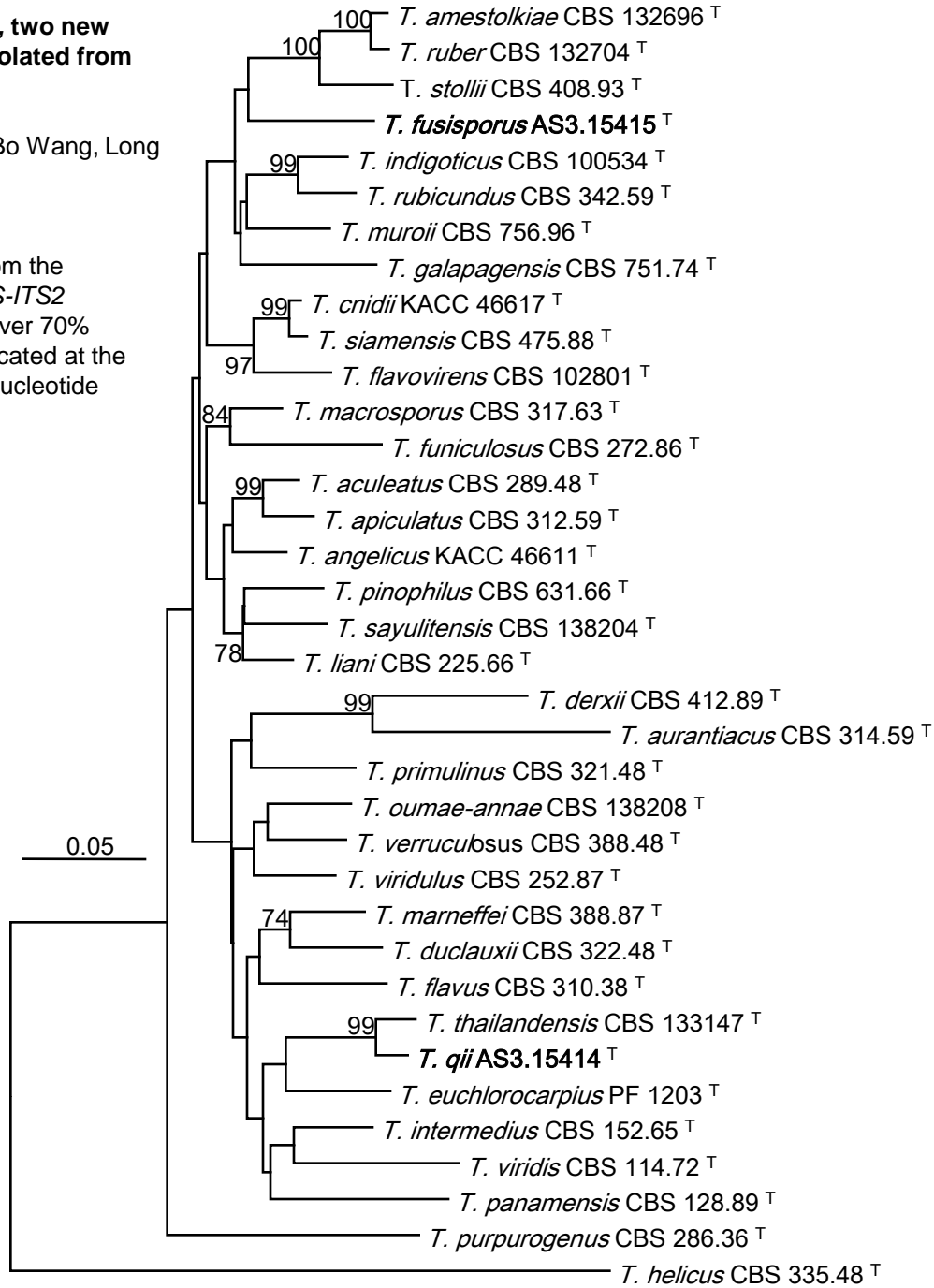


***Talaromyces fusisporus* and *T. qii*, two new species of section *Talaromyces* isolated from plant leaves in Tibet, China**

Qi-Ming Wang, Yong-Hong Zhang, Bo Wang, Long Wang

Figure S1. ML phylogram inferred from the combined *CaM*, *BenA* and *ITS1-5.8S-ITS2* sequences. Bootstrap percentages over 70% derived from 1000 replicates are indicated at the nodes. Bar = 0.05 substitutions per nucleotide position.



Supplementary dataset 1

>KF741975_Talaromyces_acleatus_ CBS 289.48 cmd

TG-GATATCTAT-TTGT--C-----GCAATGTTG---TGG-TGG--GTGGTTAGCTGACTA---CGGTTTGATG-AGTAGGACA
AGGATGGAGATGGTGAG---TCCGC-----CACGAA-C-AATAAC-----CAAA-AGACCTTGACC-GAAG-----GTGATCG
C-----AACGG-----ACAA-ATATTG-----ATAAAATT-GAA-----TAGGCCAAATCACAACCAAGGAACTGGGCA
CCGTCATGCGCTCTCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTGAC
AACAACGGCACAATCGATTCCCTGGTATGCTATAAA-----TCCT--TACGGGTTATTACG-----ATGGC---G
G-TACTAACTGC--T---G-CAGAATTCTTGACAATGATGGCCGCAAAATGAAGGATACCGACTCCGAGGAAGAGAT
CCGCGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741937_Talaromyces_amestolkiae CBS 132696

TG-GAAACTTGGTTTGT--C-----ACAATGTTG-----GC--GTGGTTAGCTGACCAG-CCGTTTTGATG-AATAGGACA
AGGATGGAGATGGTGAG---TCGC-----CGCGAA-C-AATAA-----ACACCTTGAAC-GAAC-----GTTACCGC---
---AGCCA-----ACAG-ACATTG-----ACCCTATC-GGA-----CAGGACAAATCACAACCAAGGAACTCGGCACA
GTCATGCGTTCTCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTGACAA
CAACGGCACAATTGATTTCCCTGGTATGACTGACCACC-----AACT--CGCAATATTTG-----ATGGC---AG-
TACTGACTGC--C---G-CAGAATTCTTGACAATGATGGCCGCAAAATGAAGGATACCGACTCCGAGGAAGAGATC
CGTGAGGCTTTCAAGGTGTTTGATCGTGACAACAATG

>KJ885259_Talaromyces_angelicus KACC 46611

TG-GATTTCCAC-TTGT--C-----GTAATGGTG-----G--GTGGTTAGCTGACTAG--CGTTTTGATG-AGTAGGACAAG
GATGGAGATGGTGAG---TCCGC-----CACGAA-C-GATAAC-----CAAA-AGACCTTGAAC-AAAG-----GTTATCGC---
---TACGA-----ACAG-ATATTG-----ACTATATC-GAA-----TAGGCCAAATCAGACCAAGGAACTGGGCACCG
TCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTGACAAC
AACGGCACAATCGATTTCCCTGGTATGATATAAT-----TGCT--TACGGTTTACTACG-----ATGGC---AG-TAC
TAACTGC--C---G-CAGAATTCTTGACAATGATGGCCGCAAAATGAAGGATACCGACTCCGAGGAAGAGATCCGC
GAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KF741950_Talaromyces_apiculatus CBS 312.59

TG-GATATCTAT-TTGT--C-----GCAATGTTG---CCG-TGG--GTGGTTAGCTGACTAG--CGGCTTGATG-AGTAGGAC
AAGGATGGAGATGGTGAG---TCCGC-----CATGAA-C-AATAAC-----CAAG-AGACCTTGAAC-ATAG-----GTGATCG
C-----AACGA-----ACAA-GTATTG-----ATAAAATC-GAA-----TAGGCCAAATCACAACCAAGGAACTGGGCA
CCGTCATGCGTTCTCTCGGCCAGAACCCCTCCGAATCCGAATTACAGGACATGATCAATGAGGTCGACGCTGACA
ACAACGGCACAATCGATTTCCCTGGTATGATATAAT-----TGCT--TACGGGTTATTACG-----ACGGC---AG-
TGCTAACTGC--C---G-CAGAATTCTTGACAATGATGGCCGCAAAATGAAGGATACCGACTCCGAGGAAGAGATC
CGCGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741951_Talaromyces_aurantiacus CBS 314.59

TGAAATATCTTC-CTGTCGC-----ATAGTATTT-----T---CTCGTT-GCTTACAGA-ATGTTTTAATGAAATAGGACAAG
GATGGAGATGGTGAGTG-ACGAC-----TGCGACAC-ACCAAC-----GATGTCGTATCGAAAGCAGATTCATCTACGA
TC-----TACGA-----ATAA-ATATTG-----ATAGAGTC-GGA-----CAGGTCAAATCACAACCAAGGAACTGGG
CACCCTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAAGACATGATCAACGAAGTTGACGCTG
ACAACAACGGCACAATTGATTTCCCTGGTACGAT-CATCACGCCGCAACCTGCTTTCA-----ATGGA
---AA-ACTGACCGC--C---G-CAGAATTCTTGACCATGATGGCCGCAAAATGAAGGATACCGACTCCGAGGAAGA
GATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAACG

>KJ885266_Talaromyces_cnidii KACC 46617

TG-ACTTTCTAC-TTAT--C-----GCAATGTTG---TGG-T-G--GTGGTTAGCTGACTAG-CCGTTTTGATG-AATAGGACA
AGGATGGAGATGGTGAG---TCGCCACGAACACAAA-C-AACAAC-----CAAA-CGACTTTGAAC-AAAG-----GCTAT

CA-----ACGG-----ACAG-TTATTG-----ACTCTATC-GAA-----TAGGTCAAATCACAACCAAGGAAGTGGGC
ACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTGACGCTGA
CAACAACGGCACAATCGATTTCCCTGGTATGACAAAGCGCACTAC-CACT--CGCAATATCAC-----ATGG
C---AG-TACTAACTGC--C---G-CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAG
AGATCCGCGAGGCCTTCAAGGTGTTTGACCGTGACAACAATG

>KF741959_Talaromyces_derxii CBS 412.89

TG-----CAGG-CTGT-C-----GCATTTTT---TTG-TGGTTGAGGTCA-CTAACCGG--TCTTTTAATG-AACAGGACAAG
GATGGAGATGGTGAAGTACCAG-----TACGGCAT-GCCGAC-----GAATATTGTCTCGAATAAAAG-----CTTGAATG
-----TACGG-----GCAG-ATACTG-----ATAGACTC-GAA-----CAGGTCAAGTCACTACCAAGGAAGTGGGCA
CCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAGTTGCAGGACATGATCAACGAAGTGCAGCTGAC
AACAACGGCACAATGATTTCCCTGGTACGATTCATCACTCTAGATGGT--GACA-----TCGACGATA
AAAAGTACAGC--C---A-CAGAATTCCTGACCATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAGA
TCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAACG

>KF741955_Talaromyces_duclauxii CBS 322.48

TG-GATTCCGGG-TTGT-C-----GCAATGTTG--TGG-TGG--GTGGTTAGCTGACTAG-CCGTTTTGATG-AATAGGA
CAAAGACGGAGATGGTGAAGTGA--CGC----CACGAA-C-ACCAAC-----GATATACTCTTGAAC-AAAG-----GCTAT
TGC-----TGCGA-----ACAA-ATATTG-----ATTATGCC--AA-----CAGGTCAAATCACAACCAAGGAAGTGGG
CACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTGATGCTG
ACAACAACGGCACAATCGATTTCCCTGGTATGATACAGCTTC----TACTTACCGCAACTGTTTCCGATCGCA-----
-AGCGC--AGATACTGACCGT-C---G-TAGAATTCTTGACAATGATGGCTCGCAAATGAAGGATACCGACTCTGAG
GAAGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KJ885271_Talaromyces_euchlorocarpus PF 1203

