

**Supplementary Table S1.**Primers used for amplification of *Vitis amurens* cDNAs in real-time PCRs

cDNA (GeneBank)	Primers, 5'-3'
Primers for real-time PCR, 5'-3'	
<i>VaPAL1</i> (EU659859)	5'CAG GAC TTC ACC TCA ATG G-3' 5'GGG TTA TCA TTA ACG GAG TTG A-3'
<i>VaPAL2</i> (EU659860)	5'AAG GAC TTC CCC TCA ATG G-3' 5'GGG TTA TCG TTC ACT GAG TTT A-3'
<i>VaPAL3</i> (EU659861)	5'TCC GAA CAT CTC CCC AGT-3' 5'ATC AAG GGA TTG TCG TTT ACC-3'
<i>VaPAL4</i> (GQ443744)	5'AGC AAG ATC GGT ATG CTC T-3' 5'TCT ATG GAC TTC GTT GAT GT-3'
<i>VaPAL5</i> (GQ443745)	5'GTT GAT GAA GCC TAA ACA AG-3' 5'CCA TGC GAA TGA CCT CAA T-3'
<i>VaSTS1</i> (EU659862)	5'CCA ACC AAA GTC CAA GAT CA 5'CCT TCT AAC CGA TGT TTC AAG A
<i>VaSTS2</i> (EU659863)	5'CGG TGC GGA TTA CAA ACT C 5'CAC CCT TGA TGG TAC AAC AT
<i>VaSTS3</i> (EU659864)	S1: GTC AGC CTA AAT CGA AGA TCA C A1: TCT TCT AAC AGA TGG TTC GAG G
<i>VaSTS4</i> (EU659865)	S1: ACA ACC TCT GGT GTA GAA AT A1:CTG ACC GAT GTT TCA AGG C
<i>VaSTS5</i> (EU659866)	S1: CCT CGA ACC ATC TGT TAG AAG A A1: TCT CCG CAA GAT CCT TAG C
<i>VaSTS6</i> (EU659867)	S1: CCT CAG GTG TAG AAA TGC C A1: CAT CAC TCT TCT AAC AGA TGG
<i>VaSTS7</i> (EU659868)	S1: GCA GCA CTG AAG GCA CTT AA A1: ATT TCT ACA CCT GAC GTT GT
<i>VaSTS8</i> (GQ443746)	S1: GCC TCG AAC CAT CTG TCA A1: AAG ATC CTT AGC TGT TCG A
<i>VaSTS9</i> (GU266256)	S1: GGC AGC CTA AGT CCA AGA TTA A1: AGT CTG CAC CGG GCA TTT C
<i>VaSTS10</i> (JQ780328)	S1: GCA GGA GCA CGG GTT CT A1: AGT CCA AAG CAA TTT CAG AA
<i>Va-actin1</i> (DQ517935)	S1: GTA TTG TGC TGG ATT CTG GTG AT A1: AGC AAG GTC AAG ACG AAG GAT AG
<i>VaGapdh</i> (XM_002263109)	S1: CAC TGA AGA TGA TGT TGT TTC C A1: GCT ATT CCA GCC TTG GCA T

**Characteristics of bacteria and fungi based on 16S rRNA gene (bacteria) or internal transcribed spacers ITS1 (fungi) sequences used in experiments isolated from *Vitis amurensis* grape microbiome.**

The resulting nucleotide sequences were collected using the Staden Package program. The percent identity of the collected nucleotide sequences is determined using a specialized program NCBI BLAST (<http://blast.ncbi.nlm.nih.gov>; May 11, 2021), using the Nucleotide Blast (nucleotide - nucleotide BLAST) algorithm.

**1. *Agrobacterium* sp., MZ424738 (s1860-1,7,13,19), 1443 bp.**

AGAGTTTGATCCTGGCTCAGAACGAACGCTGGCGGCAGGCTTAACACATGCAAGTCGAACGCATCGCAAGATGA  
GTGGCAGACGGGTGAGTAACGCGTGGGAATCTACCCATCTCTGCGGAATAGCTCTGGGAACTGGAATTAATACC  
GCATACGCCCTACGGGGGAAAGATTTATCGGGGATGGATGAGCCCGCGTTGGATTAGCTAGTTGGTGGGGTAAA  
GGCCTACCAAGGCGACGATCCATAGCTGGTCTGAGAGGATGATCAGCCACATTGGGACTGAGACACGGCCAAA  
CTCCTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGGCGCAAGCCTGATCCAGCCATGCCGCGTGAGTGAT  
GAAGGCCTTAGGGTTGTAAAGCTCTTTCACCGGTGAAGATAATGACGGTAACCGGAGAAGAAGCCCCGGCTAACT  
TCGTGCCAGCAGCCGCGGTAATACGAAGGGGGCTAGCGTTGTTTCGGAATTACTGGGCGTAAAGCGCACGTAGGC  
GGATATTTAAGTCAGGGGTGAAATCCCGCAGCTCAACTGCGGAAGTGCCTTTGATACTGGGTATCTTGAGTATGG  
AAGAGGTAAGTGGAATTGCGAGTGTAGAGGTGAAATTCGTAGATATTCGCAGGAACACCAAGTGGCGAAGGCGGC  
TTACTGGTCCATTACTGACGCTGAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGC  
CGTAAACGATGAATGTTAGCCGTCGGGCAGTTGACTGTTTCGGTGGCGCAGCTAACGCATTAAACATTCCGCCTGG  
GGAGTACGGTCGCAAGATTAAGAACTCAAAGGAATTGACGGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAAT  
TCGAAGCAACGCGCAGAACCTTACCAGCTCTTGACATTTCGGGGTTTGGGCAGTGGAGACATTGTCCTTCAGTTAG  
GCTGGCCCCAGAACAGGTGCTGCATGGCTGTCGTGAGCTCGTGTCTGAGATGTTGGGTTAAGTCCCGCAACGAG  
CGCAACCCCTCGCCCTTAGTTGCCAGCATTTGGTTGGGCACTCTAAGGGGACTGCCGGTGATAAGCCGAGAGGAAG  
GTGGGGATGACGTCAAGTCCTCATGGCCCTTACGGGGCTGGGCTACACACGTGCTACAATGGTGGTGACAGTGGG  
CAGCGAGACAGCGATGTCGAGCTAATCTCCAAAAGCCATCTCAGTTCGGATTGCACTCTGCAACTCGAGTGCATGA  
AGTTGGAATCGCTAGTAATCGCAGATCAGCATGCTGCGGTGAATACGTTCCCGGGCCTTGACACACCGCCCGTCA  
CACCATGGGAGTTGGTTTTACCCGAAGGCGCTGCGCTAACCGCAAGGGGGCAGGCGACCACGGTAGGGTCAGCG  
ACTGGGGTGAAGTCGTAACAAGGTA

