* **Fungus 68**

**AAAAAAGGACYCGTTGGTGACMAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCTATACG**

**TTGCCTCGGCGGATCAGCCCGCGCCCCGTAAAAAGGGACGGCCCGCCCGAGGACCCCTAAACTCTGTTTTTAGTGGAACT**

**TCTGAGTAAAACAAACAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAA**

**TGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCG**

**GGCATGCCTGTTCGAGCGTCATTTCAACCCTCAAGCTCAGCTTGGTGTTGGGACTCGCGGTAACCCGCGTTCCCCAAATC**

**GATTGGCGGTCACGTCGAGCTTCCATAGCGTAGTAATCATACACCTCGTTACTGGTAATCGTCGCGGCCACGCCGTAAAA**

**CCCCAACTTCTGAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAGCCGGGAGGAA**

**Fusarium solani strain TA-5**

**Sequence ID:**[**MH612963.1**](https://www.ncbi.nlm.nih.gov/nucleotide/MH612963.1?report=genbank&log$=nuclalign&blast_rank=2&RID=CEW6PXSB01R)**Length: 560Number of Matches: 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Score | Expect | Identities | Gaps | Strand |
| 992 bits(537) | 0.0 | 548/554(99%) | 2/554(0%) | Plus/Plus |

* **Fungus 87**

**AMAAAMMAGTTTCCGWAGTGAACCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTCGTCCATTATTATCTATTTA**

**CTGTGAACTGTATTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGGTRGAGATGTTAACCGAGTCA**

**TAGTCAAGCTTAGGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAAT**

**CTATAAAACAACTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAA**

**TTGCATATTCAGTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTAT**

**CAAAACAAACCCTCTATCCARCATTTTTGTTGAATAGGAATACTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTT**

**GAAATGTACAAAGGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGC**

**TGGGGCCTCCCAAATAATACTYTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAAAG**

**CSSGRARGGAA**

**Mucor circinelloides strain CBS**

**Score Expect Identities Gaps Strand**

**1133 bits(613) 0.0 624/631(99%) 1/631(0%) Plus/Plus**

* **Fungus 82**

**CCGTTACGTGAACCTGCGGAGGWCATTAAAAATGCTGGGCTCTCTYWWKGGGGKYYCCMMYTTTTTTWYTCTGTGCMCCG**

**TTTAWTTTGGGGGACGAATTCMTTTTCKGCCSCCSCCCTGGGTTGGTTCGCTTTTTCCTTTGRSAGATTGTTCGGCCGCC**

**CCGAACMCATTGATACATTACTGACACTGACCYAAAASAGATTGTGAACATATATACAACTCTCGGCTCTCGATCTCTCG**

**ACTTTTWTATAKAAAAAAAAAACGCAMMATCACGAGATGTAKWGGGATCTGTCYATAKAGAAACWCATCATCTMTKTCTG**

**CGTCTTCTGCCTCTGGGGATTGTTGCGGGKGCACCTGTGTCACTATCAWTATAACTTCTCCCCAAAAAATATGGGRGGAA**

**AAARAACAACRGGAGCATGAGGAAAAGGAGGATCCCCCTTCCCCCCYTCTCRGGTTTMATATGAWCTGGTTTCTTTTTTT**

**MYGGSWAATTACCTTTTGKKAKATTCWCCTYTCAAAAAAAAAAKCCTCMSCTASAAAARCCCCCCTCWYTCWAAAAACAY**

**GAKSTRAWAYCAGGYGRGCTTACCCAWCTCACTTAWMTGAATAAATARRCGAAGGAGAAAAAC**

**Error**

* **F102**

**CGGTCGTGGACCTGCGGAAGGATCATTCATAATCAAGTGTTTTTATGGCACTTTCAAAAATCCATATCCACCTTGTGTGC**

**AATGTCATCTCTCTGGGGGCTGCCGGCTGTCAAAAGCCGTGTGGTCACCTTTGGGATTTATATCTACTCAGAACTTTAGT**

**GATTTTGTCTGAAACATATTATGAATACTTAATTCAAAATACAACTTTCAACAACGGATCTCTTGGCTCTCGCATCGATG**

**AAGAACGCAGCGAAATGCGATACGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCATATTGCGCTC**

**TCTGGTATTCCGGAGAGCATGCTTGTTTGAGTATCAGTAAACACCTCAACTTCCATATCTTTTTTGAAATGGGAGTTGGA**

**CTTGAGTGATCCCAACGCTTTTCCTTACCGAAAAGTGGCGGGTTACTTGAAATGCAGGTGCAGCTGGACTTTTCTCTGAG**

**CTATAAGCATATCTATTTAGTCTGCCTAAAAAACAGATTATTACCTTTGCTGCAGCTAACATAAAGGAGATTAGTTCTTG**

**TGCTGACTGATGCAGGATTCACAAAGACAGGCTTCGGCCGACTTTGTAAACTCGATCTCAAATCAAGTAAGACTACCCGC**

**TGAACTTAAGCATATCAAAARGCSGRRGGAA**

**Mortierella sp. strain JL75**

**Score Expect Identities Gaps Strand**

**1201 bits(650) 0.0 652/653(99%) 0/653(0%) Plus/Plus**

* **F22**

**AGCTTGGTGAMMAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCACTTGTTGCCTCGGCG**

**GATCAGCCCGCTCCCGGTAAAACGGGACGGCCCGCCAGAGGACCCCTAAACTCTGTTTCTATATGTAACTTCTGAGTAAA**

**ACCATAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGTA**

**ATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTGT**

**TCGAGCGTCATTTCAACCCTCAAGCACAGCTTGGTGTTGGGACTCGCGTTAATTCGCGTTCCCCAAATTGATTGGCGGTC**

**ACGTCGAGCTTCCATAGCGTAGTAGTAAAACCCTCGTTACTGGTAATCGTCGCGGCCACGCCGTTAAACCCCAACTTCTG**

**AATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGCCGGAGGAA**

**Fusarium lateritium strain GX8-2A**

**Score Expect Identities Gaps Strand**

**987 bits(534) 0.0 538/541(99%) 0/541(0%) Plus/Plus**

* **F20**

**CCAATGGTGAACMAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCACTTGTTGCCTCGGC**

**GGATCAGCCCGCTCCCGGTAAAACGGGACGGCCCGCCAGAGGACCCCTAAACTCTGTTTCTATATGTAACTTCTGAGTAA**

**AACCATAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGT**

**AATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTG**

**TTCGAGCGTCATTTCAACCCTCAAGCACAGCTTGGTGTTGGGACTCGCGTTAATTCGCGTTCCTCAAATTGATTGGCGGT**

**CACGTCGAGCTTCCATAGCGTAGTAGTAAAACCCTCGTTACTGGTAATCGTCGCGGCCACGCCGTTAAACCCCAACTTCT**

**GAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGCCSGGAGGAA**

**Fusarium oxysporum isolate AD42012**

**Score Expect Identities Gaps Strand**

**990 bits(536) 0.0 540/542(99%) 1/542(0%) Plus/Plus**

* **F33**

**CGCTATGTGACCCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTCGTCCATTATTATCTATTTACTGTGAACTGT**

**ATTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGGTGGRGATGTTAACCGAGTCATAGTCAAGCTT**

**AGGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTATAAAACAA**

**CTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCA**

**GTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAACC**

**CTCTATCCAACATTTTTGTTGAATAGGAATATTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAATGTACAA**

**AGGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGYTGGGGCCTCCC**

**AAATAATACTYTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAATAAGCCSGGAGGA**

**A**

**Mucor circinelloides f. circinelloides strain CNRMA9.1173**

**Score Expect Identities Gaps Strand**

**1142 bits(618) 0.0 630/637(99%) 2/637(0%) Plus/Plus**

* **F108**

**AAAAGGCTTYCGTAGTGACCTGCGGAGGATCATTCATAATCAAGTGTTTTTATGGCACTTTCAAAAATCCATATCCACCT**

**TGTGTGCAATGTCATCTCTCTGGGGGCTGCCGGCTGTCAAAAGCCGTGTGGTCACCTTTGGGATTTATATCTACTCAGAA**

**CTTTAGTGATTTTGTCTGAAACATATTATGAATACTTAATTCAAAATACAACTTTCAACAACGGATCTCTTGGCTCTCGC**

**ATCGATGAAGAACGCAGCGAAATGCGATACGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCATAT**

**TGCGCTCTCTGGTATTCCGGAGAGCATGCTTGTTTGAGTATCAGTAAACACCTCAACTTCCATATCTTTTTTGAAATGGG**

**AGTTGGACTTGAGTGATCCCAACGCTTTTCCTTACCGAAAAGTGGCGGGTTACTTGAAATGCAGGTGCAGCTGGACTTTT**

**CTCTGAGCTATAAGCATATCTATTTAGTCTGCCTAAAAAACAGATTATTACCTTTGCTGCAGCTAACATAAAGGAGATTA**

**GTTCTTGTGCTGACTGATGCAGGATTCACAAAGACAGGCTTCGGCCGACTTTGTAAACTCGATCTCAAATCAAGTAAGAC**

**TACCCGCTGAACTTAAGCATATCAAARGCSSGRRGGAA**

**Mortierella alpina strain SFCF20120803-49**

**Score Expect Identities Gaps Strand**

**1205 bits(652) 0.0 662/667(99%) 2/667(0%) Plus/Plus**

* **F97**

**CWMARGTTTYCCGTAGTGACCTGCGGAGGATCATTAAATAATCAATAATTTTGGCTYGTCCATTATTATCTATTTACTGT**

**GAACTGTATTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGGTGGRGATGTTAACCGAGTCATAGT**

**CAAGCTTAGGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTAT**

**AAAACAACTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGC**

**ATATTCAGTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAA**

**ACAAACCCTCTATCCAACATTTTTGTTGAATAGGAATATTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAA**

**TGTACAAAGGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGYTGGG**

**GCCTCCCAAATAATACTYTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAAAAGCCS**

**GGAGGAAA**

**Mucor circinelloides isolate OTU790**

**Score Expect Identities Gaps Strand**

**1134 bits(614) 0.0 621/626(99%) 1/626(0%) Plus/Plus**

* **F122**

**CAGGCTTCCGTAGTGAACCCTGCGGAGGATCATTCATAATCAAGTGTTTTTATGGCACTTTCAAAAATCCATATCCACCT**

**TGTGTGCAATGTCATCTCTCTGGGGGCTGCCGGCTGTCAAAAGCCGTGTGGTCACCTTTGGGATTTATATCTACTCAGAA**

**CTTTAGTGATTTTGTCTGAAACATATTATGAATACTTAATTCAAAATACAACTTTCAACAACGGATCTCTTGGCTCTCGC**

**ATCGATGAAGAACGCAGCGAAATGCGATACGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCATAT**

**TGCGCTCTCTGGTATTCCGGAGAGCATGCTTGTTTGAGTATCAGTAAACACCTCAACTTCCATATCTTTTTTGAAATGGG**

**AGTTGGACTTGAGTGATCCCAACGCTTTTCCTCACCGAAAAGTGGCGGGTTACTTGAAATGCAGGTGCAGCTGGACTTTT**

**CTCTGAGCTATAAGCATATCTATTTAGTCTGCCTAAAAAACAGATTATTACCTTTGCTGCAGCTAACATAAAGGAGATTA**

**GTTCTTGTGCTGACTGATGCAGGATTCACAAAGACAGGCTTCGGCCGACTTTGTAAACTCGATCTCAAATCAAGTAAGAC**

**TACCCGCTGAACTTAAGCATATCAAAGCCSGGRRRGGAA**

**Mortierella alpina isolate DSM100285\_M\_RLCS03**

**Score Expect Identities Gaps Strand**

**1205 bits(652) 0.0 662/666(99%) 3/666(0%) Plus/Plus**

* **F64**

**ARGGGTCTCGTTGGTGAMMAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCTTAATGTTG**

**CCTCGGCGGATCAGCCCGCGCCCCGTAAAACGGGACGGCCCGCCAGAGGACCCAAACTCTAATGTTTCTTATTGTAACTT**

**CTGAGTAAAACAAACAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAAT**

**GCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCTGGTATTCCGGCGG**

**GCATGCCTGTTCGAGCGTCATTTCAACCCTCAAGCCCCCGGGTTTGGTGTTGGGGATCGGCTCTGCCCTTCTGGGCGGTG**

**CCGCCCCCGAAATACATTGGCGGTCTCGCTGCAGCCTCCATTGCGTAGTAGCTAACACCTCGCAACTGGAACGCGGCGCG**

**GCCATGCCGTAAAACCCCAACTTCTGAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAA**

**GCSGGAGGAA**

**Fusarium sp. isolate FEV31A2**

**Score Expect Identities Gaps Strand**

**1029 bits(557) 0.0 562/565(99%) 1/565(0%) Plus/Plus**

* **F8**

**TGTTTGGGTGAMCAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCACTTGTTGCCTCGGC**

**GGATCAGCCCGCTCCCGGTAAAACGGGACGGCCCGCCAGAGGACCCCTAAACTCTGTTTCTATATGTAACTTCTGAGTAA**

**AACCATAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGT**

**AATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTG**

**TTCGAGCGTCATTTCAACCCTCAAGCACAGCTTGGTGTTGGGACTCGCGTTAATTCGCGTTCCTCAAATTGATTGGCGGT**

**CACGTCGAGCTTCCATAGCGTAGTAGTAAAACCCTCGTTACTGGTAATCGTCGCGGCCACGCCGTTAAACCCCAACTTCT**

**GAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGCSGGAGGAA**

**Fusarium oxysporum isolate AD42012**

**Score Expect Identities Gaps Strand**

**983 bits(532) 0.0 537/540(99%) 1/540(0%) Plus/Plus**

* **F93**

**CSATAAGTGAACCCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTYGTCCATTATTATCTATTTACTGTGAACTG**

**TATTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGGTGGRGATGTTAACCGAGTCATAGTCAAGCT**

**TAGGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTATAAAACA**

**ACTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACRTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTC**

**AGTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAAC**

**CCTCTATCCAACATTTTTGTTGAATARGAATATTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAATGTACA**

**AAGGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGCTGGGGCCTCC**

**CAAATAATACTYTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAATAARCGGAGGAA**

**CAA**

**Mucor circinelloides strain IA29 small**

**Score Expect Identities Gaps Strand**

**1142 bits(618) 0.0 629/637(99%) 1/637(0%) Plus/Plus**

* **F21**

**GARAAWMAGCTTCCCGTAGTGACCTGCGGAAGGATCATTAAATAAAACTTGAGGGGAAACTGGGCTTACGGGCTTGGTTT**

**TTCTCTTATTTTTTACCGTGAACTGTCTTATAGCATGGCGCTAGTAGAGATGCCTGAGCCGCCATACGGGGTAGGCGGCA**

**CAGGATGATTTTAATCGAAGCCATGGTCAAGCCGACTTTTTTTCAGCTTGGTACCCCAAAAATTAATTATTCTACCAAAT**

**GAATTCAGTATTAATATTGTAACATGGGCTCGCTGAAAGGTGGCCTATAAAACAACTTTTAACAACGGATCTCTTGGTTC**

**TCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCAGTGAATCATCGAGTCTTTGAACGCA**

**TCTTGCACCTGCTGGTATTCCAGCAGGTACGCCTGTTTCAGTATCAGAAACAACTCTTCCCYTAAGATTTTTTTGAATCR**

**KAGGGGGACATTGARGGTATCTGGCTTAKAARTAAAATCTCTAGCCCGGASACKCTTTAAATGACTTAMKGCCTGCMAGC**

**CAAAGWTTGATTGCGCCTGAWCTTTTTCTTAMTTTCRARCGAAMKCTCTTGCKAACTAKAACTTTATTATTGSCTTGSGG**

**GCCTCCCAAARAAAACTTTCAACWRCTTGATCTGAAATCRGGWGGGATTACCCGCTGAACTTAWRCATATCARTARRCSG**

**AAGGAAA**

**Actinomucor elegans strain CBS 111556**

**Score Expect Identities Gaps Strand**

**1131 bits(612) 0.0 643/672(96%) 0/672(0%) Plus/Plus**

* **F14**

**CGATTGGGTGAACMAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCAATGTGAACGTTACCAAACTGTTGCCT**

**CGGCGGGATCTCTGCCCCGGGTGCGTCGCAGCCCCGGACCAAGGCGCCCGCCGGAGGACCAACCTAAAACTCTTATTGTA**

**TACCCCCTCGCGGGTTTTTTTTATAATCTGAGCCTTCTCGGCGCCTCTCGTAGGCGTTTCGAAAATGAATCAAAACTTTC**

**AACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGA**

**ATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTGTCCGAGCGTCATTTCAACCCTCGA**

**ACCCCTCCGGGGGGTCGGCGTTGGGGATCGGCCCTCCCTTAGCGGGTGGCCGTCTCCGAAATACAGTGGCGGTCTCGCCG**

**CAGCCTCTCCTGCGCAGTAGTTTGCACACTCGCATCGGGAGCGCGGCGCGTCCACAGCCGTTAAACACCCAACTTCTGAA**

**ATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAGCCSGGAGGAAA**

**Trichoderma harzianum isolate pen8**

**Score Expect Identities Gaps Strand**

**1122 bits(607) 0.0 613/617(99%) 0/617(0%) Plus/Plus**

* **F45**

**AGGTGTCGTTGGTGACCAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCTTTATGTTGCC**

**TCGGCGGATCAGCCCGTTCCTCGGAACGGCCCGCCGCAGGACCCTAAACTCTGTTTTTAGTGGAACTTCTGAGTAAAAAA**

**ACAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGTAATG**

**TGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTGTTCG**

**AGCGTCATTTCAACCCTCAAGCCCAGCTTGGTGTTGGGAGCTGTCGTCTGACACTCCCCAAATACATTGGCGGTCACGTC**

**GAGCTTCCATAGCGTAGTAATTTACACATCGTTACTGGTAATCGTCGCGGCCACGCCGTTAAACCCCAACTTCTGAATGT**

**TGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAGCSGGAGGAA**

**Uncultured Fusarium clone D029ITS**

**Score Expect Identities Gaps Strand**

**970 bits(525) 0.0 535/540(99%) 2/540(0%) Plus/Plus**

* **F91**

**CGTTCGGTGAMCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTTGTCCRTTATTATCTATTTACTGKGAAATGTA**

**TTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAARGATAGGCGGTGGGGATGCTAACCGAGTCATAATCAAGCTTA**

**SGCTTGGTATCCTATTATTATTTACCAAAARAATTCAGAATTAATATTGTAACATARACCTAAAAAATCTATAAAACAAC**

**TTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTARCARAGTGCGATAACTAATGTGAATTGCATATTCAG**

**TGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAACCC**

**TCTATCCAACATTTTGTTGAATARGAATACTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAATGTACAAAG**

**GCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAAMWGTGCTGGGGCCTCCCAA**

**ATAATACTTTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAATAAGCCGGAGGAA**

**Mucor sp. isolate F8-2018**

**Score Expect Identities Gaps Strand**

**1114 bits(603) 0.0 620/634(98%) 2/634(0%) Plus/Plus**

* **F15**

**CTGATTGGTGACCMGCGGAGGGATCATTACTGAGTACTACACTCTCTACCCTTTGTGAACTATTATACCTGTTGCTTCGG**

**CGGCGCCCGCAAGGGTGCCCGCCGGTCTCATCAGAATCTCTGTTTTCGAACCCGACGATACTTCTGAGTGTTCTTAGCGA**

**ACTGTCAAAACTTTTAACAACGGATCTCTTGGCTCCAGCATCGATGAAGAACGCAGCGAAACGCGATATGTAATGTGAAT**

**TGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATGGCGCCTTCCAGTATCCTGGGAGGCATGCCTGTCCGAGCGT**

**CGTTTCAACCCTCGAGCCCCTGTGGCCCGGCGTTGGGGATCTGCCACGGCAGGCCCCTAAAACCAGTGGCGGACCCGAAG**

**GGCCCTCTCCTTTGCGCAGTAGCATTCGCCTCGCATTGGGAGTCCTCGGCGTCCTGCCTCTAAACCCCCCACAAGTCCGC**

**TTCGGCGGCACCAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAGGCSGGAGGAA**

**Fusarium oxysporum isolate G549\_ITS\_E08\_028.ab1**

**Score Expect Identities Gaps Strand**

**992 bits(537) 0.0 538/539(99%) 0/539(0%) Plus/Plus**

**OR**

**Uncultured Plectosphaerella**

**Score Expect Identities Gaps Strand**

**994 bits(538) 0.0 548/553(99%) 2/553(0%) Plus/Plus**

* **F13**

**ARGGTCACGTTGGTGAACAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCTTTATGTTGC**

**CTCGGCGGATCAGCCCGCGCCCCGTAAAACGGGACGGCCCGCCGCAGGAACCACAAAACTCTGATTTTAGTGTAACTTCT**

**GAGTCTAAAAAACAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGC**

**GATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGC**

**ATGCCTGTTCGAGCGTCATTTCAACCCTCAAGCCCCCGGGTTTGGTGTTGGGGATCGGGCTGTACTCCAGCCCGGCCCCG**

**AAATCTAGTGGCGGTCTCGCTGCAGCCTCCATTGCGTAGTAGCTAACACCTCGCAACTGGAACGCGGCGCGGCCAAGCCG**

**TTAAACCCCCAACTTCTGAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAGCCSGGAGG**

**AA**

**Fusarium oxysporum isolate EP001**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Score** | **Expect** | **Identities** | **Gaps** | **Strand** |
| **1011 bits(547)** | **0.0** | **553/556(99%)** | **1/556(0%)** | **Plus/Plus** |

