

**CMV RNA1 (1a)**

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

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

plant      atgatgttcgatggtgctatgatgtttgacgaccaagggttaataccccaacttaactgt
fungus     atgatgttcgatggtgctatgatgtttgacgaccaagggttaataccccaacttaactgt
          *****

plant      cagtggagaaagatcaggagtgctttctctgaaactgaagcgtcacaccgctgactgag
fungus     cagtggagaaagatcaggagtgctttctctgaaactgaagcgtcacaccgctgactgag
          *****

plant      aaactcaattccacaatattctcccgcgtgctaaattcaagactatggtggctttcgat
fungus     aaactcaattccacaatattctcccgcgtgctaaattcaagactatggtggctttcgat
          *****

plant      ttatcaacgagctactatgtcttatgtacatgattgggagaataaaaaattttctc
fungus     ttatcaacgagctactatgtcttatgtacatgattgggagaataaaaaattttctc
          *****

plant      acggatcagacttattcataccgagggatgacctatggtattgagcgtgcttattcac
fungus     acggatcagacttattcataccgagggatgacctatggtattgagcgtgcttattcac
          *****

plant      gctggtattatgacgtataagatcattggtgacctgggagtgtcccaccgaactca
fungus     gctggtattatgacgtataagatcattggtgacctgggagtgtcccaccgaactca
          *****
                                TATGCCACCCGAACTCA
                                (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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AGGCATGGCTTCCAAGGTAC (CM-R3-119-F:5' primer)
Plants     ttccaaggtaccagcaggacttaaccaacagtcct
fungus     ttccaaggtaccagcaggacttaaccaacagtcct
          *****

Plants     cagcggctacgtctgacgaactcaaaagataattattagccctgagccatcaagaaaa
fungus     cagcggctacgtctgacgatctcAAAagataattattagccctgagccatTAagaaaa
          *****

Plants     tggctgtgagtgacctaggccggcatcattggatgctgctgataatgcatctcag
fungus     tggctactgagtgacctaggccggcatcattggatgctgctgataatgcatctcag
          *****

Plants     tcggccctcgttcccgaagtaaccacggctgattgcttctctttaaagctggat
fungus     tcggccctcgttcccgaagtaaccacggctgattgcttctctttaaagctggat
          *****

Plants     atgatgctgggaattgtgctctaaaggatacatgagcgtccctcaagtgttgctgctg
fungus     atgatgtgggaattgtgctcAAAaggatacatgagtcctcaagtgttatgctgctg
          *****

Plants     ttactcgaacagctctcactgatgctgaaggtctcttgagaatttactagctgattag
fungus     ttactcgaacagctctcactgatgctgaaggtctcttgagaatttactagctgattag
          *****

Plants     gcgataaggagctatctccatagataagcagtcgctcacattacataaccatgatcttc
fungus     gcgacaaggagttatctccatagatgggcaatgcttctgtaacataaccatgatcttc
          *****

Plants     ccgcttttagtctttccaaccgacgtatgattgcccattggagacagttgggaatcgga
fungus     ccgctttggtgctttccaaccgacgtatgattgcccattgggaacagttgggaatcgta
          *****

Plants     agcgggttttgcagttgctatcgaagacatggttatattgggtataccggcaccacag
fungus     agcgggttttgcgtgcttatcgaagacatggttatattgggtataccggcaccacag
          *****

Plants     ctgacgtgtgtagtaattggcaagcaaggttttcatccaagaataacaactacactcata
fungus     ctgacgtgtgtagtaattggcaagcaaggttttcatccaagaataacaactacactcata
          *****

Plants     tcgcagctgggaagactctagtactgccattcaacagattagctgagcaaacgaaaccc
fungus     tcgcagctgggaagactctagtactgcc-----
          *****
                                GCTGAGCAAACGAAACCGTCAG
                                (CM-R3-769-R :3' primer)
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CLUSTAL format alignment by MAFFT (v7.505)

```
Plants     ...SSAATSDELQKILFSPDAIKKMAEEDLGRHHMRADNAISVRPLVPEVTHGRIASFFKS
fungus     ..SSAATSDDLQKILFSPAIAKKMATECDLGRHHMRADNAISVRPLVPEVTHGRIASFFKS
          *****

Plants     GYDAGELCSKGYMSVPQVLCVAVTRIVSTDAEGSLRIVLADLDGKELSPIDKQCVTLHNHD
fungus     GYDVGELCSKGYMSVPQVLCVAVTRIVSTDAEGSLRIVLADLDGKELSPIDGQCVSLHNHD
          *****

Plants     LPALVSFQPTYDCPMTVGNRKRCAVVIERHGYIGYTGTTASVCSNMQARFSSKNNNYTHIAAGKTLV...
fungus     LPALVSFQPTYDCPMTVGNRKRCAVVIERHGYIGYTGTTASVCSNMQARFSSKNNNYTHIAAGKTLV...
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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.