***Agrobacterium rubi*, MN752429.1, 1443bp, Percent identity 99.17%**

AGAGTTTGATCATGGCTCAGAACGAACGCTGGCGGCAGGCTTAACACATGCAAGTCGAACGCCCCGCAAGGGGA  
GTGGCAGACGGGTGAGTAACGCGTGGGAATCTACCCAACCTGCGGAATAGCTCTGGGAACTGGAATTAATAC  
CGCATACGCCCTACGGGGGAAAGATTTATCGGGGATGGATGAGCCCGCGTTGGATTAGCTAGTTGGTGGGGTAA  
AGGCCTACCAAGGCGACGATCCATAGCTGGTCTGAGAGGATGATCAGCCACATTGGGACTGAGACACGGCCAA  
ACTCCTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGGCGCAAGCCTGATCCAGCCATGCCGCGTGAGTGA  
TGAAGGCCTTAGGGTTGTAAAGCTCTTTCACCGGTGAAGATAATGACGGTAACCGGAGAAGAAGCCCCGGCTAAC  
TTCGTGCCAGCAGCCGCGGTAATACGAAGGGGGCTAGCGTTGTTTCGGAATTACTGGGCGTAAAGCGCACGTAGG  
CGGATATTTAAGTCAGGGGTGAAATCCAGAGCTCAACTCTGGAAGTGCCTTTGATACTGGGTATCTTGAGTATGG  
AAGAGGTAAGTGGAATTGCGAGTGTAGAGGTGAAATTCGTAGATATTCGCAGGAACACCAAGTGGCGAAGGCGGC  
TTACTGGTCCATTACTGACGCTGAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGC  
CGTAAACGATGAATGTTAGCCGTCGGGCAGTTGACTGTTTCGGTGGCGCAGCTAACGCATTAAACATTCCGCCTGG  
GGAGTACGGTCGCAAGATTAAGAACTCAAAGGAATTGACGGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAAT  
TCGAAGCAACGCGCAGAACCTTACCAGCTCTTGACATTTCGGGGTTTGGGCAGTGGAGACATTGTCCTTCAGTTAG  
GCTGGCCCCAGAACAGGTGCTGCATGGCTGTCGTGAGCTCGTGTCTGAGATGTTGGGTTAAGTCCCGCAACGAG  
CGCAACCCCTCGCCCTTAGTTGCCAGCATTTAGTTGGGCACTCTAAGGGGACTGCCGGTGATAAGCCGAGAGGAAG  
GTGGGGATGACGTCAAGTCCTCATGGCCCTTACGGGGCTGGGCTACACACGTGCTACAATGGTGGTGACAGTGGG  
CAGCGAGACAGCGATGTCGAGCTAATCTCCAAAAGCCATCTCAGTTCGGATTGCACTCTGCAACTCGAGTGCATGA  
AGTTGGAATCGCTAGTAATCGCAGATCAGCATGCTGCGGTGAATACGTTCCCGGGCCTTGACACACCGCCCGTCA  
CACCATGGGAGTTGGTTTTACCCGAAGGCGCTGCGCTAACCGCAAGGGGGCAGGCGACCACGGTAGGGTCAGCG  
ACTGGGGTGAAGTCGTAACAAGGTA

**2. *Bacillus* sp., MZ424739 (s1860-2,8,14,20), 1489bp.**

CATGGGCGGCGTGCTATACATGCAGTCGAGCGAATGGATTGAGAGCTTGCTCTCAAGAAGTTAGCGGCGGACGG  
GTGAGTAACACGTGGGTAACCTGCCATAAGACTGGGATAACTCCGGGAAACCGGGGCTAATACCGGATAATATT  
TTGAACTGCATGGTTCGAAATTGAAAGGCGGCTTCGGCTGTCACTTATGGATGGACCCGCGTCGCATTAGCTAGTT  
GGTGAGGTAACGGCTCACCAAGGCAACGATGCGTAGCCGACCTGAGAGGGTGATCGGCCACACTGGGACTGAGA  
CACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCGCAATGGACGAAAGTCTGACGGAGCAACGCC  
GCGTGAGTGATGAAGGCTTTCGGGTCGTAAGCTCTGTTGTTAGGGAAGAACAAGTGCTAGTTGAATAAGCTGGC  
ACCTTGACGGTACCTAACAGAAAGCCACGGCTAACTACGTGCCAGCAGCCGCGGTAATACGTAGGTGGCAAGCG  
TTATCCGGAATTATTGGGCGTAAAGCGCGCGCAGGTGGTTTCTTAAGTCTGATGTGAAAGCCACGGCTCAACCG  
TGGAGGGTCATTGGAAACTGGGAGACTTGAGTGCAGAAGAGGAAAGTGGAAATTCATGTGTAGCGGTGAAATGC  
GTAGAGATATGGAGGAACACCAAGTGGCGAAGGCGACTTCTGGTCTGTAAGTACACTGAGGCGCGAAAGCGTG  
GGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGAGTGCTAAGTGTTAGAGGGTTTCCGCC  
CTTTAGTGCTGAAGTTAACGCATTAAGCACTCCGCCTGGGGAGTACGGCCGCAAGGCTGAAACTCAAAGGAATTG  
ACGGGGGGCCCGACAAGCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGTCTTGACAT  
CCTCTGAAAACCTAGAGATAGGGCTTCTCCTTCGGGAGCAGAGTGACAGGTGGTGCATGGTTGTCGTCAGCTCG  
TGTCGTGAGATGTTGGGTAAAGTCCCGCAACGAGCGCAACCCTTGATCTTAGTTGCCATCATTAAAGTTGGGCACTC  
TAAGGTGACTGCCGGTGACAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCTTATGACCTGGGCT  
ACACACGTGCTACAATGGACGGTACAAAGAGCTGCAAGACCGCGAGGTGGAGCTAATCTCATAAAACCGTTCTCA  
GTTTCGATTGTAGGCTGCAACTCGCCTACATGAAGCTGGAATCGCTAGTAATCGCGGATCAGCATGCCGCGGTGA  
ATACGTTCCCGGGCCTTGACACACCGCCGTCACACCACGAGAGTTTGTAAACCCGAAGTCGGTGGGGTAACCT  
TTATGGAGCCAGCCGCTAAGGTGGGACAGATGATTGGGGTGAAGTCGTAGCAAGTACCCTGAGGG

***Bacillus thuringiensis*, KU179338.1, 1489 bp., Percent identity 100%**

CATGGGCGGCGTGCTATACATGCAGTCGAGCGAATGGATTGAGAGCTTGCTCTCAAGAAGTTAGCGGCGGACGG  
GTGAGTAACACGTGGGTAACCTGCCATAAGACTGGGATAACTCCGGGAAACCGGGGCTAATACCGGATAATATT  
TTGAACTGCATGGTTCGAAATTGAAAGGCGGCTTCGGCTGTCACTTATGGATGGACCCGCGTCGCATTAGCTAGTT  
GGTGAGGTAACGGCTCACCAAGGCAACGATGCGTAGCCGACCTGAGAGGGTGATCGGCCACACTGGGACTGAGA  
CACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCGCAATGGACGAAAGTCTGACGGAGCAACGCC  
GCGTGAGTGATGAAGGCTTTCGGGTCGTAAGCTCTGTTGTTAGGGAAGAACAAGTGCTAGTTGAATAAGCTGGC  
ACCTTGACGGTACCTAACAGAAAGCCACGGCTAACTACGTGCCAGCAGCCGCGGTAATACGTAGGTGGCAAGCG  
TTATCCGGAATTATTGGGCGTAAAGCGCGCGCAGGTGGTTTCTTAAGTCTGATGTGAAAGCCACGGCTCAACCG  
TGGAGGGTCATTGGAAACTGGGAGACTTGAGTGCAGAAGAGGAAAGTGGAAATTCATGTGTAGCGGTGAAATGC  
GTAGAGATATGGAGGAACACCAAGTGGCGAAGGCGACTTCTGGTCTGTAAGTACACTGAGGCGCGAAAGCGTG  
GGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGAGTGCTAAGTGTTAGAGGGTTTCCGCC  
CTTTAGTGCTGAAGTTAACGCATTAAGCACTCCGCCTGGGGAGTACGGCCGCAAGGCTGAAACTCAAAGGAATTG  
ACGGGGGGCCCGACAAGCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGTCTTGACAT  
CCTCTGAAAACCTAGAGATAGGGCTTCTCCTTCGGGAGCAGAGTGACAGGTGGTGCATGGTTGTCGTCAGCTCG  
TGTCGTGAGATGTTGGGTAAAGTCCCGCAACGAGCGCAACCCTTGATCTTAGTTGCCATCATTAAAGTTGGGCACTC  
TAAGGTGACTGCCGGTGACAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCTTATGACCTGGGCT  
ACACACGTGCTACAATGGACGGTACAAAGAGCTGCAAGACCGCGAGGTGGAGCTAATCTCATAAAACCGTTCTCA  
GTTTCGATTGTAGGCTGCAACTCGCCTACATGAAGCTGGAATCGCTAGTAATCGCGGATCAGCATGCCGCGGTGA  
ATACGTTCCCGGGCCTTGACACACCGCCGTCACACCACGAGAGTTTGTAAACCCGAAGTCGGTGGGGTAACCT  
TTATGGAGCCAGCCGCTAAGGTGGGACAGATGATTGGGGTGAAGTCGTAGCAAGTACCCTGAGGG