TGAGATACCCGG-TTGTGCG-----GCAATGTTATGTTGG-TGG--GTGGTTATCTAACTAG-CCGTTTTGATG-AATAG
GACAAGGATGGAGATGGTGAAGTATCCGC----CACGAA-C-ACCAGC-----GACATGGTCTTTAGAACGAGG-----
CTATACAGAATAGATACACGG-----ACAGCATGTTG-----ATTATATC-GAA-----TAGGTCAAATCACAACCAAG
GAACTGGGCACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGT
CGACGCTGACAACAACGGCACAATCGATTTCCCTGGTATGATACCAGCACGTCTGCGCTGAATAGATACG-----
-----GTGGC--GG-GACTAACTGC--C---TATAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACT
CCGAGGAAGAGATCCGCGAGGCCTTCAAGGTGTTTGACCGCGACAACAATG

>KF741933_Talaromyces_flavovirens CBS 102801

TG-GCTATCTAC-TTAT-C-----GCAATGTTG--TGG--GA--GTGATTAGCTGACTAG-CCCCTTTGATG-AGTAGGACA
AGGACGGAGATGGTGAAG--TCGCCACGAACACGGA-C-AACAAC-----CAA-AGATTCTCAAT-AAAG-----GCTAT
CG-----ACGA-----ATAA-ATGTTG-----ACTTTATT-GAA-----TAGGTCAAATCACAACCAAGGAAGTGGGC
ACCGTCATGCGTTCTCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTGCAGCTGA
CAACAACGGCACAATCGATTTCCCTGGTATGACAAAGCACACTAT-CACG---T-CAATATTCC-----ATGGC-
--AG-TACTAACTGC--C---G-CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAG
ATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KF741949_Talaromyces_flavus CBS 310.38

TG-GATTTCCGG-TTGT-C-----GCAATGTTG--TGG-TGG--GTGGTTAGCTGACTAG-CCGTTTGGATG-AGTAGGA
CAAGGATGGAGATGGTGAAGTGAAC-----CACGAA-C-ACCAAC-----GATA-CAGCAACGAAT-AAGTACTGTGCTT
ATGAT-----TGCGA-----GCAAATTATTG-----ACGGGGACTGAA-----CAGGTCAAATCACAACCAAGGAAGT
GGGCACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTGCAGC
CTGACAACAACGGCACAATCGATTTCCCTGGTATGGCCAAAC-----CTGTCTACGGTTATTACA-----AT
GGC--AG-AACTAACTGC--C---AACAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGATTCCGAGGA

AGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGTGATAACAATG

>KF741945_Talaromyces_funiculosus CBS 272.86

TG-GATTCCCGG-TTGT--C-----GCAATGTTA--TG-----GTGGTTAGCTGACTAG-CCGTTGAAATA-ATTAGGACAA
GGATGGAGATGGTGAG---TCCGC-----CACGAA-T-GATAAC-----CAGA-TGATCTTGAGC-AAAG-----TTTATCGC--
-----ATCGA-----ATAT-ATATTA-----ACTATATT-CAA-----AAGGCCAAATCACAACCAAGGAACTGGGCACTGT
CATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAATGAAGTGCATGCTGACAACAA
CGGAACAATCGATTTCCCTGGTATGACAACTGCA----AACT---CTCAGTTTTCT-----ACCAC---AG-TACT
AACTAA--C----A-CAGAATTCTTGACTATGATGGCCCGCAAATGAAGGATACTGACTCCGAGGAAGAGATCCGTGA
GGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741966_Talaromyces_galapagensis CBS 751.74

TG-GATTTCTGG-TTGT--C-----GCATTGTTT--TGG-TGG--CTGGTTAGCTGACTAG--CGTTTTGATG-AGTAGGACA
AGGATGGTGATGGTGAG---TCCGC-----CACGAA-C-A-CGAT-----GATA-TCGTCTCGAAC-AAAG-----GTTGTTTC-
-----ACGA-----ACAG-ATATTG-----ATAAACTC-CAA-----TAGGCCAAATCACAACCAAGGAATTGGGCACT
GTCATGCGTTCCCTCGGTCAGAACCCCTCCGAATCTGAATTGCAGGACATGATCAACGAAGTGCACGCTGACAA
CAACGGCACAATTGATTTCCCTGGTATGACAAACCACA----AGCT---CGCGATTTTT-----ATGGCGATAC
TTACTAACTGC--C----G-CAGAATTCTTGACGATGATGGCCCGTAAATGAAGGATACCGACTCCGAGGAAGAGATC
CGTGAGGCATTCAAGGTGTTTGACCGTGACAACAATG

>KF741931_Talaromyces_indigoticus CBS 100534

TG-GATTCCTGG-TTGT--C-----GCAATGTTG--TGG-TGG--GTGGTTAGCTGACTAG--CGTTTTGATG-AGTAGGAC
AAGGATGGTGATGGTGAG---TTCGC-----CACGAA-C-AACGAC-----CAAA-AGACCTTGAAC-AAAG-----GTCATT
GC-----TACGA-----ACAG-ATATTG-----ACTATATC-GAA-----TAGGTCAAATTACGACCAAGGAATTGGGCA
CCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTGCACGCTGAC
AACAACGGCACAATTGATTTCCCTGGTATGACGAACCACACCAC-CACT---CGCAATATTAC-----ATAGC-
--AG-TACTAACTGC--T----A-CAGAATTCTTGACAATGATGGCTCGCAAATGAAGGATACCGACTCCGAGGAAGAGA
TCCGCGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KJ885290_Talaromyces_intermedius CBS 152.65

TG-GATTCCTAG-TTGT--C-----GCAATGTTATGCTGG-TGG--GTGGCTAGCTGATTAG-CCGTTTTGATG-AGTAGG
ACAAGGATGGAGATGGTGAGTGATCCGC-----CTCGAC-C-ACCGAC-----GAGATAGTCTTGAAC-AAAG-----GC
TTTTGT-----TCCGATGTGGACAGCATATTG-----ACTATATCGGAA-----TAGGTCAAATTACAACCAAGGAG
CTCGGCACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTGCAG
CGCTGACAACAACGGCACAATTGATTTCCCTGGTATGACACACTACA-----ACT---CGCAATCGTCT-----A
TGGC---AGTTGCTAACTGCTAC----A-CAGAATTCTTAACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAG
GAAGAGATCCGGGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KJ885257_Talaromyces_liani CBS 225.66

TA-GCAATCTGG-TTGT--C-----GCAATGTTG--TGG-TGG--GTGGTTAGCTGACTAG-CCGTTTTGATG-AGTAGGA
CAAGGATGGAGATGGTGAG---TCGGC-----CACGAA-C-AATATC-----CAAA-AGGCGTTGAAC-AAGG-----GTTAT
CGC-----CGCGA-----ACAG-ATATTG-----ACTATATC-GAA-----TAGGTCAAATCACAACCAAGGAACTGGG
CACTGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATGCAGGACATGATCAACGAAGTGCACGCTG
ACAACAACGGCACAATCGATTTCCCTGGTATGATATAAT-----TGCT---CACAGGATATTACG-----ATGGC---
AG-TACTAACTGC--C----G-CAGAATCCTGACAATGATGGCCCGCAAATGAAGGACACCGACTCCGAGGAAGAG
ATCCGCGAGGCATTCAAGGTGTTTGACCGTGACAACAATG

>KF741952_Talaromyces_macrosporus CBS 317.63

TG-GATTCCTGG-TTGT--C-----GCAATGT-----G--GTGATTCGCTGACTAG-CCG-TTTGATG-CGCAGGACAAG
GATGGAGATGGTGAG---TCCGC-----CACGAA-C-AATAGC-----CAAA-AGGCCTCGAAC-AAAG-----GCCGTGCG--

-----TGCGA-----ACAG-ATATTG-----ACTATATC-GAA-----TAGGCCAAATCACAACCAAGGAACTGGGCACC
GTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAACTGCAGGACATGATCAACGAGGTGCGATGCTGACAA
CAACGGCACAATCGACTTCCCTGGTATGACAACTACA-----AACT--CGCATTCT-----ATGGC---AG-TA
CTAACTGC--C---G-CAGAATTCTTGACAATGATGGCCCGCAAGATGAAGGATACCGACTCCGAGGAAGAGATCCG
CGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741958_Talaromyces_marneffeii CBS 388.87

TG-GATTTCTGG-TTGT-C-----GCAATGTTG---TGG-TGG--GTGGTTCGCTGACTAG-CCGTTTGGATG-AATAGGA
CAAGGATGGTGTGAGTGA--CGC-----CACGAA-C-ACCAGA-----CATATAGTCTTCGAACAAAA-----GTTAT
TAC-----TGCGA-----ACAG-ATATTA-----ATAACATC--AA-----TAGGTCAAATTACAACCAAGGAACTGGGCA
CCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTGCGACGCTGAC
AACAACGGCACAATCGATTCCCTGGTATGATGCAGCCTC-----TATTTATCGCAGCCGTTTCCGATCATA-----AG
GGC--AGATACTGACTGC--C---T-TAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGA
AGAGATCCGCGAGGCTTTCAAGGTGTTTGATCGTGACAACAATG

>KJ885274_Talaromyces_muroii CBS 756.96

TG-GATTTCTAC-TTGT-C-----GCAATGTTG---TGG-TGG--GTGGTTAGCTGACTAG-CCGTTTTGATG-AGTAGGAC
AAGGATGGAGATGGTGTGAG--TCCGC-----CACGAA-A-AATAAC-----CAA-AGGCCTTGAAC-AAAG-----GTTATCG
C-----TGCGA-----ACAG-ATATTG-----ACTATGTC-GAA-----TAGGTCAAATCACAACCAAGGAACTGGGCA
CCGTCATGCGTTCTCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTGCAGCGCTGAC
AACAACGGCACAATCGATTCCCTGGTATGACAAACCACA-----AGCT--CGCAATAATCT-----ATGGC---A
G-TACTAACTGC--C---G-CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAAGAAGAGAT
CCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KJ775425_Talaromyces_oumae-annae CBS 138208

TG-GATTTCTGA-TTGA-C-----GCAATGTTT---G-TGATCGTGGTTAGCTGACTAG-CCGTTTTGATG-AGTAGGAC
AAGGATGGAGATGGTGTGAGT-ACCGC-----CACGAA-C-GTCGAT-----GATACAGTCAACGAAT-AAGGGCTATCCT
TATGAT-----TGCGA-----ACAGCATATTG-----ATGGTATTTGAA-----CAGGTGAGATCACCAACCAAGGAATT
GGGCACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTGCGACG
CTGACAACAACGGCACAATCGATTCCCTGGTATGACATAACC-----TATCAGACGCAGCCATATATGACTATCGA---
-----GTGGC---AG-AACTAATTGC--C---A-CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCG
AGGAAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KF741936_Talaromyces_panamensis CBS 128.89

TG-GATTTTGTGTTGGT-C-----GCAATGTTG---TGG-TGG--GCTGTTAGCTGACGCG-CCGTGTTGATG-AGTAGGA
CAAGGATGGCGATGGTGTGAGTATCCGC-----CACGAG-C-ACCAAC-----AATG-CAGTTTTGAGC-AAGG-----GATA
TGATGATGAAACATGA-----ACAACGGATTG-----ATTGTATCTAAA-----TAGGTCAAATCACAACCAAGGAA
CTCGGCACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTGCGA
CGCCGACAACAACGGCACAATCGATTCCCTGGTATGAGCCAACCCGTCTA-CGTTTGTTACG-----
-GGGGC---AG-AACTAACTGC--C---TACAGAATTCTTGACAATGATGGCTCGCAAATGAAGGATACCGACTCCGAA
GAAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KF741964_Talaromyces_pinophilus CBS 631.66

