

CMV RNA1 (1a)

CLUSTAL format alignment by MAFFT (v7.505) samples, plant:sPI-13;
 fungus:Radish-2 27-4

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plant      GGCTTTAGAGGATTATGTG (CMV-CF:5' primer)
fungus     ggcttttaggactgtgtgaagcgtatgaacgctcacggaaccactattttgaagggaacg
          -----agggaaacg
          *****

plant      atgatgttcgatggtgctatgatgtttgacgaccaagggtgtaatacccgaaacttaactgt
fungus     atgatgttcgatggtgctatgatgtttgacgaccaagggtgtaatacccgaaacttaactgt
          *****

plant      cagtggagaaagatcaggagtgctttctctgaaactgaagcgtcacaccgctgactgag
fungus     cagtggagaaagatcaggagtgctttctctgaaactgaagcgtcacaccgctgactgag
          *****

plant      aaactcaattccacaatatctcccgcgtgcgtaaatcaagactatggtggctttcgt
fungus     aaactcaattccacaatatctcccgcgtgcgtaaatcaagactatggtggctttcgt
          *****

plant      ttatcaacgagcttactatgtcttatgtacatgattgggagaataaaaatttttctc
fungus     ttatcaacgagcttactatgtcttatgtacatgattgggagaataaaaatttttctc
          *****

plant      acggatcagacttattcataccgagggatgacctatggattgagcgggtgcgttattcac
fungus     acggatcagacttattcataccgagggatgacctatggattgagcgggtgcgttattcac
          *****

plant      gctggattatgacgtataagatcattggtgtacctgggatgtgccacccgaactca
fungus     gctggattatgacgtataagatcattggtgtacctgggatgtgccacccgaactca
          *****
                                TATGCCCAACCGAACTCA
                                (CMV-CR:3' primer)

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CMV RNA3 (MP)

CLUSTAL format alignment by MAFFT (v7.505) Samples, plant:Radish-2;
 fungus:Radish-2 27-4

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Plants     AGGCATGCTTCCAAGGTAC (CM-R3-119-F:5' primer)
fungus     ttccaaggtaccagcaggactttaacccaacagtcct
          ttccaaggtaccagcaggactttaacccaacagtcct
          *****

Plants     cagcggctacgtctgacgaactcaaaagataattattagccctgatgccatcaagaaaa
fungus     cagcggctacgtctgacgatcttcaaaagataattattagccctgaagccattaagaaaa
          *****

Plants     tggctgctgagtgtagcttaggcggcatcattggatgcgtgctgataatgcgatttcag
fungus     tggctactgagtgtagcttaggcggcatcattggatgcgcgctgataatgcatttcag
          *****

Plants     tcgggcccctcggtccgaagtaaccacggctgattgcttctctttaagtcctggat
fungus     tcgggcccctcggtccgaagtaaccacggctgattgcttctctttaagtcctggat
          *****

Plants     atgatgctgggtaattgtgctctaaaggatacatgagcgtccctcaagtggtgtgctg
fungus     atgatgttggtgaattatgctcaaaaggatacatgagtgctccctcaagtggttatgctg
          *****

Plants     ttactgaacagctctccactgatgctgaagggtctctgagaattacctaagctgatttag
fungus     ttactgaacagcttccactgatgctgaagggtctctgagaattacttagctgactg
          *****

Plants     gcgataaggagctatctcccatagataagcagtcgctcacattacataaccatgatcttc
fungus     gcgacaaggagttatctcccatagatgggcaatgcgttctggtacataaccatgatcttc
          *****

Plants     ccgcttttagtgctttccaaccgacgtatgattgtcccatggagacagttgggaatcgga
fungus     ccgcttttggtgctttccaaccgacgtatgattgtcctatggaaacagttgggaatcgta
          *****

Plants     agcgggtgttttgacgtgtcatcgaaagacatggttatattgggtataccggcaccacag
fungus     agcgggtgttttgctgtcggtatcgaaagacatggttatattgggtataccgggtaccacag
          *****

Plants     ctacgctgtgtagtaattggcaagcaggtttctctagaataaacaactacactcata
fungus     ctacgctgtgtagtaattggcaagcaggtttctcacaagaataacaactacactcata
          *****

Plants     tcgcagctgggaagactctagtactgccattcaacagattagctgagcaaacgaaaacc
fungus     tcgcagctgggaagactctagtactgcc-----
          *****
                                GCTGAGCAAACGAAACGTCAG
                                (CM-R3-769-R :3' primer)

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CLUSTAL format alignment by MAFFT (v7.505)

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Plants     ...SSAATSDELQKILFSPDAIKKMAECDLGRHHWMRADNAISVRPLVPEVTHGRIASFFKS
fungus     ..SSAATSDDLQKILFSPDAIKKMAECDLGRHHWMRADNAISVRPLVPEVTHGRIASFFKS
          *****

Plants     GYDAGELCSKGYMSVPQVLCVIRIVSTDAEGSLRIYLDLGDKELSPIDQCVTLHNHD
fungus     GYDVGELCSKGYMSVPQVLCVIRIVSTDAEGSLRIYLDLGDKELSPIDQCVSLHNHD
          *****

Plants     LPALVSFQPTYDCPMETVGNRKRCFAVIERHGYIGYTGTTASVCSNMQARFSSKNNNYTHIAAGKTLV...
fungus     LPALVSFQPTYDCPMETVGNRKRCFAVIERHGYIGYTGTTASVCSNMQARFSSKNNNYTHIAAGKTLV...
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Figure S3. Alignment of partial nucleotide and amino acid sequences of CMV RNA1 (1a coding region) and CMV RNA3 (movement protein-coding region) derived from virus strains detected in plants and fungi.