**3. *Curtobacterium* sp., MZ424740 (s1860-3,9,15,21), 1514 bp.**

AGAGTTTGATCCTGGCTCAGGACGAACGCTGGCGGCGTGCTTAACACATGCAAGTCGAACGATGATGCCAGCTT  
GCTGGGTGGATTAGTGGCGAACGGGTGAGTAACACGTGAGTAACCTGCCCTGACTCTGGGATAAGCGTTGGAA  
ACGACGTCTAATACTGGATATGATCACTGGCCGCATGGTCTGGTGGTGAAAGATTTTTTGGTTGGGGATGGACT  
CGCGGCCTATCAGCTTGTTGGTGAGGTAATGGCTCACCAAGGCGACGACGGGTAGCCGCCTGAGAGGGTGACC  
GGCCACACTGGGACTGAGACACGGCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGGCGAA  
AGCTGATGCAGCAACGCCGCGTGAGGGATGACGGCCTTCGGGTTGTAAACCTCTTTAGTAGGGAAGAAGCGA  
AAGTGACGGTACCTGCAGAAAAAGCACCGGCTAACTACGTGCCAGCAGCCGCGGTAATACGTAGGGTGCAAGCG  
TTGTCCGGAATTATTGGGCGTAAAGAGCTCGTAGGCGGTTTGTGCGCTGCTGTGAAATCCCGAGGCTCAACCTC  
GGGCTTGCAGTGGGTACGGGCAGACTAGAGTGCGGTAGGGGAGATTGGAATTCCTGGTGTAGCGGTGGAATGC  
GCAGATATCAGGAGGAACACCGATGGCGAAGGCAGATCTCTGGGCCGTAAGTACGCTGAGGAGCGAAAGCAT

GGGGAGCGAACAGGATTAGATACCCTGGTAGTCCATGCCGTAAACGTTGGGCGCTAGATGTAGGGACCTTTCCAC  
GGTTTCTGTGTCGTAGCTAACGCATTAAGCGCCCCGCCTGGGGAGTACGGCCGCAAGGCTAAAACTCAAAGGAAT  
TGACGGGGGGCCCGCACAAAGCGGCGGAGCATGCGGATTAATTCGATGCAACGCGAAGAACCTTACCAAGGCTTGA  
CATACACCGGAAACGGCCAGAGATGGTCGCCCCCTTGTGGTGGTGTACAGGTGGTGCATGGTTGTCGTCAGCTC  
GTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTCGTTCTATGTTGCCAGCGGGTTATGCCGGGG  
ACTCATAGGAGACTGCCGGGGTCAACTCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCTTATGTCTTG  
GGCTTCACGCATGCTACAATGGCCGGTACAAAGGGCTGCGATACCGTAAGGTGGAGCGAATCCCAAAAAGCCGG  
TCTCAGTTCGGATTGAGGTCTGCAACTCGACCTCATGAAGTCGGAGTCGCTAGTAATCGCAGATCAGCAACGCTGC  
GGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCAAGTCATGAAAGTCGGTAACACCCGAAGCCGGTGGCC  
TAACCTTGTGGAAGGAGCCGTCGAAGGTGGGATCGGTGATTAGGACTAAGTCGTAACAAGGTAGCCGTACCGG  
AAGGTGCGGCTGGATCACCTCCTT

***Curtobacterium flaccumfaciens***, AJ310414.1, 1514 bp., Percent identity 100%

AGAGTTTGATCCTGGCTCAGGACGAACGCTGGCGGCGTCTTAACACATGCAAGTCGAACGATGATGCCAGCTT  
GCTGGGTGGATTAGTGGCGAACGGGTGAGTAACACGTGAGTAACCTGCCCTGACTCTGGGATAAGCGTTGGAA  
ACGACGTCTAATACTGGATATGATCACTGGCCGCATGGTCTGGTGGTGGAAAGATTTTTTGGTTGGGGATGGACT  
CGCGGCCTATCAGCTTGTGGTGAGGTAATGGCTCACCAAGGCGACGACGGGTAGCCGGCCTGAGAGGGTGACC  
GGCCACACTGGGACTGAGACACGGCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGGCGAA  
AGCCTGATGCAGCAACGCCGCTGAGGGATGACGGCCTTCGGGTTGTAAACCTCTTTAGTAGGGAAGAAGCGA  
AAGTGACGGTACCTGCAGAAAAAGCACCGGCTAACTACGTGCCAGCAGCCGCGTAATACGTAGGGTGCAAGCG  
TTGTCCGGAATTATTGGGCGTAAAGAGCTCGTAGGCGGTTTGTGCGTCTGCTGTGAAATCCCGAGGCTCAACCTC  
GGGCTTGCAGTGGGTACGGGCAGACTAGAGTGCGGTAGGGGAGATTGGAATTCCTGGTGTAGCGGTGGAATGC  
GCAGATATCAGGAGGAACACCGATGGCGAAGGCAGATCTCTGGGCCGTAAGTACGCTGAGGAGCGAAAGCAT  
GGGGAGCGAACAGGATTAGATACCCTGGTAGTCCATGCCGTAAACGTTGGGCGCTAGATGTAGGGACCTTTCCAC  
GGTTTCTGTGTCGTAGCTAACGCATTAAGCGCCCCGCCTGGGGAGTACGGCCGCAAGGCTAAAACTCAAAGGAAT  
TGACGGGGGGCCCGCACAAAGCGGCGGAGCATGCGGATTAATTCGATGCAACGCGAAGAACCTTACCAAGGCTTGA  
CATACACCGGAAACGGCCAGAGATGGTCGCCCCCTTGTGGTGGTGTACAGGTGGTGCATGGTTGTCGTCAGCTC  
GTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTCGTTCTATGTTGCCAGCGGGTTATGCCGGGG  
ACTCATAGGAGACTGCCGGGGTCAACTCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCTTATGTCTTG  
GGCTTCACGCATGCTACAATGGCCGGTACAAAGGGCTGCGATACCGTAAGGTGGAGCGAATCCCAAAAAGCCGG  
TCTCAGTTCGGATTGAGGTCTGCAACTCGACCTCATGAAGTCGGAGTCGCTAGTAATCGCAGATCAGCAACGCTGC  
GGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCAAGTCATGAAAGTCGGTAACACCCGAAGCCGGTGGCC  
TAACCTTGTGGAAGGAGCCGTCGAAGGTGGGATCGGTGATTAGGACTAAGTCGTAACAAGGTAGCCGTACCGG  
AAGGTGCGGCTGGATCACCTCCTT

4. ***Erwinia* sp., MZ424741** (s1860-4,10,16,22), 1508 bp.

AAGAGTTTGATCATGGCTCAGATTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGAACGGTAGCACAGAGA  
GCTTGCTCTCGGGTGACGAGTGGCGGACGGGTGAGTAATGTCTGGGAACTGCCTGATGGAGGGGGATAACTAC  
TGGAACCGGTAGCTAATACCGCATAACGTCTTCGGACCAAAGTGGGGGACCTTCGGGCCTCACACCATCGGATGT  
GCCAGATGGGATTAGCTAGTAGGTGGGGTAATGGCTCACCTAGGCGACGATCCCTAGCTGGTCTGAGAGGATG  
ACCAGCCACACTGGAAGTGAAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGGC  
GCAAGCCTGATGCAGCCATGCCGCGTGTATGAAGAAGGCCTTCGGGTTGTAAAGTACTTTCAGCGGGGAGGAAG  
GCGATAAGGTAAATAACCTTGTGATTGACGTTACCCGCGAAGAAGCACCGGCTAACTCCGTGCCAGCAGCCGC  
GGTAATACGGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGCACGCAGGCGGTCTGTCAAGTCAGA  
TGTGAAATCCCCGGGCTTAACCTGGGAACTGCATTTGAAACTGGCAGGCTAGAGTCTTGAGAGGGGGGTAGAAT  
TCCAGGTGTAGCGGTGAAATGCGTAGAGATCTGGAGGAATACCGGTGGCGAAGGCGGCCCTTGACAAAGACT  
GACGCTCAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTCGA  
CTTGAGGTTGTGCCCTTGAGGCGTGGCTTCCGGAGCTAACGCGTTAAGTCGACCGCCTGGGGAGTACGGCCGCA  
AGGTTAAAACTCAAATGAATTGACGGGGGGCCCGCACAAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGA  
AGAACCTTACCTGGCCTTGACATCCACGGAATTCGGCAGAGATGCCTTAGTGCTTCGGGAACCGTGAGACAGGT  
GCTGCATGGCTGTCGTCAGCTCGTGTGTAATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTATCCTTTGT  
TGCCAGCGAGTAATGTCGGGAACTCAAAGGAGACTGCCGGTGACAAACCGGAGGAAGGTGGGGATGACGTCAA  
GTCATCATGGCCCTTACGGCCAGGGCTACACACGTGCTACAATGGCGCATACAAAGAGAAGCGAACTCGCGAGA  
GCAAGCGGACCTCACAAAGTGCGTCGTAGTCCGGATCGGAGTCTGCAACTCGACTCCGTGAAGTCGGAATCGCTA

GTAATCGTAGATCAGAATGCTACGGTGAATACGTTCCCGGGCCTTGACACACCGCCCGTCACACCATGGGAGTG  
GGTTGCAAAAGAAGTAGGTAGCTTAACCTTCGGGAGGGCGCTTACCACTTTGTGATTCATGACTGGGGTGAAGTC  
GTAACAAGGTAACCGTAGG

***Erwinia billingiae***, KM408608.1, 1535 bp., Percent identity 100%

GAAGAGTTTGATCATGGCTCAGATTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGAACGGTAGCACAGAG  
AGCTTGCTCTCGGGTGACGAGTGGCGGACGGGTGAGTAATGTCTGGGAACTGCCTGATGGAGGGGGATAACTA  
CTGGAAACGGTAGCTAATACCGCATAACGTCTTCGGACCAAAGTGGGGGACCTTCGGGCCTCACACCATCGGATG  
TGCCAGATGGGATTAGCTAGTAGGTGGGGTAATGGCTCACCTAGGCGACGATCCCTAGCTGGTCTGAGAGGAT  
GACCAGCCACACTGGAAGTGAAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGG  
CGCAAGCCTGATGCAGCCATGCCGCGTGTATGAAGAAGGCCTTCGGGTTGTAAAGTACTTTCAGCGGGGAGGAA  
GGCGATAAGGTTAATAACCTTGTGATTGACGTTACCCGCGAAGAAGCACCGGCTAACTCCGTGCCAGCAGCCG  
CGGTAATACGGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGCACGCAGGCGGTCTGTCAAGTCAG  
ATGTGAAATCCCCGGGCTTAACCTGGGAAGTGCATTTGAAACTGGCAGGCTAGAGTCTTGTAGAGGGGGGTAGA  
ATTCCAGGTGTAGCGGTGAAATGCGTAGAGATCTGGAGGAATACCGGTGGCGAAGGCGGCCCTGGACAAAGA  
CTGACGCTCAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTC  
GACTTGGAGGTTGTGCCCTTGAGGCGTGGCTTCGGAGCTAACGCGTTAAGTCGACCGCCTGGGGAGTACGGCC  
GCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCCGACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACG  
CGAAGAACCTTACCTGGCCTTGACATCCACGGAATTCGGCAGAGATGCCTTAGTGCCTTCGGGAACCGTGAGACA  
GGTGCTGCATGGCTGTCGTAGCTCGTGTGTGAAATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTATCCTT  
TGTTGCCAGCGAGTAATGTCGGGAAGTCAAAGGAGACTGCCGGTGACAAACCGGAGGAAGGTGGGGATGACGT  
CAAGTCATCATGGCCCTTACGGCCAGGGCTACACACGTGCTACAATGGCGCATACAAAGAGAAGCGAACTCGCGA  
GAGCAAGCGGACCTCACAAAGTGCCTCGTAGTCCGGATCGGAGTCTGCAACTCGACTCCGTGAAGTCGGAATCGC  
TAGTAATCGTAGATCAGAATGCTACGGTGAATACGTTCCCGGGCCTTGACACACCGCCCGTCACACCATGGGAGT  
GGGTTGCAAAAGAAGTAGGTAGCTTAACCTTCGGGAGGGCGCTTACCACTTTGTGATTCATGACTGGGGTGAAGT  
CGTAACAAGGTAACCGTAGGGGAACCTGCGGTTGGATCACCTCCT

5. ***Pantoea* sp., MZ424742** (s1706-9-al14), 419 bp.

GCTGGCAGGCCTAACACATGCAAGTCGGACGGTAGCACAGAGGAGCTTGCTCCTTGGTGGACGAGTGCCGAACG  
GGTAAGTAATGTCGGGAACCGCCCCGTAAAGGGGGGATAACCACTGGAACGGTGGCTAATACCGCATAACGT  
CGCAAGACAAAAGAGGGGACCTTCGGGCCTCTCACTATCGGATGAAACCAGATGGGATTAGCTAGTAGCGGGG  
TAATGGCCCACTAGGCGACCAACCCTAACCGGGCTGAAAGGAAGGACCAGCAACACGAAATGAGAAAACGTC  
CAGAATCCCACCGGGAGGCACCAAGTGGGGAAAATTGCACAATGGGCGCAAGCCTGATGCAGCCATGCCGCGTGT  
ATGAAGAAGGCCTTCGGGTTGTAAAGTACTTTCAGCGGGGAGGAAGGCG