TG-GAAATCTGG-TTGT-C-----GCAATGTTG---TGG-TGG--ATGGTTAGCTGACTAG-CCGTTTTGATG-AGTAGGAC
AAGGATGGAGATGGTGTGAG--TCCGC-----CACGAA-C-A-CGAC-----GATATTTGTCTCGAAC-AAAG-----GTTTTT
C-----ACGA-----GCAT-ATATTG-----ATAAAATC-TAA-----TAGGCCAAATTACAACCAAGGAACTGGGCACC
GTTATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAACTGCAGGACATGATCAACGAAGTGCAGCGCTGACAA
CAACGGCACAATCGATTCCCTGGTATGATATAAT-----TGTT--CACGGGTTTATACG-----ATGGC---AG-T
ACTAACTGC--C---G-CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAGATCC

GTGAAGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741954_Talaromyces_primulinus CBS 321.48

TT-CATTCTGG-TTGT--C-----GCAATGTTG---TGG-TGG--GTGGTTAGCTGACCAG-CCGTTTTGATG-AGTAGGAC
AAGGATGGAGATGGTGAGTG-ACCAC-----CGAA-C-ACCAAC-----GTTACAGTCAACGAAT-AAGGGCTATCTTTA
TGAT-----TGGGA-----ACAG-GTATTA-----ATCGTC--GAA-----TAGGTCAAATCACAACCAAGGAACTGGG
CACCGTATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAGTTGCAGGACATGATCAACGAAGTTCGACGCTG
ACAACAACGGCACAATCGATTTCCTGGTATGACTCATCAGTCTATTGCTTGATACG-----ATGGC
---AG-TACTGACCGC--T---G-CAGAATTTTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGA
GATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KF741947_Talaromyces_purpurogenus CBS 286.36

TGCAATCATTGT-TTG-----GGTATGTTG---T---TGG--CCGGTTATCTAATTAGCCCGTTTGGATG-AGTAGGACAA
GGATGGTGATGGTGAG---TTCACCCGGACACGCAGCGATCAAC-----GATA-AGACTCTGA-----
-----ACAGGATATTT-----ACTATATC-GAT-----TAGGTCAAATCACAACCAAGGAACTGGGCACCGTCATG
CGCTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTTGACGCTGACAACAACGG
CACAATCGATTTCCCTGGTATGATGA-----CTCTCGCTACAATCTACT-----GCGGATA-GGTAAGTATGAT
TGA--TAATGGATAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAGATCCGTGA
GGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741938_Talaromyces_ruber CBS 132704

TG-GAAACTTGGTTTGT-C-----ACAATGTTG-----GC--GTGGTTAGCTGACTAG-CCGTTTTGATG-AATAGGACA
AGGATGGAGATGGTGAG---TCGC-----CGCGAA-C-AATGAA-----ACACCTTGAAC-GAAC-----ATTACCGC---
---AGTCA-----ACAG-ACATTG-----ACCCTATC-GGA-----CAGGACAAATCACAACCAAGGAACTCGGCACA
GTCATGCGTTCTCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTTCGACGCTGACAA
CAACGGCACAATTGATTTCCCTGGTATGACTGACCACC-----AACT--CGCAATATTTG-----ATGGC---AG-
TACTGACTGC--C---G-CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAGATC
CGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741956_Talaromyces_rubicundus CBS 342.59

TG-GATTTCTTC-TTGT--C-----GCAATGTTG-----TGG--GTGGTTAGCTGACTAG--CGGTTTAATG-AGTAGGACAA
GGATGGAGATGGTGAG---TTCGC-----CATGAA-C-AACGAA-----CAAA-AGACCTTGCTC-AAAG-----GTCATTGC-
-----TGCGA-----ACAG-ATATTG-----ACTATATC-GAA-----TAGGTCAAATCACAACCAAGGAACTGGGCACT
GTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTTCGACGCTGACAA
CAACGGCACAATCGATTTCCCTGGTATGACGAACCACACTAC-CACT--CGCAATATTCC-----ATAGC---A
G-TACTAAGTGC--T---A-CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAAGAAGAGATC
CGTGAGGCTTTCAAGGTGTTGATCGATCGTGACAACAATG

>KJ775422_Talaromyces_sayulitensis CBS 138204

TG-CAAATCTGG-TTCT--C-----GCAATGTTG---TGG-TGG--GTGGTTAGCTGACTAG-CCGTTTTGATG-AGTAGGA
CAAGGATGGAGATGGTGAG---CCCGC-----CACGAA-C-AATAAC-----CAAA-AAGCCTTGAAC-AAAG-----GTTGG
TTC-----GCGA-----ACAA-ATATTG-----ATATGCTT-GAA-----TAGGCCAGATCACAACCAAGGAACTGGGC
ACCGTCATGCGTTCTCTCGGCCAGAACCCTCCGAATCCGAACTGCAGGACATGATCAATGAAGTGGACGCTGA
CAACAACGGCACAATCGATTTCCCTGGTATGATATAAT-----TGCT--CACGGATTATTACG-----ATGGC---A
G-TACTAATTGC--C---G-CAGAATTCTTGACAATGATGGCACGCAAATGAAGGATACCGACTCCGAAGAAGAGAT
CCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741960_Talaromyces_siamensis CBS 475.88

TG-ACTTTCTAC-TTAT--C-----GCAATGTTG---TGG-T-G--GTGGTTAGCTGACTAG-CCGTTTTGATG-AATAGGACA
AGGATGGAGATGGTGAG---TCGCCACGAACACAAA-C-AACAAC-----CAAA-CGACTTTGAAC-AAAG-----GCTAT

CA-----ACGG----ACAG-TTATTG-----ACTCTATC-GAA-----TAGGTCAAATCACAACCAAGGAACTGGGC
ACCGTCATGCGTTCCCTCGGCCAGAACCCCTCGGAATCCGAATTGCAGGACATGATCAACGAGGTGACGCTGA
CAACAACGGCACAATCGATTTCCCTGGTATGACAAAGCACACAAC-TACT---CGCAATATTCC-----ATGG
C---AG-TACTAACTGC--T---G-CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGA
GATCCGCGAGGCCCTCAAGGTGTTTGATCGTGACAACAATG

>KF741957_Talaromyces_stipitatus CBS 375.48

TGCAGTGATTGT-TTG-----GTAATGGT-----GTGGTTATCTAACTAA-CCGTTTCGATC-AATAGGACAAGGA
TGGCGATGGTGAG---TTCACCCAAACACGCAGC-ACCAAC-----GATAGGGTATATTAGT-----ATGATC-----
TACGG----ACGG-ACATTG-----ACAATATT-GAT-----CAGGCCAAATTACCACCAAGGAACTGGGCACCGTC
ATGCGTTCGCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTTGACGCTGACAACAA
CGGCACAATCGATTTCCCTGGTATGACGACTCTAC----TACCCCTTACAATCCAGT-----GTGGATA-GGT
GACTTACTGA--TGCTGGCTAGAATTTTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAGA
TCCGTGAGGCTTTCAAGGTCTTTGATCGCGACAACAATG

>JX315646_Talaromyces_stollii CBS 408.93

TG-GATTCCTTG-TTGT--C-----GCAATGCTA---GCG-TGG--GTGGTTTGCTGACGAG-CCGCTTGATG-AGTAGGA
CAAGGATGGAGATGGTGAG---TCGC----CGCGAA-C-AATGAA-----GCTGCTTGAAC-GAAT-----C-----
-AGCCA----ACAG-ACCTTA-----ACTCTATC-GAA-----CAGGACAAATCACAACCAAGGAACTTGGCACCGT
CATGCGTTCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTGATAACAA
CGGCACAATCGATTTCCCTGGTATGATAGACCACC----AGCT---CGCACTTTTTG-----ATGGC---AG-CAC
TAACTGC--C---G-CAGAATTTTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAGATCCGT
GAGGCTTTCAAGGTGTTTGACCGTGATAACAATG

>KF741940_Talaromyces_thailandensis CBS 133147

TG-GGTTTCCGG-TTGT--C-----GCAATGTTG---TGGCTGG--GTGGTTAGCTGACTAG-CCGTTTTGATG-AATAGGA
CAAGGATGGAGATGGTGAGTGAGCCGC-----AATGAT-C-ACCAAC-----GATGCAATCTTTGGACAAGAA-----TAT
CAG-----CACGA-----ACAGTATCCTG-----ACTATATCTGAA-----TAGGTCAAATCACAACCAAGGAACTGG
GCACCGTCATGCGTTCCTCGGCCAGAACCCCTCCGAATCCGAGCTGCAGGACATGATCAACGAAGTCGACGCTG
GACAACAACGGCACAATCGATTTCCCTGGTATGAAACAAT-----TGCT---TACGGGCGTTACG-----ATGG
C---AGAACTAACTGC--C---TACAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAG
AGATCCGTGAGGCTTTCAAGGTGTTTGATCGCGACAACAATG

>KF741944_Talaromyces_verruculosus CBS 388.48

TG-AATTTCTGG-TTAT--C-----GCAATGTTG---TGG-TGG--GTAGTTAGCTGACTAG-CCGTTTTGTTG-AGTAGGAC
AAGGATGGAGATGGTGAGTG-ACCGC-----CACCAA-C-ACCGAC-----GATC-TAGTCTCGAAC-AAAG-----GCTAT
TTG-----TACGA-----TCAG-ATATTG-----ACGATATCTGAA-----TAGGTCAAATCACAACCAAGGAACTGGG
CACTGTGATGCGTTCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTTGACGCTG
ACAACAACGGCACAATCGATTTCCCTGGTATGACATAACC-----TATCAACCGCAAACATATATGACAGTTGG-----
ATGGC---AG-AACTAACTGC--C---A-CAGAATCTTGACAATGATGGCTCGCAAATGAAGGATACCGACTCCGAGG
AAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KF741935_Talaromyces_viridis CBS 114.72

TG-TATTTCTTG-TTGT--C-----GCAATGTTG---TGG-TGG--GTGGTTAGCTGACTAG-TCGTTTTGATG-AGTAGGAC
AAGGATGGAGATGGTGAGTCAACCGC-----CACG-----CAAC-----GATAAATCTTTGAAC-AAAATCTACTATTGT
AAT-----TACGA-----ACAAAATATTG-----ACCATATCTGAA-----AAGGTCAAATCACAACCAAGGAACTGGG
CACCGTCATGCGTTCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTG
ACAACAACGGCACAATCGATTTCCCTGGTATGACAGA-CACACTAC-AACG---CACAATCGTCT-----ATG
GC---AGAACTAACTGC--C---GATAGAATCTTGWCAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGA

AGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KF741943_Talaromyces_viridulus CBS 252.87

TG-GATTTCTGG-TTGT-C-----GCAATGTTG---TG--TGG--GTAGTTAGCTGACGAG-CCGTTTTGATG-AGTAGGAC
AAGGATGGAGATGGTGAGTG-ACCAC----CACAAA-C-ACCGGC-----GATA-TGGTCTTGAAC-CGAG-----GTTATT
AC-----TACGA-----ACAT-ATATTG-----ACGGTATTTGAA-----CAGGTCAAATCACAACCAAGGAACTGGGC
ACCGTCATGCGTTCCCTCGGCCAGAACCCTCTGAATCCGAATTGCAGGACATGATCAACGAGGTGCGACGCTGA
CAACAACGGCACAATCGATTTCCCTGGTATGACCCAACACGTCTA-CGCTGAACACG-----ATGGC-
--GG-TACTAACTGC--C----A-CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAG
ATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KP765382_Talaromyces_qii_AS3.15414