* **F72**

**ASGCTCGGTGACCTGCGGAAGGATCATTAAATAATCAATAATCTTGGCTTGTCCATTATTATCTATTTACTGTGAACTGT**

**ATTATTATTTGACGTTTGAGGGATGTTCCAATGTTATAAGGATAGACATTGGAGATGTTAACCGAGTCATAATCAGGTTT**

**AGGCCTGGTATCCTATTATTATTTACCAAATGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTATAAAACAA**

**CTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCA**

**GTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAACC**

**CTCTATCCAACTTTTGTTGTATAGGATTATTGGGGGCCTCTCGATCTGTATAGATCTTGAAACCCTTGAAATTTACTAAG**

**GCCTGAACTTGTTTAATGCCTGAACTTTTTTTTAATATAAAGGAAAGCTCTTGTAATTGACTTTGATGGGGCCTCCCAAA**

**TAAATCTTTTTTAAATTTGATCTGAAATCAGGTGGGATTACCCGCTGAACTTAAGCATATCAAAAGCCGGGAGGAACA**

**Uncultured fungus clone 12-154**

**Score Expect Identities Gaps Strand**

**1142 bits(618) 0.0 628/632(99%) 4/632(0%) Plus/Plus**

**OR**

**Mucor sp. isolate E20376\_ITS**

**Score Expect Identities Gaps Strand**

**1140 bits(617) 0.0 627/631(99%) 4/631(0%) Plus/Plus**

* **F69**

**ACSCYAAGTGAAMCCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTCGTCCATTATTATCTATTTACTGTGAACT**

**GTATTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGGTRGAGATGTTAACCGAGTCATAGTCAAGC**

**TTAGGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTATAAAAC**

**AACTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATT**

**CAGTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAA**

**CCCTCTATCCARCATTTTTGTTGAATAGGAATAYTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAATGTAC**

**AAAGGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGCTGGGGCCTC**

**CCAAATAATACTYTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAATAAGCCSGGAG**

**GAA**

**Mucor circinelloides f. circinelloides**

**Score Expect Identities Gaps Strand**

**1138 bits(616) 0.0 628/635(99%) 3/635(0%) Plus/Plus**

* **F84**

**AGCTARGGTGACCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTCGTCCATTATTATCTATTTACTGTGAACTGT**

**ATTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGGTRGRGATGTTAACCGAGTCATAGTCAAGCTT**

**AGGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTATAAAACAA**

**CTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCA**

**GTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAACC**

**CTCTATCCAACATTTTTGTTGAATAGGAATATTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAATGTACAA**

**AGGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGCTGGGGCCTCCC**

**AAATAATACTCTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAAAGCCSGRAGGAA**

**Mucor circinelloides strain CBS 106.10**

**Score Expect Identities Gaps Strand**

**1134 bits(614) 0.0 619/622(99%) 1/622(0%) Plus/Plus**

* **F94**

**CCGTACGTGAACTGCGGAAGGATCATTCATAATCAAGTGTTTTTATGGCACTTTCAAAAATCCATATCCACCTTGTGTGC**

**AATGTCATCTCACTGGGGGCCAACGGGTGTAAAAATCCGTTTGGTCGCCTTTGGGATTTATATCTACTCAGAACTTTAGT**

**GATTTTGTCTGAAAACATATTATGAATACTTAATTCAAAATACAACTTTCAACAACGGATCTCTTGGCTCTCGCATCGAT**

**GAAGAACGCAGCGAAATGCGATACGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCATATTGCGCT**

**CTCTGGTATTCCGGAGAGCATGCTTGTTTGAGTATCAGTAAACACCTCAACTCCTCTCTTCTCTTTTGAAAATGGGAGTT**

**GGACTTGAGTAATCCCAACGCTTTTCTCACCGAACAGTGGCGGGTTACTTGAAATGCAGGTGCAGCTGGACTATTTCTCT**

**GAGCTAAAAGCATATCTATTTAGTCTGCCTAAAAAACAGATTATTACCTTTGCTGCAGCTAACATAAAGGAGATTAGTTC**

**TTGTGCTGACTGATGCAGGATTCACAGAGACGGCTTTGGCTGGCTTTGTAAACTCGATCTCAAATCAAGTAAGACTACCC**

**GCTGAACTTAAGCATATCAAARCCSGGRRGGAAA**

**Uncultured Mortierella clone SFK02**

**Score Expect Identities Gaps Strand**

**1208 bits(654) 0.0 659/661(99%) 1/661(0%) Plus/Plus**

* **F55**

**CGATTGGTGAACCAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCTATACGTTGCCTCGG**

**CGGATCAGCCCGCGCCCCGTAAAAAGGGACGGCCCGCCCGAGGACCCCTAAACTCTGTTTTTAGTGGAACTTCTGAGTAA**

**AACAAACAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAG**

**TAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCT**

**GTTCGAGCGTCATTTCAACCCTCAAGCTCAGCTTGGTGTTGGGACTCGCGGTAACCCGCGTTCCCCAAATCGATTGGCGG**

**TCACGTCGAGCTTCCATAGCGTAGTAATCATACACCTCGTTACTGGTAATCGTCGCGGCCACGCCGTAAAACCCCAACTT**

**CTGAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGCCGGAGGAA**

**Fusarium equiseti strain GFR10**

**Score Expect Identities Gaps Strand**

**1002 bits(542) 0.0 542/542(100%) 0/542(0%) Plus/Plus**

* **F79**

**CCGTATGTGACCTGCGGAGGATCATTCATAATCAAGTGTTTTTATGGCACTTTAAAAATCCATATCCACCTTGTGTGCAA**

**TGTCATCTCACTGGAAGGTCACGGCTGTAAAAATCCGGCGGCCAACCTTTGGGATTTATATCTACTCAGAACTTTAGTGA**

**TTTTGTCTGAAACATATTATGAATAACTTAATTCAAAATACAACTTTCAACAACGGATCTCTTGGCTCTCGCATCGATGA**

**AGAACGCAGCGAAATGCGATACGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCATATTGCGCTCT**

**CTGGTATTCCGGAGAGCATGCTTGTTTGAGTATCAGTAAACACCTCAACTCCCTTTTCTTTTTTGAAATTGGAGCTGGAC**

**TTGAGTGATCCCAACGCTTTCTTCCAAGAAAGTGGCGGGTTGCTTGAAATGCAGGTGCAGCTGAACTTTTCTCTGAGCTA**

**TAAGCATATCTATTTAGTCTGCCTAAAAAACAGATTATTACCTTTGCTGCAGCTAACATAAAGGAGACTAGTTCTTGTGC**

**TGACTGATGCAGGATTCACAGAGACAGCTTCGGCTGACTTTGTAAACTCGATCTCAAATCAAGTAAGACTACCCGCTGAA**

**CTTAAGCATATCAAAGCCSGGRRGGAA**

**Uncultured Mortierella**

**Score Expect Identities Gaps Strand**

**1194 bits(646) 0.0 653/656(99%) 2/656(0%) Plus/Plus**

* **F61**

**AATGGACCGTTGGTGACCAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCACTTGTTGCC**

**TCGGCGGATCAGCCCGCTCCCGGTAAAACGGGACGGCCCGCCAGAGGACCCCTAAACTCTGTTTCTATATGTAACTTCTG**

**AGTAAAACCATAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGA**

**TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCAT**

**GCCTGTTCGAGCGTCATTTCAACCCTCAAGCACAGCTTGGTGTTGGGACTCGCGTTAATTCGCGTTCCTCAAATTGATTG**

**GCGGTCACGTCGAGCTTCCATAGCGTAGTAGTAAAACCCTCGTTACTGGTAATCGTCGCGGCCACGCCGTTAAACCCCAA**

**CTTCTGAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGCGGAGGAA**

**Fusarium oxysporum isolate DSM100409\_FOX**

**Score Expect Identities Gaps Strand**

**998 bits(540) 0.0 543/544(99%) 1/544(0%) Plus/Plus**

* **F121**

**AGTWAGGTGAAMCTGCGGAAGGATCATTCATAATCAAGTGTTTTTATGGCACTTTAAAAATCCATATCCACCTTGTGTGC**

**AATGTCATCTCACTGGAAGGTCACGGCTGTAAAAATCCGGCGGCCAACCTTTGGGATTTATATCTACTCAGAACTTTAGT**

**GATTTTGTCTGAAACATATTATGAATAACTTAATTCAAAATACAACTTTCAACAACGGATCTCTTGGCTCTCGCATCGAT**

**GAAGAACGCAGCGAAATGCGATACGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCATATTGCGCT**

**CTCTGGTATTCCGGAGAGCATGCTTGTTTGAGTATCAGTAAACACCTCAACTCCCTTTTCTTTTTTTGAAATTGGAGCTG**

**GACTTGAGTGATCCCAACGCTTTCTTCCAAGAAAGTGGCGGGTTGCTTGAAATGCAGGTGCAGCTGAACTTTTCTCTGAG**

**CTATAAGCATATCTATTTAGTCTGCCTAAAAAACAGATTATTACCTTTGCTGCAGCTAACATAAAGGAGACTAGTTCTTG**

**TGCTGACTGATGCAGGATTCACAGAGACAGCTTCGGCTGACTTTGTAAACTCGATCTCAAATCAAGTAAGACTACCCGCT**

**GAACTTAAGCATATCAATAAGGCGGAGGAA**

**Mortierella alpina isolate DSM100289\_DF19\_RLCS11**

**Score Expect Identities Gaps Strand**

**1214 bits(657) 0.0 663/666(99%) 2/666(0%) Plus/Plus**

* **F83**