***Pantoea agglomerans***, MT605813.1, 1505bp., Percent identity 99.75%

AGAGTTTGATCATGGCTCAGATTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGGACGGTAGCACAGAGGA  
GCTTGCTCCTTGGGTGACGAGTGGCGGACGGGTGAGTAATGTCTGGGGATCTGCCCGATAGAGGGGGATAACCA  
CTGGAAACGGTGGCTAATACCGCATAACGTGCGAAGACCAAAGAGGGGGACCTTCGGGCCTCTCACTATCGGATG  
AACCAGATGGGATTAGCTAGTAGGCGGGGTAATGGCCACCTAGGCGACGATCCCTAGCTGGTCTGAGAGGAT  
GACCAGCCACACTGGAAGTGAAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGG  
CGCAAGCCTGATGCAGCCATGCCGCGTGTATGAAGAAGGCCTTCGGGTTGTAAAGTACTTTCAGCGGGGAGGAA  
GGCGACGGGGTTAATAACCCTGTCGATTGACGTTACCCGCGAAGAAGCACCGGCTAACTCCGTGCCAGCAGCCG  
CGGTAATACGGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGCACGCAGGCGGTCTGTAAAGTCAG  
ATGTGAAATCCCCGGGCTTAACCTGGGAAGTGCATTTGAAACTGGCAGGCTTGAGTCTTGTAGAGGGGGGTAGAA  
TTCCAGGTGTAGCGGTGAAATGCGTAGAGATCTGGAGGAATACCGGTGGCGAAGGCGGCCCTGGACAAAGAC  
TGACGCTCAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTCG  
ACTTGAGGTTGTTCCCTTGAGGAGTGGCTTCCGGAGCTAACGCGTTAAGTCGACCGCCTGGGGAGTACGGCCGC  
AAGGTTAAAACTCAAATGAATTGACGGGGGCCCCGACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCG  
AAGAACCTTACCTACTCTTGACATCCACGGAATTTGGCAGAGATGCCTTAGTGCCTTCGGGAACCGTGAGACAGGT  
GCTGCATGGCTGTCGTAGCTCGTGTGTGAAATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTATCCTTTGT  
TGCCAGCGATTCCGGTCGGGAAGTCAAAGGAGACTGCCGGTGATAAACCGGAGGAAGGTGGGGATGACGTCAAG  
TCATCATGGCCCTTACGAGTAGGGCTACACACGTGCTACAATGGCGCATACAAAGAGAAGCGACCTCGCGAGAGC  
AAGCGGACCTCACAAAGTGCCTCGTAGTCCGGATCGGAGTCTGCAACTCGACTCCGTGAAGTCGGAATCGCTAGT

AATCGTGGATCAGAATGCCACGGTGAATACGTTCCCGGGCCTTGACACACCGCCCGTCACACCATGGGAGTGGG  
TTGCAAAAGAAGTAGGTAGCTTAACCTTCGGGAGGGCGCTTACCACTTTGTGATTCATGACTGGGGTGAAGTCGT  
ACAAGGTACCATC

6. *Pseudomonas* sp., MZ424743 (s1860-5,11,17,23), 1530 bp.

AAGAGTTTGATCATGGCTCAGATTGACCGCTGGCGGCAGGCCTAACACATGCAAGTCGAGCGGATGAGAGGAGC  
TTGCTCTTCGATTACGCGGCGGACGGGTGAGTAATGCCTAGGAATCTGCCTGGTAGTGGGGGACAACGTTTCGAA  
AGGAACGCTAATACCGCATACGTCCTACGGGAGAAAGCAGGGGACCTTCGGGCCTTGCCTATCAGATGAGCCTA  
GGTCGGATTAGCTAGTTGGTGAGGTAATGGCTACCAAGGCGACGATCCGTAACCTGGTCTGAGAGGATGATCAGT  
CACACTGGAAGTGAAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGGCGAAAAGC  
CTGATCCAGCCATGCCGCGTGTGTGAAGAAGGTCTTCGGATTGTAAAGCACTTTAAGTTGGGAGGAAGGGTTGTT  
TCCTAATACGAAGCAATTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATAC  
AGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGCGCGTAGGTGGTTTGTAAAGTTGAATGTGAAATC  
CCCGGGCTCAACCTGGGAAGTGCATCCAAAAGTGGCAAGCTAGAGTAGGGCAGAGGGTGGTGGAAATTTCTGTG  
TAGCGGTGAAATGCGTAGATATAGGAAGGAACACCAAGTGGCGAAGGCGACCACCTGGGCTCATACTGACACTGA  
GGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTCAACTAGCCGT  
TGGAATCCTTGAGATTTTAGTGGCGCAGCTAACGCATTAAGTTGACCGCCTGGGGAGTACGGCCGCAAGGTTAAA  
ACTCAAATGAATTGACGGGGGGCCCGCACAAAGCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTT  
ACCAGGCCTTGACATCCAATGAACCTTCCAGAGATGGATTGGTGCCTTCGGGAACATTGAGACAGGTGCTGCATG  
GCTGTCGTCAGCTCGTGTGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTGTCTTAGTTACCAGCA  
CGTTATGGTGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAGGAAGGTGGGGATGACGTCAAGTCATCATG  
GCCCTTACGGCCTGGGCTACACACGTGCTACAATGGTCGGTACAGAGGGTTGCCAAGCCGCGAGGTGGAGCTAAT  
CTCACAAAACCGATCGTAGTCCGGATCGCAGTCTGCAACTCGACTGCGTGAAGTCGGAATCGCTAGTAATCGCGA  
ATCAGAATGTCGCGGTGAATACGTTCCCGGGCCTTGACACACCGCCCGTCACACCATGGGAGTGGGTTGCACCA  
GAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGATTCATGACTGGGGTGAAGTCGTAACAAGGT  
AGCCGTAGGGGAACCTGCGGCTGGATCACCTCCTT

*Pseudomonas alkylphenolica*, MN813762.1, 1542 bp., Percent identity

98.89%ATTGAACTGAAGAGTTTGATCATGGCTCAGATTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGAGC  
GGATGAGAAGAGCTTGCTCTTCGATTACGCGGCGGACGGGTGAGTAATACCTAGGAATCTGCCTGGTAGTGGGG  
GACAACGTTTCGAAAGGAACGCTAATACCGCATACGTCCTACGGGAGAAAGCAGGGGACCTTCGGGCCTTGCCT  
ATCAGATGAGCCTAGGTCGGATTAGCTAGTTGGTGAGGTAATGGCTACCAAGGCGACGATCCGTAACCTGGTCTG  
AGAGGATGATCAGTCACACTGGAAGTGAAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGGA  
CAATGGGCGAAAGCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGTCTTCGGATTGTAAAGCACTTTAAGTTGG  
GAGGAAGGGTACTTACCTAATACGTGAGTATTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGCCAG  
CAGCCGCGGTAATACAGAGGGTGAAGCGTTAATCGGAATTACTGGGCGTAAAGCGCGCGTAGGTGGTTTGTTA  
AGTTGGATGTGAAATCCCCGGGCTCAACCTGGGAAGTGCATCCAAAAGTGGCAAGCTAGAGTAGGGCAGAGGGT  
GGTGGAATTTCTGTGTAGCGGTGAAATGCGTAGATATAGGAAGGAACACCAAGTGGCGAAGGCGACCACCTGGG  
CTCATACTGACACTGAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAAC  
GATGTCAACTAGCCGTTGGAATCCTTGAGATTTTAGTGGCGCAGCTAACGCATTAAGTTGACCGCCTGGGGAGTA  
CGGCCGCAAGGTTAAACTCAAATGAATTGACGGGGGGCCCGCACAAAGCGGTGGAGCATGTGGTTTAATTCGAAG  
CAACGCGAAGAACCTTACCAGGCCTTGACATGCAGAGAACTTCCAGAGATGGATTGGTGCCTTCGGGAAGTCTG  
ACACAGGTGCTGCATGGCTGTCGTGAGTCTGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTT  
GTCCTTAGTTACCAGCACGTTATGGTGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAGGAAGGTGGGGAT  
GACGTCAAGTCATCATGGCCCTTACGGCCTGGGCTACACACGTGCTACAATGGTCGGTACAGAGGGTTGCCAAGC  
CGCGAGGTGGAGCTAATCTCACAAAACCGATCGTAGTCCGGATCGCAGTCTGCAACTCGACTGCGTGAAGTCGGA  
ATCGCTAGTAATCGCGAATCAGAATGTCGCGGTGAATACGTTCCCGGGCCTTGACACACCGCCCGTCACACCATG  
GGAGTGGGTTGCACCAGAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGATTCATGACTGGGG  
TGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCACCTCCTTAAT

7. *Xanthomonas* sp., MZ424744 (s1860-6,12,18,24), 1497

bp.AGTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGAACGGCAGCACAGAGGAGCTTGCTCCTTGGGTGGC  
GAGTGGCGGACGGGTGAGGAATACATCGGAATCTACTCTGTCGTGGGGGATAACGTAGGGAACTTACGCTAAT  
ACCGCATACGACCTACGGGTGAAAGCGGAGGACCTTCGGGCTTCGCGCGATTGAATGAGCCGATGTCGGATTAG

CTAGTTGGCGGGGTAAAGGCCACCAAGGCGACGATCCGTAGCTGGTCTGAGAGGATGATCAGCCACACTGGAA  
CTGAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGAATATTGGACAATGGGCGCAAGCCTGATCCAGC  
CATGCCGCGTGGGTGAAGAAGGCCTTCGGGTTGTAAAGCCCTTTTGTGGGAAAGAAAAGCAGTCGGTTAATACC  
CGATTGTTCTGACGGTACCCAAAGAATAAGCACCGGCTAACTTCGTGCCAGCAGCCGCGGTAATACGAAGGGTGC  
AAGCGTTACTCGGAATTACTGGGCGTAAAGCGTGCGTAGGTGGTGGTTTAAAGTCCGTTGTGAAAGCCCTGGGCTC  
AACCTGGGAATTGCAGTGGATACTGGGTCACTAGAGTGTGGTAGAGGGTAGCGGAATCCCGGTGTAGCAGTGA  
AATGCGTAGAGATCGGGAGGAACATCTGTGGCGAAGGCGGCTACCTGGACCAACACTGACACTGAGGCACGAAA  
GCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCCTAAACGATGCGAACTGGATGTTGGGTGCAA  
TTTGGCACGCAGTATCGAAGCTAACGCGTTAAGTTCGCCGCTGGGGAGTACGGTCGCAAGACTGAAACTCAAAG  
GAATTGACGGGGGCCCGCACAAAGCGGTGGAGTATGTGGTTTAAATTCGATGCAACGCGAAGAACCTTACCTGGTCT  
TGACATCCACGGAACCTTCCAGAGATGGATTGGTGCCTTCGGGAACCGTGAGACAGGTGCTGCATGGCTGTCGTC  
AGCTCGTGTCTGAGATGTTGGGTAAAGTCCCGCAACGAGCGCAACCCTTGTCTTAGTTGCCAGCACGTAATGGT  
GGAACTCTAAGGAGACCGCCGGTGACAAACCGGAGGAAGGTGGGGATGACGTCAAGTCATCATGGCCCTTACG  
ACCAGGGCTACACACGTACTACAATGGTTAGGACAGAGGGCTGCAATCCCGCGAGGGTGAGCCAATCCAGAAA  
CCTAATCTCAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGCAGATCAGCATT  
GCTGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCGTCACACCATGGGAGTTTGTTCACACAGAAGCAGG  
TAGCTTAACCTTCGGGAGGGCGCTTGCCACGGTGTGGCCGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTA  
TCGGAAGG

***Xanthomonas campestris***, MN108237,1547 bp., Percent identity

99.13%TAAGTGAAGAGTTTGATCCTGGCTCAGAGTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGAACGG  
CAGCACAGTAAGAGCTTGCTCTTATGGGTGGCGAGTGGCGGACGGGTGAGGAATACATCGGAATCTACTCTTCG  
TGGGGGATAACGTAGGGAACTTACGCTAATACCGCATACGACCTACGGGTGAAAGCGGAGGACCTTCGGGCTT  
CGCGCGATTGAATGAGCCGATGTCGGATTAGCTAGTTGGCGGGGTAAAGGCCACCAAGGCGACGATCCGTAGC  
TGGTCTGAGAGGATGATCAGCCACACTGGAAGTGAAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAA  
TATTGGACAATGGGCGCAAGCCTGATCCAGCCATGCCGCGTGGGTGAAGAAGGCCTTCGGGTTGTAAAGCCCTT  
TGTTGGGAAAGAAAAGCAGTCGGTTAATACCCGATTGTTCTGACGGTACCCAAAGAATAAGCACCGGCTAACTTC  
GTGCCAGCAGCCGCGTAATACGAAGGGTGCAAGCGTTACTCGGAATTACTGGGCGTAAAGCGTGCGTAGGTGG  
TGGTTTAAAGTCTGTTGTGAAAGCCCTGGGCTCAACCTGGGAATTGCAGTGGATACTGGGTCACTAGAGTGTGGTA  
GAGGGTAGCGGAATTCGGGTGTAGCAGTGAAATGCGTAGAGATCGGGAGGAACATCCGTGGCGAAGGCGGCT  
ACCTGGACCAACACTGACACTGAGGCACGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGC  
CCTAAACGATGCGAACTGGATGTTGGGTGCAATTTGGCACGCAGTATCGAAGCTAACGCGTTAAGTTCGCCGCT  
GGGGAGTACGGTCGCAAGACTGAAACTCAAAGGAATTGACGGGGGCCCGCACAAAGCGGTGGAGTATGTGGTTTA  
ATTGATGCAACGCGAAGAACCTTACCTGGTCTTGACATCCACGGAACCTTCCAGAGATGGATTGGTGCCTTCGGG  
AACCGTGAGACAGGTGCTGCATGGCTGTCGTCAGCTCGTGTCTGAGATGTTGGGTAAAGTCCCGCAACGAGCGC  
AACCTTGTCTTAGTTGCCAGCACGTAATGGTGGGAACCTAAGGAGACCGCCGGTGACAAACCGGAGGAAGGT  
GGGGATGACGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACACGTACTACAATGGTAGGGACAGAGGGCT  
GCAAACCCGCGAGGGTAAGCCAATCCAGAAACCCTATCTCAGTCCGATTGGAGTCTGCAACTCGACTCCATGA  
AGTCGGAATCGCTAGTAATCGCAGATCAGCATTGCTGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCGTC  
ACACCATGGGAGTTTGTTCACACAGAAGCAGGTAGCTTAACCTTCGGGAGGGCGCTTGCCACGGTGTGGCCGATG  
ACTGGGGTGAAGTCGTAACAAGGTAGCCGTATCGGAAGGTGCGGCTGGATCACCTCCTT

8. ***Alternaria* sp., MZ427922** (s1778-2-al14), 562 bp.

TCCGTAGGTGAACCTGCGGAGGGATCATTACACAAATATGAAGGCGGGCTGGAACCTCTCGGGGTTACAGCCTTG  
CTGAATTATTCACCCTTGCTTTTGCCTACTTCTGTTTCCTTGGTGGGTTTCGCCACCACTAGGACAAACATAAACC  
TTTTGTAATTGCAATCAGCGTCAGTAACAAATTAATAATTACAACCTTCAACAACGGATCTCTTGGTTCTGGCATCG  
ATGAAGAACGCAGCGAAATGCGATAAGTAGTGTGAATCGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACA  
TTGCGCCCTTTGGTATTCCAAAGGGCATGCCTGTTGAGCGTCATTTGTACCCTCAAGCTTTGCTTGGTGTGGGCG  
TCTTGTCTCTAGCTTTGCTGGAGACTCGCCTTAAAGTAATTGGCAGCCGGCCTACTGGTTTCGGAGCGCAGCACA  
GTCGCACTCTCTATCAGCAAAGGTCTAGCATCCATTAAGCCTTTTTTCAACTTTTGACCTCGGATCAGGTAGGGAT  
ACCCGCTGAACCTTAAGCATATCAATAA