TG-GTTTTCCGG-TTGT-C-----GCAATGTTG---TGG-CGG--GTGGTTAGCTGACTCG-CCGTTTTGATG-AGTAGGA
CAAGGATGGAGATGGTGAGTGAGCCGC-----AATGAT-C-ACCAAC-----GATGCAGTCTTTGGACGAGTA-----AA
TCAG-----CACGA-----ACAGTATCCTG-----ACTATATCTGAA-----TAGGTCAAATCACAACCAAGGAACTG
GGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATGCAGGACATGATCAACGAAGTGCAGC
CTGACAACAACGGCACAATCGATTTCCCTGGTATGACACAATC-----ATCT---TACGGTCGCTACG-----AT
GGC---AGAGACTAACTGC--C----TACAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGG
AAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATG

>KP765383_Talaromyces_fusisporus_AS3.15415

TG-GATTCCTGG-TTGTGCGTGTGTTGTGCAATGCTA---TAG-CGG--GCGGTTAGCTGACTAG-CCGTTTTGATG-AAT
AGGACAAGGATGGAGATGGTGAGTTTCTTAC--GAACACGAA-C-GACAAC-----GATACGATTTTTGGA--GAAT----
-ATTATGAC-----TACGA-----ACAACATATTG-----ATAAAGTC-CAA-----TAGGTCAGATCACAACCAAGGAA
CTGGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCTGAATTGCAGGACATGATCAACGAAGTGCAG
CGCTGACAACAACGGCACAATCGATTTCCCTGGTATGACAGTACACA-----AAAT---TGCAATTTTTGG-----
AGGGC---AG-TACTAACTGC--C----G-CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAG
GAAGAAATCCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATG

>KJ885289_Talaromyces_helicus CBS_335.48

TG-----ACGTTTTGA-----GCAAGAATT---GTG-TGGCAGCAATCTAATATTTTATGATCTTGATGATG-TACAGGACAA
AGATGGCGATGGTGAG---TTTGT-----CGAGAG-C-ATTTACTCCGAATTGCAGATAAGCAATCAAC-GAAGAAAAAAG
GGGTGCA-----CATGG-----ACACAAACCTGTGAATACTGTACTAAAAGCGTGATCGACGTTGGCCAGGTCAAAT
CACAACCAAGAAGTCCGGTACCGTCATGCGCTCTCTCGGCCAGAACCCTTCCGAATCCGAATTGCAGGACATGAT
CAACGAAGTCGACGCTGATAACAACGGCACAATTGACTTTCTGGTATGATCAAAATCCGTCTCTACT---CCCCT
GTTTTGCCAGCTCCCCCTCGCAGTGTGAT---TAATAGAAAGGGT-----ATTAGAATTCTTGACCATGATGGCTCGC
AAAATGAAGGATACCGACTCCGAAGAAGAAATCCGCGAGGCATTCAAGGTGTTTGACCGCGACAACAATG

Data S1. The sequence alignment of *CaM*.

Supplementary dataset 2

>KF741929_Talaromyces_acleatus_ CBS 289.48 bt

GTGAGTTTG-ACTCT-CGAC-----CCAAGCTTTCTA-TCAATTGTCGCGAC-AACACGCT-----GACTCT-TTCCAGGC
AAATCATCTCTGCTGAGCATGGTCTCGATGGCTCTGGTGTGTAA-----GTATC---CATGA-ATGG-AATCCAGCTAC
AATCCGACA--A-TATCTGATAATC-AACAGCTACAATGGCTCCTCTGACCTCCAGTTGGAGCGTATGAACGTCTACT
TCAACGAGGTGCGT-----CG-----AAC----CAAT-CCACCAAAT-AACGA--A-ACAA-----AC---TCACA
A-TG--G--TA-TAGGCCTCCGGCAACAAATACGTCCCCCGTGCTGTCCTCGTCGACTTGGAGCCCCGG

>JX315623_Talaromyces_amestolkiae CBS 132696

GTGAGTTTG-A--CT-CGTC-----CCAAGC-TACTA-TCAATTGTCGCGAC-AGCACGCT-----GACT-T-ATCCAGGCAA
ATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--TCACAG-TTCG-AATACACCTACAG
TCCGACA--A-CATCTGATCATC-GACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTT
CAACGAGGTGCGT-----TA-----GAAAG---TCTC-TCGACTCCT--ATAG--A-ACAG-----AC---ACTCAT-
TC--A--TC-TAGGCCTCCGGCAACAAATACGTCCCCCGTGCCGTCCTCGTCGATTTGGAGCCCCGG

>KF183640_Talaromyces_angelicus KACC 46611

GTGAGTTTT-A--CT-CGAC-----CCGAACTTTCTA-TCAATTGTCGCGAC-AACACGCT-----GACT-T-TTCCAGGCAA
ATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--ACATGA-TTCG-ATTCCAGCTACAA
TCCAACA--A-TATCTGATCATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTC
AACGAGGTGCGT-----CA-----GAC----GATT-CCACCATATAACAA--A-ACAAA-----AC---TCATCG--
G--G--TA-TAGGCCTCCGGCAACAAATACGTCCCCCGTGCTGTCCTCGTCGACTTGGAGCCCCGG

>KF741916_Talaromyces_apiculatus CBS 312.59

GTGAGTTTG-ACTCT-CGACA-----CCAAGCTTTCTA-TCAGTTGTCGCGTC-AACACGCT-----GACTCTGTCCCAG
GCAAATCATCTCTGCTGAGCACGGTCTCGATGGCTCCGGTGTGTAA-----GTATC---CACGG-TTCG-AATCCAGG
TACAATTCGACA--A-TATCTAATAATC-AACAGCTACAATGGCTCCTCTGACCTCCAGTTGGAGCGTATGAACGTCTA
CTTCAACGAAGTGCCT-----CG-----AAAC----CAAT-CCACCATAT-AACGA--A-ACAA-----AC---TCA
CAG-TG--G--TA-TAGGCCTCCGGCAACAAATACGTCCCCCGTGCTGTCCTGGTTCGACTTGGAGCCCCGG

>KF741917_Talaromyces_aurantiacu CBS 314.59

GTGTGTAATAA-----AGAC-----TTGG-TCAATTGTCGCCACAAAAAAGCT-----GAAT-T-TTCTAGGCAAATCAT
CTCTGCTGAGCACGGTCTCGATGGCTCCGGTGTGTAA-----GTGTTACAAACCA-TTCG-AATGCAGTTATAATCC
GACA--C-CATCTGATCATC-AATAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAAC
GAGGTGCGTGGAACAACCATCA-----GAAA-----AT-CAATCGAATGCTTGG--A-----AC---TCATCT
CTC--GAATA-TAGGCCTCCGGCAATAAGTACGTCCCCCGTGCCGTCCTTGTTCGACTTGGAGCCCCGG

>HQ156944_Talaromyces_calidicanus CBS 112002

GTGAGTTTG-ACCTT-CACC-----CCAAATTTCAACTCAATTATCGCGAC-AACACGCTGACTCGGACTCT-TCCCA
GGCAAATTATCTCCGCTGAGCACGGTCTCGACGGCTCCGGTGTGTAA-----GTATT--ACACTA-TTCA-AATCCAG
CTACAATCCGACA--AATATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTT
TACTTCAACGAGGTTTCGT-----CA-----GAC----CCAT-CCACCTCATAAACCGCAA-ACAA-----GC---
TCATGATCG--A--TA-CAGGCTCCGGCAACAAATATGTCCCCCGTGCTGTCCTCGTCGACTTGGAGCCCCGG

>KF183641_Talaromyces_cnidii KACC 46617

GTGAGTTTG-A--CT-CGAC-----CCAAACTTTCTA-TCAATTGTCGCGAC-AACACGCT-----GACT-T-TTTCAGGCAA
ATCATCTCTGCTGAGCACGGTCTTGTGGCTCTGGTGTGTAA-----GTATT---CACGAATTCG-AATCCAGCTACAA
TCCGACA--A-TATCTGATCGTC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTC
AACGAGGTGCGT-----CG-----AAC----CAAT-CCACCATAT-AACGA--A-ACAA-----AC---TCACAA-T
G--G--TATTAGGCCTCCGGCAACAAATACGTCCCCCGTGCTGTCCTCGTCGACTTGGAGCCCCGG

>JX494306_Talaromyces_derxii CBS 412.89

GTGAGTTCTGACT---CGACTG-----TAAAAGTCTCAG-TCAATTGTGCGGACAAACATGCT-----GACT-T-TACCAGGC
AAATCATCTCTGCCGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTGTTGCAAACGA-CTCG-GATCCAAA
TACAAGCCGATAGTA-TATCTGATTATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTC
TACTTCAATGAGGTGCGTCAAATTAACCACCG-----AAAA----AAAC-CCATCGAATGCTTGA-----A
C---TGATGTTTC--GAATA-TAGGCCTCCGGCAACAAATACGTGCCCCGTGCTGTCTCGTCTGACTTGGAGCCCCGG

>JX091384_Talaromyces_duclauxii CBS 322.48

GTGAGTTTG-ACCTT-CACT-----CCGAATTTTCAAGTCAATTGTGCGGAT-AACACGCTGACTCTGACTCT-TTCCA
GGCAAATTATCTCTGCTGAGCACGGTCTCGACGGCTCCGGTGTGTAA-----GTATT--ACTCAA-TTCA-AATCCAG
CTACAAATCCGACA--AGTATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTT
TACTTCAACGAGGTTTCGT-----CA-----GAC----CCAT-CCACACCATAAACCGCAA-ACAA-----GC---
TCATGATCG--A--TA-CAGGCTTCCGGCAACAAATATGTCCCCCGTGTCTCCTCGTCTGACTTGGAGCCCCGG

>KJ865733_Talaromyces_euchlorocarpus PF 1203

GTGAGTTGG-ACTTT-CGACAA-----AAAAACTTTTCAAGTCAATTGTGCGGAC-ACCACGCT-----GACTCT-TTGCAGG
CAAATCATCTCCGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTGTT-GGCAAAA-TTCGAAATCCAG
CTACAAATCCGACA--A-TATCTGATAATC-ACCAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTC
TACTTCAACGAGGTGCGT-----TA-----AGAA----CATCATCAAATAAACCGAAAGACAAAAAC-----A
C---TCATCGTTC--G---A-TAGGCTTCCGGCAACAAATATGTCCCTCGTGTCTCCTCGTCTGACTTGGAGCCCCGG

>JX091376_Talaromyces_flavovirens CBS 102801

GTGAGTTTG-A--CT-CGAC-----CCAAACTTTTCTC-TCAATTGTGCGGAC-AAAACCCT-----GACT-T-TTTCAGGCAA
ATCATCTCTGCTGAGCACGGTCTCGATGGCTCCGGTGTGTAA-----GTATT---CACCA-TTCG-AATCCAGCTACAA
TCCGACA--A-TGTCTGATCGTC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGCTACTT
CAACGAGGTGCGT-----CG-----AAC----AAAT-CCACCATAT-AACGA--A-ACAAATAAAGAAACAGAC---T
CACAA-TG--G--TA-TAGGCCTCCGGCAACAAATACGTCCCTCGTGTCTCCTCGTCTGACTTGGAGCCCCGG