**CAAKGATTCCGTAGTGAACCTGCGGAAGGATCATTAAATAAAACTTGAGGGGAAACTGGGCTTACGGGCTTGGTTTTTCT**

**CTTATTTTTTACCGTGAACTGTCTTATAGCATGGCGCTAGTAGAGATGCCTGAGCCGCCATACGGGGTAGGCGGCACAGG**

**ATGATTTTAATCGAAGCCATGGTCAAGCCGACTTTTTTTCAGCTTGGTACCCCAAAAATTAATTATTCTACCAAATGAAT**

**TCAGTATTAATATTGTAACATGGGCTCGCTGAAAGGTGGCCTATAAAACAACTTTTAACAACGGATCTCTTGGTTCTCGC**

**ATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCAGTGAATCATCGAGTCTTTGAACGCATCTT**

**GCACCTGCTGGTATTCCAGCAGGTACGCCTGTTTCAGTATCAGAAACAACTCTTCCCTTAAGATTTTTTTCTTAAGGGGA**

**CATTGAGGGTATCTGGCTTAGAAGTAAAATCTCTAGCCCGGAGACGCTTTAAATGACTTAAGGCCTGCAAGCCAAAGTTT**

**GATTGCGCCTGAACTTTTTCTTAATTTCAAGCGAAAGCTCTTGCGAACTAGAACTTTATTATTGCCTTGGGGGCCTCCCA**

**AAGAAAACATTCAACAACTTGATCTGAAATCAGGTGGGATTACCCGCTGAACTTAAGCATATCAAAGCCSGRARGGAACA**

**T**

**Actinomucor elegans strain UAMH 10931**

**Score Expect Identities Gaps Strand**

**1279 bits(692) 0.0 697/699(99%) 1/699(0%) Plus/Plus**

* FsK1

**CRRWTKGGTGAACCAGCGGAGGGATCATTACCGAGTTATACAACTCATCAACCCTGTGAACATACCTATAACGTTGCCTC**

**GGCGGGAACAGACGGCCCCGTAACACGGGCCGCCCCCGCCAGAGGACCCCCTAACTCTGTTTCTATAATGTTTCTTCTGA**

**GTAAACAAGCAAATAAATTAAAACTTTCAACAACGGATCTCTTGGCTCTGGCATCGATGAAGAACGCAGCGAAATGCGAT**

**AAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATG**

**CCTGTTCGAGCGTCATTACAACCCTCAGGCCCCCGGGCCTGGCGTTGGGGATCGGCGGAAGCCCCCTGCGGGCACAACGC**

**CGTCCCCCAAATACAGTGGCGGTCCCGCCGCAGCTTCCATTGCGTAGTAGCTAACACCTCGCAACTGGAGAGCGGCGCGG**

**CCACGCCGTAAAACACCCAACTTCTGAATGTTGACCTCGAATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAA**

**GCGGAGGAA**

**Fusarium solani strain CLR36 non-pathogenic**

**Score Expect Identities Gaps Strand**

**1040 bits(563) 0.0 563/563(100%) 0/563(0%) Plus/Plus**

* **F76**

**CCRKWMMGATTCCGTAGTGACCTGCGGAAGGATCATTAAATAAAACTTGAGGGGAAACTGRGCTTACGGGCTTGGTTTTT**

**CTCTTATTTTTTACCGTGAACTGTCTTATAGCATGGCGCTAGTAGAGATGCCTGAGCCGCCATACGGGGTAGGCGGCACA**

**GGATGATTTTAATCGAAGCCATGGTCAAGCCGACTTTTTTTCAGCTTGGTACCCCAAAAATTAATTATTCTACCAAATGA**

**ATTCAGTATTAATATTGTAACATGGGCTCGCTGAAAGGTGGCCTATAAAACAACTTTTAACAACGGATCTCTTGGTTCTC**

**GCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCAGTGAATCATCGAGTCTTTGAACGCATC**

**TTGCACCTGCTGGTATTCCAGCAGGTACGCCTGTTTCAGTATCAGAAACAACTCTTCCCTTAAGATTTTTTTCTTAAGGG**

**GACATTGAGGGTATCTGGCTTAGAAGTAAAATCTCTAGCCCGGAGACGCTTTAAATGACTTAAGGCCTGCAAGCCAAAGT**

**TTGATTGCGCCTGAACTTTTTCTTAATTTCAAGCGAAAGCTCTTGCGAACTAGAACTTTATTATTGCCTTGGGGGCCTCC**

**CAAAGAAAACATTCAACAACTTGATCTGAAATCAGGTGGGATTACCCGCTGAACTTAAGCATATCATARCSSSGRRAGGA**

**A**

**Actinomucor elegans var. meitauzae strain Ac-3**

**Score Expect Identities Gaps Strand**

**1269 bits(687) 0.0 695/699(99%) 2/699(0%) Plus/Plus**

* **F62**

**CGATTGGGTGACCAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCACTTGTTGCCTCGGC**

**GGATCAGCCCGCTCCCGGTAAAACGGGACGGCCCGCCAGAGGACCCCTAAACTCTGTTTCTATATGTAACTTCTGAGTAA**

**AACCATAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGT**

**AATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTG**

**TTCGAGCGTCATTTCAACCCTCAAGCACAGCTTGGTGTTGGGACTCGCGTTAATTCGCGTTCCTCAAATTGATTGGCGGT**

**CACGTCGAGCTTCCATAGCGTAGTAGTAAAACCCTCGTTACTGGTAATCGTCGCGGCCACGCCGTTAAACCCCAACTTCT**

**GAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGGCSGGAGGAA**

**Fusarium oxysporum isolate TA\_pink1**

**Score Expect Identities Gaps Strand**

**987 bits(534) 0.0 537/539(99%) 0/539(0%) Plus/Plus**

* **F25**

**CGTTAAGTGACCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTCGTCCATTATTATCTATTTACTGTGAACTGTA**

**TTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGGTGGRGATGTTAACCGAGTCATAGTCAAGCTTA**

**GGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTATAAAACAAC**

**TTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCAG**

**TGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAACCC**

**TCTATCCAACATTTTTGTTGAATAGGAATATTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAATGTACAAA**

**GGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGYTGGGGCCTCCCA**

**AATAATACTYTTTTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCAAAAGCSGGAGGAAA**

**Mucor circinelloides f. circinelloides strain CNRMA9.1173**

**Score Expect Identities Gaps Strand**

**1138 bits(616) 0.0 629/636(99%) 3/636(0%) Plus/Plus**

* **F86**

**TCGCTACGTGACCTGCGGAAGGATCATTAAATAATCAATAATTTTGGCTTGTCCATTATTATCTATTTACTGTGAAMTGT**

**ATTATTACTTGACGCTTGAGGGATGCTCCACTGCTATAAGGATAGGCGRTGGRGATGCTAACCGAGTCATARTCAAGCTT**

**AGGCTTGGTATCCTATTATTATTTACCAAAAGAATTCAGAATTAATATTGTAACATAGACCTAAAAAATCTATAAAACAA**

**CTTTTAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGCAAAGTGCGATAACTARTGTGAATTGCATATTCA**

**GTGAATCATCGAGTCTTTGAACGCAACTTGCGCTCATTGGTATTCCAATGAGCACGCCTGTTTCAGTATCAAAACAAACC**

**CTCTATCCAACATTTTGTTGAATAGGAATACTGAGAGTCTCTTGATCTATTCTGATCTCGAACCTCTTGAAATGTACAAA**

**GGCCTGATCTTGTTTGAATGCCTGAACTTTTTTTTAATATAAAGAGAAGCTCTTGCGGTAAACTGTGCTGGGGCCTCCCA**

**AATAATACTTTTTTTAAATTTRATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAGCATATCATAAGCSGRAGRAA**

**Mucor circinelloides isolate F2-3-5**

**Score Expect Identities Gaps Strand**

**1123 bits(608) 0.0 616/623(99%) 0/623(0%) Plus/Plus**

* **F41**

**CCGCTTGGGTGACAGCGGAGGGATCATTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCACTTGTTGCCTCGGC**

**GGATCAGCCCGCTCCCGGTAAAACGGGACGGCCCGCCAGAGGACCCCTAAACTCTGTTTCTATATGTAACTTCTGAGTAA**

**AACCATAAATAAATCAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGT**

**AATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTG**

**TTCGAGCGTCATTTCAACCCTCAAGCACAGCTTGGTGTTGGGACTCGCGTTAATTCGCGTTCCCCAAATTGATTGGCGGT**

**CACGTCGAGCTTCCATAGCGTAGTAGTAAAACCCTCGTTACTGGTAATCGTCGCGGCCACGCCGTTAAACCCCAACTTCT**

**GAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGGCCGGAGGAA**

**Fusarium oxysporum**

**Score Expect Identities Gaps Strand**

**983 bits(532) 0.0 537/539(99%) 1/539(0%) Plus/Plus**

* FsK2

**TCTTGGTGACCAGCGGAGGGATCATTACCGAGTTATACAACTCATCAACCCTGTGAACATACCTATAACGTTGCCTCGGC**

**GGGAACAGACGGCCCCGTAACACGGGCCGCCCCCGCCAGAGGACCCCCTAACTCTGTTTCTATAATGTTTCTTCTGAGTA**

**AACAAGCAAATAAATTAAAACTTTCAACAACGGATCTCTTGGCTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAG**

**TAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCT**

**GTTCGAGCGTCATTACAACCCTCAGGCCCCCGGGCCTGGCGTTGGGGATCGGCGGAAGCCCCCTGCGGGCACAACGCCGT**

**CCCCCAAATACAGTGGCGGTCCCGCCGCAGCTTCCATTGCGTAGTAGCTAACACCTCGCAACTGGAGAGCGGCGCGGCCA**

**CGCCGTAAAACACCCAACTTCTGAATGTTGACCTCGAATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAATCSG**

**GAGGAAA**

**Fusarium solani strain GP**

**Score Expect Identities Gaps Strand**

**1024 bits(554) 0.0 562/566(99%) 2/566(0%) Plus/Plus**