***Alternaria tenuissima***, KF308883.1, 570bp., Percent identity 100%

TCCGTAGGTGAACCTGCGGAGGGATCATTACACAAATATGAAGGCGGGCTGGAACCTCTCGGGGTTACAGCCTTG  
CTGAATTATTACCCCTTGTCTTTTGCCTACTTCTGTTTCTTGGTGGGTTGCCCCACCACTAGGACAAACATAAACC  
TTTTGTAATTGCAATCAGCGTCAGTAACAAATTAATAATTACAACCTTCAACAACGGATCTCTTGGTTCTGGCATCG  
ATGAAGAACGCAGCGAAATGCGATAAGTAGTGTGAATCGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACA  
TTGCGCCCTTTGGTATTCCAAAGGGCATGCCTGTTGAGCGTCATTTGTACCCTCAAGCTTTGCTTGGTGTGGGCG  
TCTTGTCTCTAGCTTTGCTGGAGACTCGCCTTAAAGTAATTGGCAGCCGGCCTACTGGTTTCGGAGCGCAGCACA  
GTCGCACTCTCTATCAGCAAAGGTCTAGCATCCATTAAGCCTTTTTTCAACTTTTGACCTCGGATCAGGTAGGGAT  
ACCCGCTGAACCTTAAGCATATCAATAAGCGGAGGA

9. *Biscogniauxia* sp., MZ427923 (s1778-10-al22), 590 bp

ATGTGAACATACCTACTGTTGCCTCGGCAGGTCTGTCTGCGCGGCAGGATCGCCCCCTCGGGTTCGGTGCTAC  
AGGACTAGCTACCCTGTAGCGGCTTTCTGGAGTGGCTACCCTGGAGCAGCTGCTACTGGACTAGCTACCCCGTA  
GCAGCTGCCCTGGGGCGGCTACCCCGCAGCGGGGGGGCGCCCGCCCCGAGCACGCCAACAGGCCTGCCGGAG  
GACCCCTAACTCTGTTTTACACCTGTATCTCTGAGGCTATGATGGAAATAAGTTAAACTTTCAACAACGGATCTC  
TTGGCTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGA  
ATCTTTGAACGCACATTGCGCCTGACAGTATTCTGTTAGGCAAGCCTGTTGAGCGTCATTTCAACCCTCAAGCCCT  
ATTTGCTTGACGTTGGGAGTTTACGGAGACGTAATTCCTTAAATATAGTGGCGGAGCCGGGTCTGTCTCTGGGCG  
TAGTAACCAAACCTCTGCCTCTGTAGCCGGCTCGGGTCTTGCCGTAAACCCCTATATTCT

*Biscogniauxia maritima*, MN341558.1, 707 bp., Percent identity 100%

GTAACAAGGTCTCCGTTGGTGAACCAGCGGAGGGATCATTAGCGAGTTGGTTACAAGCTCCAAACCCATGTGAAC  
ATACCTACTGTTGCCTCGGCAGGTCTGTCTGCGCGGCAGGATCGCCCCCTCGGGTTCGGTGCTACAGGACTA  
GCTACCCTGTAGCGGCTACCCTGGAGTGGCTACCCTGGAGCAGCTGCTACTGGACTAGCTACCCCGTAGCAGCTG  
CCCTGGGGCAGCTACCCCGCAGCGGGGGGGCGCCCGCCCCGAGCACGCCAACAGGCCTGCCGGAGGACCCCTA  
AACTCTGTTTTACACCTGTATCTCTGAGGCTATGATGGAAATAAGTTAAACTTTCAACAACGGATCTCTTGGCTCT  
GGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGA  
ACGCACATTGCGCCTGACAGTATTCTGTTAGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCCCTATTTGCTT  
GACGTTGGGAGTTTACGGAGACGTAATTCCTTAAATATAGTGGCGGAGCCGGGTCTGTCTCTGGGCGTAGTAACC  
AAACTCTGCCTCTGTAGCCGGCTCGGGTCTTGCCGTAAACCCCTATATTCTTCTGGTTGACCTCGGATCAGGTA  
GGAATACCCGCTGAACCTTAAGCATATC

10. *Cladosporium* sp., MZ427924 (s1778-7-al19), 512 bp.

AGGGATCATTACAAGTGACCCCGGTCTTACCACCGGGATGTTTCATAACCCTTTGTTGTCCGACTCTGTTGCCTCCGG  
GGCGACCCTGCCTTCGGGCGGGGGCTCCGGGTGGACACTTCAAACCTTTGCGTAACTTTGCAGTCTGAGTAACTT  
AATTAATAAATTAACAACTTTTAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAG  
TAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGTATTCCGGGGGGCAT  
GCCTGTTGAGCGTCATTTACCACTCAAGCCTCGCTTGGTATTGGGCAACGCGGTCCGCCGCGTGCCTCAAATCG  
ACCGGCTGGGTCTTCTGTCCCCTAAGCGTTGTGGAACTATTGCTAAAGGGTGTTCGGGAGGCTACGCCGTAA  
ACAACCCCATTTCTAAGGTTGACCTCGGATCAGGTAGGGATACCCGCTGAACCTAA

*Cladosporium perangustum*, MT645918.1, 512 bp., Percent identity 100%

AGGGATCATTACAAGTGACCCCGGTCTTACCACCGGGATGTTTCATAACCCTTTGTTGTCCGACTCTGTTGCCTCCGG  
GGCGACCCTGCCTTCGGGCGGGGGCTCCGGGTGGACACTTCAAACCTTTGCGTAACTTTGCAGTCTGAGTAACTT  
AATTAATAAATTAACAACTTTTAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAG  
TAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGTATTCCGGGGGGCAT  
GCCTGTTGAGCGTCATTTACCACTCAAGCCTCGCTTGGTATTGGGCAACGCGGTCCGCCGCGTGCCTCAAATCG  
ACCGGCTGGGTCTTCTGTCCCCTAAGCGTTGTGGAACTATTGCTAAAGGGTGTTCGGGAGGCTACGCCGTAA  
ACAACCCCATTTCTAAGGTTGACCTCGGATCAGGTAGGGATACCCGCTGAACCTAA

11. *Didymella* sp., MZ427925 (s1778-4-al16), 493 bp.

GAACCTGCGGAAGGATCATTACCTAGAGTTGTGGGCTTTGCCCGCCATCTCTTACCCATGTCTTTTGTAGTACCTTCG  
TTTCTCGGCGGGTCCGCCCGCGATTGGACAATTTAAACCATTTGCAGTTGCAATCAGCGTCTGAAAAAACTTA  
ATAGTTACAACCTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAGTGT  
GAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGTATTCCATGGGGCATGCCTGT

TCGAGCGTCATTTGTACCTTCAAGCTCTGCTTGGTGTGGGTGTTTGTCTCGCCTCCGCGTGTAGACTCGCCTCAAA  
ACAATTGGCAGCCGGCGTATTGATTTGCGAGCGCAGTACATCTCGCGCTTTGCACTCATAACGACGACGTCCAAAA  
GTACATTTTTTACACTCTTGAC

***Didymella negriana***, MK100201.1, 487 bp., Percent identity 100%

ATCATTACCTAGAGTTGTGGGCTTTGCCCCGCATCTCTTACCCATGTCTTTTGTAGTACCTTCGTTTCTCGGCGGGTC  
CGCCCGCCGATTGGACAATTTAAACCATTTCAGTTGCAATCAGCGTCTGAAAAAACTTAATAGTTACAACCTTTCA  
ACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAGTGTGAATTGCAGAATTCA  
GTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGTATTCCATGGGGCATGCCTGTTTCGAGCGTCATTTGTA  
CCTTCAAGCTCTGCTTGGTGTGGGTGTTTGTCTCGCCTCCGCGTGTAGACTCGCCTCAAAACAATTGGCAGCCGG  
CGTATTGATTTGCGAGCGCAGTACATCTCGCGCTTTGCACTCATAACGACGACGTCCAAAAGTACATTTTTTACACT  
CTTGACCTCGGATCAGGTAGGGATACC

12. ***Didymella sp.*, MZ427926** (s1778-5-al17), 543 bp.