>JX494302_Talaromyces_flavus CBS 310.38

GTGAGTTTG-ACTCT-CGAC-----CGAAACTC-----TCAATTGTGCGGAC-AACACGCT-----GACT-T-TTCCAGGCAAA
TCATCTCCGCTGAGCACGGTCTCGACGGCTCCGGTGTGTAA-----GTATT--ACACGA-TTCA-AATCCAGCTACGA
TCCAACA--A-TATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTC
AACGAGGTGCGT-----CA-----AAC----CACT-CCACCTAATAAACGGAAG-ACAA-----AC---TCATGA
TCG--A--TA-TAGGCTTCCGGCAACAAATATGTCCCTCGTGTCTCCTCGTCTGACTTGGAGCCCCGG

>JX091383_Talaromyces_funiculosus CBS 272.86

GTGAGTTTA-ACTCA-AAAC-----TA-TCAATTGGCGCAAC-AACACACT-----GACTCG--TCCAGGCAAATCA
TCTCTGCTGAGCACGGTCTCGACGGCTCCGGTGTGTAA-----GTATT--CACGA-TCCG-AAACCAACTACAATCA
GACA--G-TATCTGATAATC-AACAGCTACAATGGCTCCTCCGATCTCCAGTTGGAGCGTATGAACGCTACTTCAAC
GAGGTGCGT-----AA-----AAC----AAAT-TCATCGTACAAACGG--AAATAAA-----TC---TCATAA-CG--
G--TC-CAGGCCTCCGGCAACAAATATGTCCCTCGTGTCTCCTGGTTCGATTTGGAGCCCCGG

>JX091388_Talaromyces_galapagensis CBS 751.74

GTAAGTTTG-ACTGT-CAAC-----CCGAACTTTGCC-TCAGTTGTGCGGAC-AACACACT-----GACT-T-CTCCAGGC
AAATCATCTCTGCTGAGCACGGCCTCGATGGCTCTGGTGTGTAA-----GTATT--GCACGA-TTCG-AATCTAGCTC
CAATCCGACA--A-TATCTGATTGTC-AATAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGCTACT
TTCAACGAGGTGCGT-----TA-----TAAA----ACAC-TCGACTTAT--GCAG--A-ACAA-----AC---ACTCA
T-TG--G--TA-TAGGCCTCCGGCAACAAATACGTCCCCGTGCTGTCTCCTCGTCTGACTTGGAGCCCCGG

>JX494308_Talaromyces_indigoticus CBS 100534

GTGAGTTTG-ACTCC-CGAC-----CCAAACTTTTCA-TCAATTGTGCGGAC-AACACGCT-----GACT-T-TTCCAGGC

AAATCATCTCTGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTATT--ACACGT-TTCG-AATCCACCTA
CCATCCGGCA--G-TGTCTGATTATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTA
CTTCAACGAGGTGCGT-----TA-----GAA-----GACTCTCGACTCAT--GCAG--A-ACAAAC-----AC---TC
AT--TG--G--TA-TAGGCCTCCGGAAACAAATATGTCCCCCGTGTCTCCTCGTCTCGACTTGGAGCCCGG

>JX091387_Talaromyces_intermedius CBS 152.65

GTGAGTTTG-ACTTT-GAAA-----ACAACTCTGGG-TCAATTATCGCGAC-AACACGCT-----GACTCT--TCCAGGCA
AATCATCTCTGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTATT-TACACGA-TTCGAAATCCGATTAC
AATCCGACA--A-TATCTGATAATC-AACAGTTACAATGGTTCTCCGATCTCCAGTTGGAGCGTATGAACGTTTACTT
CAACGAGGTTCGT-----CA-----GAA-----CAAT-CCGCCAAACAAATCAAAC-ACAAG-----AC---TCAT
CACTG--G--TA-TAGGCTTCCGGCAACAAATATGTCCCCCGTGTCTCCTCGTCTCGACTTGGAGCCCGG

>JX091380_Talaromyces_liani CBS 225.66

GTGAGTTGG-ACTCT-CGAC-----CCGAACTTTCTC-TCAATTGTCGCGAC-AACACGCT-----GACT-T-TTCCAGGC
AAATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--GCACGA-TTCG-ACTCCAGCTA
CGATCCGACG--A-TATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTAC
TTCAACGAGGTGCGT-----CA-----AC-----CAAT-CCATCGTATAAACGG--A-ACAAA-----GC---TCATA
C-TG--G--TG-TAGGCCTCCGGCAACAAATACGTTCCCCCGTGTCTCCTCGTCTCGACTTGGAGCCCGG

>JX091382_Talaromyces_macrosporus CBS 317.63

GTGAGTTTG-ACTCT-CGGC-----CCAACCTTTCTA-TCAATGGTCGCGAC-AACACGCT-----GACTTT-TTCCAGGC
AAATCATCTCCGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTATT--CACGA-TTCG-AATCCAGCGA
CAATCCGACA--A-TATCTGATGATC-AACAGCTACAATGGCTCCTCCGACCTCCAATTGGAGCGTATGAACGTCTAC
TTCAACGAGGTGCGT-----CA-----AAC-----CAAT-TCATCGTATAAACGG--A-ATAAA-----AC---TCATA
A-TG--G--AA-TAGGCCTCCGGCAACAAATATGTCCCCCGTGTCTCCTCGTCTCGATTGGAGCCCGG

>JX091389_Talaromyces_marneffeii CBS 388.87

GTGAGTTTG-GCTCT-CAACAAACACATCACAACCTTTTCTCAG-TCACTTGTGCGGAC-AACACGCT-----GACTCTTTTCC
AGGCAAATCATCTCCGCCGAGCACGGCTCGACGGCTCCGGTGTGTAA-----GTATT--ACACGA-TTCA-AATCC
AGCTACAATCCGACA--ATTATCTGATGATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAAC
GTTTACTTCAACGAGGTGCGT-----CA-----GAC-----CCTT-CCACCTAATAAACCGAAG-ACGA-----
ACTCATCATCATCG--A--TA-TAGGCTTCCGGCAACAAATATGTCCCCCGTGTCTCCTCGTCTCGACTTGGAGCCCGG

>KJ865727_Talaromyces_muroii CBS 756.96

GTGAGTTTG-ACTCT-CGAC-----CCGAACCTTTCTA-TCAATTGTCGCGAC-AACACGCT-----GACT-T-TTCTAGGCA
AATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--GCACGA-TTCG-ATTCCAGCTAC
AATCCGACA--A-TATCTGATTATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACT
TCAACGAGGTGCGT-----TA-----GAAA-----ACAC-TCGACTCAT--GCAG--A-ACAA-----AC---ACTCAT
-TT--G--AA-TAGGCCTCCGGCAACAAATACGTTCCCCCGTGTCTCCTCGTCTCGACTTGGAGCCCGG

>KJ775213_Talaromyces_oumae-annae CBS 138208

GTGAGTTTG-G-TCC-CGAC-----CCAACTTTTCTA-TCAATCGTCGCAAC-AACATGCT-----GATT-C-TTTCAGGCAA
ATCATCTCTGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTGTT--ACACGA-TTCG-AATCCAGCTACA
ATCCGACA--A-TATCTGAC-ATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTT
CAACGAGGTGCGT-----CA-----GACCATCTCACC-ACACCAGATAACCCG--A-ACAAA-----AC---TC
ATAATTG--G--TA-TAGGCCTCCGGCAACAAATATGTCCCTCGTGTCTCCTCGTCTCGACTTGGAGCCCGG

>HQ156948_Talaromyces_panamensis CBS 128.89

GTGAGTTTG-ACGTT-AAACACA-----ACGAGCTTTACA-TCAATTGTCGCGAC-AATACGCT-----GACTCT-TTCCAGG
CAAATCATCTCTGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTGTTGGACACGA-TTCGAACTCCG
GCTGCAATCCGACA--A-TTTTTAACGATC-AACAGTTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGT

CTACTTCAACGAGGTGCGT-----TA-----GGAA----CAGT-CGATC---CAAGCGAGAA-ACAA-----AC---
TCATCAATT--G-ATA-TAGGCCCGCAACAAATATGTCCCTCGTGCCGTCCTCGTGGAGCCCGG

>JX091381_Talaromyces_pinophilus CBS 631.66

GTGAGTTGG-GCTCT-CGAC-----CTGGAATTTCTA-TCAATTGTCGTGAC-ACCACGTT-----GACT-T-TTCCAGGCA
AATCATCTCTGCTGAGCATGGCCTCGATGGCTCTGGTGTGTAA-----GTATT--ACACGA-TTCG-AATGCAGCTAC
AATCCGACA--A-GATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACT
TCAACGAGGTGCGT-----CG-----AAC----CAAT-CCATTGTATAAG-GG--A-ACAAA-----GC---TCATA
C-TG--G--TG-TAGGCCTCCGGCAACAAATACGTTCCCGTGCCGTCCTCGTGGAGCCCGG

>JX494305_Talaromyces_primulinus CBS 321.48

GTGAGTCTG-AATCT-CGAC-----TCGAACCTTTGTA-CTAATTGTCGCGAC-AATACGCT-----GACTCT-TTCCAGGCA
AATCATCTCTGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTATT--ACGCGA-TTCG-AACCCAGCTAC
AATTCGACA--A-TATCTGATCTTC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACT
TCAACGAGGTGCGT-----CA-----GA-----CCAC-TTACCAGATAAACCG--A-ACGAAA-----AC---TCATA
T-TT--T-AA-TAGGCCTCCGGCAACAAATATGTCCCGTGCTGTCTCGTGGAGCCCGG

>JX315639_Talaromyces_purpurogenus CBS 286.36

GTGAGGAATGA-----CCACGCTTTCAG-TCAATTGTCGCGAC-GACTCGCT-----GACTAT-TTTCAGGCAAAT
CATCTCTGCTGAGCACGGTCTCGATGGATCCGGCGTGTA-----GTGTT-GATGGGA-TTCGAAATCCATCTACAA
TTCCGACC--G-TATCTGATAATC-AACAGTTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTC
AACGAGGTGCGT-----CG-----AAC----AA---CCAACCAATAGAAACAAAAACAAA-----AC---TCATAT
CCAATGCTAACAGGCTCCGGCAACAAATATGTTCCCTCGTGTCTCGTGGAAACCCGG

>JX315629_Talaromyces_ruber CBS 132704

GTGAGTTTG-A--CT-CGAC-----CCAAGCTTACTA-TCAATTGTCGCGAC-AGCACGCT-----GACT-A-GACCAGGCA
AATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--TCACAA-TTGG-AATACACCTACA
GTTCCGACG--A-TATCTGATCATC-GACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTT
CAACGAGGTGCGT-----TA-----GAAAG----TCTC-TCGACTCCT--ACAG--A-ACAG-----AC---ACTCAT
-TC--A--TC-TAGGCCTCCGGCAACAAATATGTCCCTCGTGCCGTCCTCGTGGAGCCCGG

>JX494309_Talaromyces_rubicundus CBS 342.59

GTGAGTTTGAACCTCC-CGAC-----CCAACCTTTCCA-TCAATTGTCGCGAC-AACACGCT-----GACT-T-TTCCAGGC
AAATCATCTCTGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTATT--AGACCG-TACG-AATCCGACTA
CAATCCGACA--G-TATCTGATTATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTAC
TTCAACGAGGTGCGT-----TA-----GAAA----ACAT-TCGACTCAT--GCAG--A-ACAAA-----AC---ACTC
AT-TG--G--TA-TAGGCCTCCGGAAACAAATATGTCCCGTGCTGTCTCGTGGAGCCCGG

