTTGCTTGGGGGAAGGACACGTTTAGCATTCAT
781
MON1_ClpP AACTGTTTCCTGCTTTCTCGACCGAACATTAATTTGGATCCGCGTCTTCCACCCTCA
Mon2_ClpP AACTGTAGTTTCCTGCTTTCCGACCGAACATTAATTTGGATCCACGCTTCCGCCCTCA
841
MON1_ClpP GAATATGAAGTTGATGCAACATAAAATTTGCAGATATGTGGATCTCTACAAGATATTTTT
Mon2_ClpP GAATATGAGGTTGATGCAACATAAAATTTGGAGATATGTAGGGTCTAGAAGATATTTTT
901
MON1_ClpP ACGGAAAAACGGGGCAACCTCCTGAATTTATAAGAGATATAGGAAGAAGAGTGCCTTAT
Mon2_ClpP ACGGAAAAACGGGGCAACCTCCTGAATTTATAAGAGATATAGGAAGAGG---TTATTCT
961
MON1_ClpP ATGTCCGCGGCAGAAGCCCGAGAGTACGGAATTATCGACGAGATCATACTGGTTTTAAT
Mon2_ClpP ATATCCGCGCAGAGAAGCCCGAGAGTACGGAATTATCGACTCGATCATACTGGTTTTAAT
1021
MON1_ClpP TTTAAAAACCTGAGGATGAAACCCAGGAAAAATCAGACAAAAATGGGGAATAA
Mon2_ClpP TTTAAAAACCTGAGGATGAAACCCAGGAAAAAGAAGACAAAAATGGAGAATAA

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Figure S2. ClpP coding regions.

(A) Predicted amino acid sequence of the ClpP protein from *M. hypopitys* MON1-VOLR. The ClpP protease domain (pfam00574) is shaded.

(B) Alignment of the nucleotide sequences of ClpP coding regions from *M. hypopitys* MON1-VOLR (MON1-ClpP) and *M. hypopitys* MON2-KALR (MON2-ClpP) plastomes. 72-nt long sequence, tandemly duplicated in the MON2 (4 copies), is shaded and shown by an arrow. Note that there is a frameshift in the *clpP* reading frame in MON2 genome due to 1 bp deletion at bp 448, but it was not verified.