AGTCGTAACAAGGTTTCCGTAGGTGAACCTGCGGAAGGATCATTACCTAGAGTTGTGGGCTTTGCCCCGCATCTCT  
TACCCATGTCTTTTGTAGTACCTTCGTTTCTCGGCGGGTCCGCCCGCCGATTGGACAATTTAAACCATTTCAGTTG  
CAATCAGCGTCTGAAAAAACTTAATAGTTACAACCTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAAC  
GCAGCGAAATGCGATAAGTAGTGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCT  
TGGTATTCCATGGGGCATGCCTGTTTCGAGCGTCATTTGTACCTTCAAGCTCTGCTTGGTGTGGGTGTTTGTCTCGC  
CTCCGCGTGTAGACTCGCCTCAAAACAATTGGCAGCCGGCGTATTGATTTGCGAGCGCAGTACATCTCGCGCTTTG  
CACTCATAACGACGACGTCCAAAAGTACATTTTTTACACTCTTGACCTCGGATCAGGTAGGGATACCCGCTGAACCT  
AAGCATAT

***Didymella pinodella***, KX869956.1, 957 bp., Percent identity 100%

TCTTGGTCCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTTCCGTAGGTGAACCTGCGGAAGGATCATTACCTAG  
AGTTGTGGGCTTTGCCCCGCATCTCTTACCCATGTCTTTTGTAGTACCTTCGTTTCTCGGCGGGTCCGCCCGCCGAT  
TGGACAATTTAAACCATTTCAGTTGCAATCAGCGTCTGAAAAAACTTAATAGTTACAACCTTTCAACAACGGATCT  
CTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAGTGTGAATTGCAGAATTCAGTGAATCATCG  
AATCTTTGAACGCACATTGCGCCCCCTGGTATTCCATGGGGCATGCCTGTTTCGAGCGTCATTTGTACCTTCAAGCTC  
TGCTTGGTGTGGGTGTTTGTCTCGCCTCCGCGTGTAGACTCGCCTCAAAACAATTGGCAGCCGGCGTATTGATTT  
CGGAGCGCAGTACATCTCGCGCTTTGCACTCATAACGACGACGTCCAAAAGTACATTTTTTACACTCTTGACCTCGG  
ATCAGGTAGGGATACCCGCTGAACCTAAGCATATCAATAAGCGGAGGAAAAGAAACCAACAGGGATTGCCCTAGT  
AACGGCGAGTGAAGCGGCAACAGCTCAAATTTGAAATCTGGCGTCTTTGGCGTCCGAGTTGTAATTTGCAGAGGG  
CGCTTTGGCATTGGCAGCGGTCCAAGTTCTTGAACAGGACGTACAGAGGGTGAGAATCCCGTACGTGGTTCGC  
TAGCCTTTACCGTGTAAGCCCCCTTCGACGAGTCGAGTTGTTTGGGAATGCAGCTCTAAATGGGAGGTAAATTTCT  
TCTAAAGCTAAATACTGGCCAGAGACCGATAGCGACAAGTAGAGTGATCGAAAGATGAAAAGCACTTTGGAAA  
GAGAGTTAAAAGCACGTGAAATTGTTGAAAGGAAAAAACACTTGAAA

13. ***Fusarium sp.*, MZ427927** (s1701-1-al1), 507 bp.

TTAACTCCCAACCCCTGTGACATACCTTAATGTTGCCTCGGCGGATCAGCCCGCGCCCCGTAAAACGGGACGGCCC  
GCCAGAGGACCCAACTCTAATGTTTCTTATTGTAACCTCTGAGTAAACAAACAAATAAATCAAACTTTCAACAA  
CGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGA  
ATCATCGAATCTTTGAACGCACATTGCGCCCCGCTGGTATTCCGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCT  
CAAGCCCCCGGGTTTGGTGTGGGGATCGGCTCTGCCTTCTGGCGGTGCCGCCCCGAAATACATTGGCGGTCTC  
GCTGCAGCTCCATTGCGTAGTAGCTAACACCTCGCAACTGGAACGCGGCGCGGCCATGCCGTAAACCCCAACTT  
CTGAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATAT

***Fusarium tricinctum***, MT446111.1, 534 bp., Percent identity 100%

TTTCCGAGTTAACTCCCAACCCCTGTGACATACCTTAATGTTGCCTCGGCGGATCAGCCCGCGCCCCGTAAAACGG  
GACGGCCCCGAGAGGACCCAACTCTAATGTTTCTTATTGTAACCTCTGAGTAAACAAACAAATAAATCAAAAC  
TTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGTAATGTGAATTGCAGA  
ATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCGCTGGTATTCCGGCGGGCATGCCTGTTTCGAGCGTCA  
TTTCAACCCTCAAGCCCCCGGGTTTGGTGTGGGGATCGGCTCTGCCTTCTGGCGGTGCCGCCCCGAAATACATT  
GGCGGTCTCGCTGCAGCCTCCATTGCGTAGTAGCTAACACCTCGCAACTGGAACGCGGCGCGGCCATGCCGTAAA

ACCCCAACTTCTGAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAATAAGCCGGAGG  
AAAAA

14. *Trichoderma* sp., MZ427928 (s1702-3-al8), 585 bp.

TCATTACCGAGTTTACAACCTCCCAAACCCAATGTGAACGTTACCAAACCTGTTGCCTCGGCGGGATCTCTGCCCCGG  
GTGCGTCGCAGCCCCGGACCAAGGCGCCCGCCGGAGGACCAACCAAACTCTTTTTGTATACCCCCTCGCGGGTTT  
TTTATAATCTGAGCCTTCTCGGCGCCTCTCGTAGGCGTTTCGAAAATGAATCAAACTTTCAACAACGGATCTCTTG  
GTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATC  
TTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTGTCCGAGCGTCATTTCAACCCTCGAACCCTCC  
GGGGGGTCTGGCGTTGGGGATCGGCCCTGCCTTGCCGGTGGACGTCTGCGAGATACAGTGGCGGTCTCGCCGCAG  
CCTCTCTGCGCAGTAGTTTGCACACTCGCATCGGGAGCGCGGCGGTCCACAGCCGTTAAACACCCAACCTCAGA  
AATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAACCATATCAATAA

*Trichoderma harzianum*, MT422092.1, 621bp., Percent identity 98.97%

TTCCCCGTAGGTGAACCTGCGGAGGGATCATTACCGAGTTTACAACCTCCCAAACCCAATGTGAACGTTACCAAACCT  
GTTGCCTCGGCGGGATCTCTGCCCCGGGTGCGTCGCAGCCCCGGACCAAGGCGCCCGCCGGAGGACCAACCAAA  
ACTCTTTTTGTATACCCCCTCGCGGGTTTTTATAATCTGAGCCTTCTCGGCGCCTCTCGTAGGCGTTTCGAAAATGA  
ATCAAACTTTCAACAACGGATCTCTTGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGA  
ATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTGTCC  
GAGCGTCATTTCAACCCTCGAACCCTCCGGGGGGTCTGGCGTTGGGGATCGGCCCTGCCTTGGCGGTGGCCGTCT  
CCGAAATACAGTGGCGGTCTCGCCGCAGCCTCTCTGCGCAGTAGTTTGCACACTCGCATCGGGAGCGCGGCGCG  
TCCACAGCCGTTAAACACCCAACCTCTGAAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATA  
TCAATAAGCGGAGGAA