>KJ775206_Talaromyces_sayulitensis CBS 138204

GTGAGTTGG-ACTCT-CGAC-----TCGGACTTTCTA-TCAATTGTCGCGAC-AACACGCT-----GACT-T-TCCCAGGC
AAATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--GCACGATTTCG-AATCCGGCTA
CAATCCGACG--A-TATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTAT
TTCAACGAGGTGTGT-----CG-----AAC----CAAT-CCATCGTAT-AACGG--A-ACAAT-----AC---TTATAT
-TA--G--TA-TAGGCCTCCGGCAACAAATACGTTCCCGTGCTGTCTCGTGGAGCCCGG

>JX091379_Talaromyces_siamensis CBS 475.88

GTGAGTTTG-A--CT-CGAC-----CCAAACTTTCTA-TCAATTGTCGCGAC-AACACGCT-----GACT-T-TTTCAGGCAA
ATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--CACGACCTCG-AATCCAGCTACA
ATCCGACA--A-TATCTGATCGTC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTT
CAACGAGGTGCGT-----CG-----TAC----CAAT-CCACCATAT-GACGA--A-ACAA-----AC---TTACAA-T
G--G--TATTAGGCCTCCGGCAACAAATACGTTCCCGTGCTGTCTCGTGGAGCCCGG

>JX315633_Talaromyces_stollii CBS 408.93

GTGAGTTTG-A--CT-CGAC-----CCAAACTTTCTA-TCAATTGTCGCGC-GGCACGCT-----GACT-T-GTCCAGGCA
AATTATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--TCACAA-TTCG-AATACACCCACA
GTCCGAGG--T-TATCTGATCATC-GACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTT
CAACGAGGTGCGT-----TT-----GAAAG---TTTC-TCGACTCCT--GCAG--A-ACAA-----AC---ACTAAT-
TC--A--GC-TAGGCCTCCGGCAACAAATACGTCCCCCGTGTCTCGTCTCGACTTGGAGCCCGG

>JX494294_Talaromyces_thailandensis CBS 133147

GTGAGTGTGACTCT-CGAC-----CCAAACTTTCGG-TCAATTCTCGCGAC-AACACGCT-----GACTCT-TTCCAGG
CAAATCATCTCCGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTGTT-GATACGA-ATCGAAATTC---C
ACAATTCGACA--A-TATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTA
CTTCAACGAGGTGAGT-----TA-----GACA----ACAC-TCGACTCG--AACAGAAC-ACAG-----AC---TC
ATCAATT--G--CA-TAGGCTTCCGGCAACAAGTATGTCCCTCGTGTCTCGTCTCGACTTGGAGCCCGG

>KF741928_Talaromyces_verruculosus CBS 388.48

GTGAGTTTG-ACTCT-GGAA-----CCCAACTTTTGA-TCAATTGTTGCGAC-AGCACACT-----GACT-C-TTTCAGGCA
AATCATCTCTGCTGAGCACGGTCTCGACGGCTCCGGTGTGTAA-----GTATA--ACACGA-TTCG-AATCCAGCTGC
AGTCCGACG--A-TATCTGATGATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTAC
TTCAACGAGGTGCGT-----CA-----GAC----CAAT-CCACTAGATAAATCG--A-ACAAA-----AC---TCAT
CCCTC--G--A--TAGGCTTCCGGCAACAAATATGTCCCCCGTGTCTCGTCTCGACTTGGAGCCCGG

>JX494310_Talaromyces_viridis CBS 114.72

GTGAGTTTG-ACTCTGAGAC-----CGAAACTCTCAGTCAAATTGTT-----T-----GACTCT-TTCCAGGCAAATCA
TCTCTGCTGAGCACGGCTCGATGGCTCCGGTGTGTAA-----GTATTTGACTTGG-TTCG-AATCCAGCTACAATC
CGACA--A-TCTCTGATCATC-AACAGTTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAA
CGAGGTGCGT-----TA-----GAAAACAAGACAT-TCGACTCA--ACCGG---ACAAA-----AC---TCATCA
GTT--G--GTTTAGGCTTCCGGCAACAAATATGTTCTCGTGTCTCTCGTCTCGACTTGGAGCCCGG

>JX091385_Talaromyces_viridulus CBS 252.87

GTGAGTTTG-G-TCT-CGAC-----CCAAACTTTCTA-TCAATTGTCGCAAC-AACACGCT-----GACT-C-TTTCAGGCA
AATCATCTCTGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTATC--GCACGA-TTCG-AATCCAGCTAC
AACCCGACA--A-TATCTGACAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACT
TCAACGAG---GT-----CA-----GAC----CACT-CCACCAGATAAATCG--A-ACAAA-----AC---TCATAAT
TG--G--TA-TAGGCCTCCGGCAACAAATATGTCCCTCGTGTCTCTCGTCTCGACTTGGAGCCCGG

>KP765380_Talaromyces_qii_AS3.15414

GTGAGTGTGACTCT-CGAC-----CCAAACTTTCAG-TCAATTCTCGCGAC-AACACGCT-----GACTCT-TTCCAGG
CAAATCATCTCCGCTGAGCACGGTCTCGACGGCTCTGGTGTGTAA-----GTGTT-GATACGA-ATCGAAATCC---TA
CAATTCGACA--C-TATCTGATAATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTAC
TTCAACGAGGTGCGT-----TA-----GA-A-----TCAC-TCGACTCA--AACGAAAC-ACAG-----AC---TCAT
CAATT--G--CA-TAGGCTTCCGGCAACAAGTATGTCCCTCGTGTCTCTCGTCTCGATTGGAGCCCGG

>KP765381_Talaromyces_fusisporus_AS3.15415

GTGAGTTGG-A--CA-CGAC-----CCAAACTTTCTA-TCAATTGTCGCGAC-AGCACGCT-----GACT-T-GTC-AGGCAA
ATCATCTCTGCTGAGCACGGTCTCGATGGCTCTGGTGTGTAA-----GTATT--ATACGA-TTCG-AATCCAGCTACAA
TCCGACA--G-TATCTGATCATC-AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTC
AACGAGGTGCGT-----TA-----GGAT----TTCC-TCGGCTCAT--GCAG--A-ACAA-----AC---ACTCAT-AT
--G--AA-TAGGCCTCCGGCAACAAATACGTCCCCCGTGTCTCGTCTCGACTTGGAGCCCGG

>KJ865725_Talaromyces_helicus_CBS_335.48

GTCCATCAT-ATTCT-TGTT-----CCCTCTG-CTAATCGTCATAAC-----CAGGCAAATCATCTCTGC

TGAGCACGGCCTCGATGGCTCTGGTGTGTAAGTTGACCGTGTATT-CTGTCGACGTCGAAATCTATCATCGATCGC
TCA--G-ATTCTGACCAACCACCAGCTACAATGGCTCCTCCGACCTTCAATTGGAGCGCATGAACGTCTACTTCAAC
GAGGTACGC-----CAATCCATCTAAGGCCTACACGCATTCAAT-CCAATAACGCGAGAAAAAAAA-----
-----A--TCTTAGGCCAACGGCAACAAATATGTTCCCTCGTGTCTCCTCGTCGATCTCGAGCCCGG

Data S2. The sequence alignment of *BenA*.

Supplementary dataset 3

>KF741995_Talaromyces_acleatus_CBS 289.48 its

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG--
CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-GTATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGA
AAGGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTTTGTCACTCG-CTCGGGAAGGACCTGCGG
GGGTTGGTCA

>JX315660_Talaromyces_amestolkiae CBS 132696

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACA--
TCTGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGAAA
GGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTTTGTCACTCG-CTCGGGAAGGACTGGCGGGG
GTTGGTCA

>KF183638_Talaromyces_angelicus KACC 46611

CCTCCCACCCTTGTCTCT-CTAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG-
-CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CGATG
-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGAA
AGGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTTGTCACTCG-CTCGGGAAGGACCTGCGGG
GGTGGTCA

>JN899375_Talaromyces_apiculatus CBS 312.59

CCTCCCACCCTTGTCTCT-CT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG--
CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-TTATG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGAAA
GGCAGCGGC-GACGTCCGTCT--GGTCCTCGAGCGTATGGGGCTTGTCACTCG-CTCGGGAAGGACCTGCGGGG
TTGGTCA

>JN899380_Talaromyces_aurantiacus CBS 314.59

CCTCCCACCCGTGTC----CTCTCACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG--
TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-C-GAATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCCCGGCTTGTGTGTTGGGCGTGGTCCCCC-GGGGACCTGTCCGAA
AGGCAGCGGC-GACGTCCGTCT--GGTCCTCGAGCGTATGGGGCTT-GTCACTCG-CTCGGACGGATCGGCGGAG
GTTGGTCA

>JN899319_Talaromyces_calidicanus CBS 112002

CCTCCCACCCTTGTCTCT-CTAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG-

-TTCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CGATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCCGAA
AGGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTTGTCACTCG-CTCGGGAAGGACCTGCGGG
GGTTGGTCA

>KF183639_Talaromyces_cnidii KACC 46617

CCTCCCACCCTTGTCTCT-ATAC-ACCCGTTGCTTTGGCGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG-
-TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGCGCGGTCCCCC-GGGGACCTGCCCGAA
AAGGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTTGTCACTCG-CTCGGGAAGGACCTGCGG
GGTTGGTCA

>JN899327_Talaromyces_derxii CBS 412.89

CCTCCCACCCTTGTCTCT-CT-CTAC-ACCTGTTGCTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG--
-TCGTCCCCGGGCCCGCGCCCGCCGAGG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-TCATG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCCGAAA
GGCAGCGGC-GACGTCCGTCC-GGTCCTCGAGCGTATGGGGCTTGTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JN899342_Talaromyces_duclauxii CBS 322.48

CCTCCCACCCGTGTCTCT-CT-CTAC-ACCTGTTGCTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG-
--TTGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-TGATG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC--GGGGACCTGCCCGAAA
GGCAGCGGC-GACGTCCGTCC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>AB176617_Talaromyces_euchlorocarpus PF 1203

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG-
-TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCATGGCATTCCGGGGGGCATGC
CTGTCCCAGCGTCATTTCTGCCCTCAAGCGCGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGAA
AAGGCAGCGGC-GACGTCCGTCC-GGTCCTCGAGCGCATGGGGCTTGTCACTCGACTCGGGAAGGACCTGCG
GGGTTGGTCA

>JN899392_Talaromyces_flavovirens CBS 102801

CCTCCCACCCTTGTCTCT-CT-CTAC-ACCTGTTGCTTTGGCGGGCCACC-GGGGCGACCTGGTCGCCGGGGGACG--
AACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CGATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCCGAA

AGGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTT-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JN899360_Talaromyces_flavus CBS 310.38

CCTCCCACCCTTGTC-CT-ATAC-ACCTGTTGCTTTGGCGGGCCCACC-GGGGCCACCTGGTCGCCGGGGGACG---
-CGTCTCCGGGCCCCGCGCCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CTATG-AA
AATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATG
TGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCT
GTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCAAAA
GGCAGCGGC-GACGCCCCTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JN899377_Talaromyces_funiculosus CBS 272.86

CCTCCCACCCTTGTC-CT-CTAC-ACCTGTTGCTTTGGCGGGCCCACC--GGGGCC-CCTGGTCGCCGGGGGACG---
CCGTCCCCGGGCCCCGCGCCCCGCCGAAG-CGCTTCGTGAACCCTGATGAAGAAGG-GCTGTCTGAG-A-CTATG-A
AAATGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC--GGGGACCTGCCGAAA
GGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JN899358_Talaromyces_galapagensis CBS 751.74

CCTCCCACCCTTGTC-CT-ATAC-ACCTGTTGCTTTGGCGGGCCCACC-GGGGCCACCTGGTCGCCGGGGGATA--
CACGTCCCCGGGCCCCGCGCCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CTGTG-
AAAATGGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAA
AGGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGACGGACCTGCGGG
GGTTGGTCA

>JN899331_Talaromyces_indigoticus CBS 100534

CCTCCCACCCTTGTC-CT-ATATAACCTGTTGCTTTGGCGGGCCCACC--CTGTGGCCAGGTCGCCGGGGGACG---
TCGTCCCCGGGCCCCGCGCCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG--CTGTCTGAGTC-GTATG-AG
AATCGT-AAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGT
GAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTG
TCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAG
GCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTT-GTCACTCG-CTCGGGAAGGACCTGCGGGGT
TGGTCA

>JN899332_Talaromyces_intermedius CBS 152.65

CCTCCCACCCTTGTC-CT-ATAC-ACCTGTTGCTTTGGCGGGCCCACC-GGGGCCACCTGGTCGCCGGGGGACG---
-CGTCCCCGGGCCCCGCGCCCCGCCGAAG-CGCCCTGTGAACCCTGATGAATATGG-GCTGTCTGAG-A-CTATG-AAA
ATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGT
GAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTG
TCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAG
GCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTT-GTCACTCG-CTCGGGAAGGACCTGCGGGGT
TGGTCA

>JN899395_Talaromyces_liani CBS 225.66

CCTCCCACCCTTGTCCTCTATAC-ACCTGTTGCTTTGGCGGGCCCACC-GGGGCCACCTGGTCGCCGGGGGACG-

-CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCGCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CTATG-
AAAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAA
AGGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGG
GGTTGGTCA

>JN899333_Talaromyces_macrosporus CBS 317.63

CCTCCCACCCTTGTC-CT-ATAC-ACCTGTTGCTTTGGCGGGCCCACTGGGGGCCCTTGGTCGCCGGGGGACA--
TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-TTATG-A
AAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAA
GGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JN899344_Talaromyces_marneffeii CBS 388.87

CCTCCCACCCTTGTC-CT-ATAC-ACCTGTTGCTTTGGCGGGCCCACTGGGGGCCCTTGGTCGCCGGGGGACG--
-TTGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-ACTGTCTGAG-A-CCATG-A
AAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCTCC-GGGGACCTGCCGAAA
GGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JN899351_Talaromyces_muroii CBS 756.96

CCTCCCACCCTTGTCGTTTATA--ACCTGTTGCTTTGGCGGGCCCACTGGGGGCCCTTGGTCGCCGGGGGACA--
--CGTCCCCGGGCCCGTGCCTCCGAAG-CGCCCTAGAACTCTGGTGAAGCTAG-GCTGTCTGAGC--TTATG-AA
AATAGT-AAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGT
GAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTG
TCCGAGCGTCATTTCTGCCCTCAAGCGCGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAAG
GCAGCGGC-GACGTCCGTCG-GGTCCTCGAGCGCATGGGGCTT-GTCACTCG-CTCGGGAGGGACCCGCGGGG
GTTGGTCA

>KJ775720_Talaromyces_oumae-annae CBS 138208

CCTCCCACCCTTGTCCT-ACAC-ACCTGTTGCTTTGGCGGGCCCACTGGGGGCCCTTGGTCGCCGGGGGACG
GTTTCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTAT
G-AAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGT
AATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCAT
GCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCC
GAAAGGCAGCGGC-GACGTCCGTCG-GGTCCTCGAGCGTATGGGGCTTGTCACTCG-CTCGGGAGGGACCCGCGGGG
GGGGTTGGTCA

>JN899362_Talaromyces_panamensis CBS 128.89

CCTCCCACCCTTGTC-CT-ACAC-ACCTGTTGCTTTGGCGGGCCCACTGGGGGCCCTTGGTCGCCGGGGGACG-
---CGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CGATG-A
AAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCGAAA

GGCAGCGGC-GACGCCCGTC--GGTCCTCGAGCGCATGGGGCTT-GTCACTCG-CTCGGGATGGACCTGCGGGG
GTTGGTCA

>AB176603_Talaromyces_paucisporus PF 1150

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGTCACCTGGTCGCCGGGGGACG--
CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CGATG-
AAAATCGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCANAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCCGAA
AGGCAGCGGCGGACGTCCGTCT-GGTCCTCGAGCGCATGGGGCTCTGTCACTCG-CTCGGGAAGGACCTGCGG
GGGTTGGTCA

>JN899382_Talaromyces_pinophilus CBS 631.66

CCTCCCACCCTTGTCTCT-CT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG--
CACGTCTCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CTGTG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCCGAA
AGGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGG
GTTGGTCA

>JN899317_Talaromyces_primulinus CBS 321.48

CCTCCCACCCTTGTCTCT-CTAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG-
-CTCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-TTATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGA
AAGGCAGCGGC-GACGTCCGTCC-GGTCCTCGAGCGTATGGGGCTTTGTCACTCG-CTCGGGAAGGACCTGCGG
GGGTTGGTCA

>JN899372_Talaromyces_purpurogenus CBS 286.36

CCTCCCACCCTTGTCCCA---AC-ACCTGTTGCTTCGGCGGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACA--
-TCCGTCCCCGGGCCCGCGCCCGCCGAGG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-G-ATATG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGT-CCCCC-GGGGACCTGCCCGAAA
GGCAGCGGC-GACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JX315662_Talaromyces_ruber CBS 132704

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGTCACCTGGTCGCCGGGGGACAA
-TCTGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGAA
AAGGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTTTGTCACTCG-CTCGGGAAGGGCTGGCGG
GGGTTGGTCA

>JN899384_Talaromyces_rubicundus CBS 342.59

CCTCCCACCCTTGTCTCT-CT-ATA--ACCTGTTGCTTTGGCGGGGCCACC-GTGA-----GGTCGCCGGGGGACG--AACG

TCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG---GTACG-AAAAT
CGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGA
ATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGGCATGCCTGTC
CGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCCC-GGGGACCTGCCGAAAGGC
AGCGGC-GACGTCCGTC--GGTCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGGGTTG
GTCA

>KJ775713_Talaromyces_sayulitensis CBS 138204

CCTCCCACCCTTGTCTCTAATAC-ACCTGTTGCTTTGGCGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG-
-CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTGTG
AAAAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTA
ATGTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGGCATG
CCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCCC-GGGGACCTGCCGAA
AAGGCAGCGGC-GACGTCCGTC--GGTCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGG
GGTTGGTCA

>JN899385_Talaromyces_siamensis CBS 475.88

CCTCCCACCCTTGTCT-CT-ATAC-ACCCGTTGCTTTGGCGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG--
TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CTATG-A
AAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCCC-GGGGACCTGCCGAAA
GGCAGCGGC-GACGTCCGTC--GGTCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGG
GTTGGTCA

>JN899348_Talaromyces_stipitatus CBS 375.48

CCTCCCACCCTTGTCC---ATA--ACCTGTTGCTTTGGCGGGCCACC-GGGA--ACCTGGTCGCCGGGGGACG---TC
GTCCCCGGGCCCGCGCCCGCCGAGG-CGCCCTTTGAACCCTGATGAAGATGG-GCTGTCTGAG-G-ATATG-AAAA
TTGTCAAAACTTTCAACAACGAATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTG
AATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGGCATGCCTGT
CCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCCC-GGGGACCTGCCGAAAGG
CAGCGGC-GACGTCCGTC--GGTCTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGGGTT
GGTCA

>JX315674_Talaromyces_stollii CBS 408.93

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG--
TTGTCGCCCGGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-A
AAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCCC-GGGGGCCTGCCGAA
AGGCAGCGGC-GACGTCCGTC--GGTCTCGAGCGTATGGGGCTTGTCACTCG-CTCGGGAAGGACTGCGGGG
GGTTGGTCA

>JX898041_Talaromyces_thailandensis CBS 133147

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG-
-CTCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTAAGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-
AAAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCCC-GGGGACCTGCCGAA

AGGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTTTGTCACTCG-CTCGGGAAGGACCTGCGGG
GTTGGTCA

>KF741994_Talaromyces_verruculosus CBS 388.48

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG--
-TCGTCTCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCCC-GGGGACCTGCCCGAAA
GGCAGCGGC-GACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTCTGTCACTCG-CTCGGGACGGACCTGCGGGG
GTTGGTCA

>AF285782_Talaromyces_viridis CBS 114.72

TCTCCCACCCTTGTCTCT-CTAT-ACCTGTTGCTTCGGCGGGGCCACC-GGGACA--CTGGTCGCCGGGGGACG--T
CCGTCCCCGGGGCCCGCGCCCGCCGAAGCCCCCTGTGAACCCTGATGAATATGGAGCTGTCTGAGTATCAATG-
AAAATCGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTTGTGTGTTGGGTGCGGTCCCCCC-GGGGACCCGCCCGA
AAGGCAGCGGC-GACGCCCGTCC-GGTCCTCGAGCGCATGGGGCTCTGTACCCG-CTCGGGAAGGACCCGCG
GGGGTTGGTCA

>JN899314_Talaromyces_viridulus CBS 252.87

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCTGGTCGCCGGGGGACG--
TTCGTCCCCGGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CGATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCCCC-GGGGACCTGCCCGAA
AGGCAGCGGC-GACGTCCGTCTG-GGTCCTCGAGCGCATGGGGCTTTGTCACTCG-CTCGGGAAGGACCTGCGG
GGGGTTGGTCA

>KP765384_Talaromyces_qii_AS3.15414

CCTCCCACCCTTGTCTCT-ATAT-ACCTGTTGCTTTGGCGGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACG--
CTCGTCCCCGGGGCCCGCGCCCGCCGAAG-CGCTCTAAGAACCCTGATGAAGATGG-GCTGTCTGAGTA-ATTTG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGCGGTCCCTCC-GGGGACCTGCCCGAAA
GGCAGCGGC-GACGTCCGTCTG-GGTCCTCGAGCGCATGGGGCTTTGTCACTCG-CTCGGGAAGGACCTGCGGG
GTTGGTCA

>KP765385_Talaromyces_fusisporus_AS3.15415

CCTCCCACCCTTGTCTCT-ATAC-ACCTGTTGCTTTGGCGGGGCCACCAGGGGCTCACCTGGTCGCCGGGGGACG-
-TCTGTCCCCGGGGCCCGCGCCCGCCGAAG-CGCTCTGAGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-
AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAA
TGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGC
CTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTTGTGTGTTGGGTGCGGTCCCCCC-GGGGACCTGCCCGA
AAGGCAGCGGC-GACGTCCGTTTGGGTCTCGAGCGTATGGGGCTTTGTCACTCG-CTCGGGACGGACCCGCG
GGGGTTGGTCA

>JN8993591_Talaromyces_helicus_CBS 335.48I

CCTCCCACCCGTGCCGTT-ATAATACCTGTTGCTTTGGCGGGGCCACC--GGGG-CACCTGGTCGCTGGGGGACG---

CCGTCCCCGGGCCCCGCGCCCGCCGAAG-CACCCCCTGAACTCTGAAGAAGATAGGGCTGTCTGAG-A-CCTAG-A
AAATTGTCAAACTTTCAACAATGGATCTCTTGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAAT
GTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCC
TGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCCGGGGGACCTGCCCCAA
AGGCAGCGGC-GACGCCCCGTCG-GGCCTCGAGCGCATGGGGCTT-GTCACTTG-CTCGGGAGGGACCTGCGGG
GGTTGGTCA

Data S3. The sequence alignment of *ITS1-5.8S-ITS2*.

Supplementary dataset 4

>Talaromyces_aculeatus_CBS_289.48CaMBenAITS

TG-GATATCTAT-TTGTG-----GCA----ATGTTG---TGGT-GGGTGGTT-AGCTGACTA---CG---GTT-----TGATG-AG
TAGGACAAGGATGGAGATGGTGAGT-----CCGC-----CACGAA--CAATAACC-AAAAGACCTTGA-CCGA
AGG-----TGATC-GCA-----ACGGACA-AATATTGA-----TAAAATT-GAATAGGCCAAATCACAAACCAAGGAAGTGG
GCACCGTCATGCGCTCTCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCT
GACAACAACGGCACAATCGATTTCCTGGTATGCTATA-----AATCCTTACGGGT-TATTA-----CGA-----TGG
CGG---T-ACTAACTGC--T-G---CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGA
GATCCGCGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTG-ACTCTCG-AC--CCA-----AGCTTTC
-TATCAATTGTCGCGAC-AACACGCTGACT-----CT-TTCCAGGCAAATCATCTCTGCTGAGCATGGTCTCGATGGCT
CTGGTGTGTAA-----GTA-TC---CATGA-ATGG-AATCCAGCTACAATCCGACA--A-TATCTGA-TAATCAACAGCTAC
AATGGCTCCTCTGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTCG-----AAC-----CAA
T-CCACCAAAT--AACGA-A--ACAAA-----CTCAC-A--ATGG-----TATAGGCCTCCGGCAACAAATACGTCCCC
GTGCTGTCTCGTTCGACTTGGAGCCCGGNCCTCCCACCTTGTCT-CTATAC-ACCTGTTGCTTTGGCGGGCCCA
CC-GGGGCCACCTGGTCGCGGGGGAC-G-CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCC
TGATGAAGATGG-GCTGTCTGAGTA-GTATG-AAAATTGTCAAACCTTTCAACAATGGATCTCTTGGTTCCGGCATCG
ATGAAGAACGCAGCGAAATGCGATAAGTAATGTAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACAT
TGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTG
GGTGCGGTCCCCC-GGGGACCTGCCCGAAAGGCAGCGGCGACGTCCGTCT-GGTCCTCGAGCGTATGGGGCT
TTGTCACTCG-CTCGGGAAGGACTGCGGGGGTTGGTCA

>Talaromyces_amestolkiae_CBS_132696

TG-GAAACTTGGTTTGTG-----ACA----ATGTTG---GC-----GTGGTT-AGCTGACCAG-CCG---TTT-----TGATG-AA
TAGGACAAGGATGGAGATGGTGAGT-----CGC-----CGCGAA--CAATAA-----AACACCTTGA-ACGAAC
G-----TTACC-GCA-----GCCAACA-GACATTGA-----CCCTATC-GGACAGGACAAATCACAAACCAAGGAAGTGG
GCACAGTCATGCGTTCTCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCT
GACAACAACGGCACAATGATTTCCTGGTATGACTGA-----CCACCAAC-TCGCAATATTGA-----TG
GCAG---T-ACTGACTGC--C-G---CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAA
GAGATCCGTGAGGCTTTCAAGGTGTTTGATCGTGACAACAATGNGTGAGTTTG-A--CTCG-TC--CCA-----AGC-TA
C-TATCAATTGTCGCGAC-AGCACGCTGACT-----T-ATCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGATGGC
TCTGGTGTGTAA-----GTA-TT--TCACAG-TTCG-AATACACCTACAGTCCGACA--A-CATCTGA-TCATCGACAGCTA
CAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTA-----GAAA----GT
CTC-TCGACTCCT---ATAG-A---ACAGA-----CACTC-A--TTCA-----TC-TAGGCCTCCGGCAACAAATACGTCCCC
CGTGCCGTCTCGTATTTGGAGCCCGGNCCTCCCACCTTGTCT-CTATAC-ACCTGTTGCTTTGGCGGGCCC
ACC-GGGGCCACCTGGTCGCGGGGGAC-A-TCTGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCC
TGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAACCTTTCAACAATGGATCTCTTGGTTCCGGCATCG
ATGAAGAACGCAGCGAAATGCGATAAGTAATGTAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACAT
TGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTG
GGTGCGGTCCCCC-GGGGACCTGCCCGAAAGGCAGCGGCGACGTCCGTCT-GGTCCTCGAGCGTATGGGGCT
TTGTCACTCG-CTCGGGAAGGACTGCGGGGGTTGGTCA

>Talaromyces_angelicus_KACC_46611

TG-GATTTCCAC-TTGTG-----GTA----ATGGTG-----GGTGGTT-AGCTGACTAG--CG---TTT-----TGATG-AGTA
GGACAAGGATGGAGATGGTGAGT-----CCGC-----CACGAA--CGATAACC-AAAAGACCTTGA-ACAAAG
G-----TTATC-GCT-----ACGAACA-GATATTGA-----CTATATC-GAATAGGCCAAATCACGACCAAGGAAGTGGGC

ACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTGA
CAACAACGGCACAATCGATTTTCTGGTATGATATA-----ATTGCTTACGGTT-TACTA----CGA-----TGGCA
G----T-ACTAACTGC--C-G---CAGAATTCTTGACAATGATGGCCCCGAAAATGAAGGATACCGACTCCGAGGAAGAGA
TCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTTTT-A--CTCG-AC--CCG-----AACTTTC-TAT
CAATTGTGCGGAC-AACACGCTGACT-----T-TTCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGATGGCTCTG
GTGTGTAA-----GTA-TT--ACATGA-TTCG-ATTCCAGCTACAATCCAACA--A-TATCTGA-TCATCAACAGCTACAAT
GGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTCA-----GAC----GATT-C
CACCATAT--AAACAA-A--ACAAA-----ACTCAT----CGG-----GTATAGCCTCCGGCAACAAATACGTTCCCGTG
CTGTCTCGTGCAGTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTCTAC-ACCTGTTGCTTTGGCGGGCCACC-
GGGGCCACCTGGTCGCCGGGGGAC-G-CACGTCCCCGGGCCGCGCCCGCCGAAG-CGCTCTGTGAACCCTGA
TGAAGATGG-GCTGTCTGAGTA-CGATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGAT
GAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTG
CGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGG
TGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTCT-GGTCCTCGAGCGTATGGGGCTCT
GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_apiculatus_CBS_312.59

TG-GATATCTAT-TTGTG-----GCA----ATGTTG---CCGT-GGGTGGTT-AGCTGACTAG--CG---GCT-----TGATG-A
GTAGGACAAGGATGGAGATGGTGAAGT-----CCGC----CATGAA--CAATAACC-AAGAGACCTTGA-ACA
TAGG-----TGATC-GCA-----ACGAACA-AGTATTGA-----TAAATC-GAATAGGCCAAATCACAACCAAGGAACTG
GGCACCCTCATGCGTTCTCTCGGCCAGAACCCCTCCGAATCCGAATTACAGGACATGATCAATGAGGTCGACGC
TGACAACAACGGCACAATCGATTTCCCTGGTATGATATA-----ATTGCTTACGGGT-TATTA----CGA-----CG
GCAG----T-GCTAACTGC--C-G---CAGAATTCTTGACAATGATGGCCCCGAAAATGAAGGATACCGACTCCGAGGAA
GAGATCCGCGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTG-ACACTCG-ACA-CCA-----AGCT
TTC-TATCAGTTGTGCGGTC-AACACGCTGACTC-----TG-TCCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGAT
GGCTCCGGTGTGTAA-----GTA-TC---CACGG-TTCG-AATCCAGGTACAATTCGACA--A-TATCTAA-TAATCAACAG
CTACAATGGCTCCTCTGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAAGTGCCTCG-----AAAC--
---CAAT-CCACCATAT---AACGA-A--ACAAA-----CTCAC-A--GTGG-----TATAGCCTCCGGCAACAAATACGTC
CCCCGTGCTGTCTGGTGCAGTTGGAGCCCGGNCCTCCCACCCTTGTG--CTATAC-ACCTGTTGCTTTGGCGGG
CCCACC-GGGGCCACCTGGTCGCCGGGGGAC-G-CACGTCCCCGGGCCGCGCCCGCCGAAG-CGCTCTGTGA
ACCCTGATGAAGATGG-GCTGTCTGAG-A-TTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGC
ATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGC
ACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTG
TTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTG--GGTCCTCGAGCGTATGGG
GCTT-GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_aurantiacus_CBS_314.59

TGAAATATCTTC-CTGTC-----GCATAGTATTTTC---TCGT-----TGCTTACAGA-ATG---TTT-----TAATGAAATA
GGACAAGGATGGAGATGGTGAAGT-----GACGAC-----TGCGACA-CACCAACG-ATGTGCTATCGA-AAGC
AGATTCAT--CTACGATCT-----ACGAATA-AATATTGA-----TAGAGTC-GGACAGGTCAAATCACAACCAAGGAAC
TGGGCACCCTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAAGACATGATCAACGAAGTTGAC
GCTGACAACAACGGCACAATTGATTTCCCTGGTACGATC-----ATCACGCCGCAAC----CTGCTTTCAA-----
--TGAAA---A-ACTGACCGC--C-G---CAGAATTCTTGACCATGATGGCCCCGAAAATGAAGGATACCGACTCCGAG
GAAGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAACGNGTGTAATA-----AAA-----GACTT---
GGTCAATTGTGCCACAAAAAAGCTGAAT-----T-TTCTAGGCAAATCATCTCTGCTGAGCACGGTCTCGATGGCTC
CGGTGTGTAA-----GTG-TTACAAACCA-TTCG-AATGCAGTTATAATCCGACA--C-CATCTGA-TCATCAATAGCTAC

AATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTGG-----AAC-----AA
CCATCAGAAAAT--CAATCGAATGCTTGG-----ACTCATCT--CTCGA----ATATAGGCCTCCGGCAATAAGTACGT
TCCCCGTGCCGTCTTGTGCGACTTGGAGCCCGGNCCTCCCACCCGTGTCCTCTC---ACCTGTTGCTTTGGCGG
GCCACC--GGGGCCACCCGGTCGCCGGGGGAC-G-TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTG
AACCCTGATGAAGATGG-GCTGTCTGAGCG--AATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGG
CATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCCGTGAATCATCGAATCTTTGAACG
CACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCCCGCTTGTGT
GTTGGCGTGGTCCCCC--GGGACCTGTCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGG
GGCTT-GTCACTCG-CTCGGGACGGATCGGCGGAGGTTGGTCA

>Talaromyces_cnidii_KACC_46617

TG-ACTTTCTAC-TTATC-----GCA---ATGTTG---TGGT--GGTGGTT-AGCTGACTAG-CCG---GTT-----TGATG-AA
TAGGACAAGGATGGAGATGGTGAGT-----CGCCACGAACACAAA--CAACAACC-AAACGACTTTGA-A
CAAAGG-----CTATC---A-----ACGGACA-GTTATTGA-----CTCTATC-GAATAGGTCAAATCACAACCAAGGA
GGGACCCGTATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTGCGACG
CTGACAACAACGGCACAATCGATTTCCCTGGTATGACAAA-----GCGCACTACCAC-TCGCAATATCACA-----
---TGGCAG---T-ACTAACTGC--C-G---CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGA
GGAAGAGATCCGCGAGGCCTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTG-A--CTCG-AC--CCA-----A
ACTTTC-TATCAATTGTCGCGAC-AACACGCTGACT-----T-TTTCAGGCAAATCATCTCTGCTGAGCACGGTCTTGA
TGGCTCTGGTGTGTAA-----GTA-TT--CACGAATTCG-AATCCAGCTACAATCCGACA--A-TATCTGA-TCGTCAAC
AGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTGC-----AA
C-----CAAT-CCACCATAT--AACGA-A---ACAAA-----CTCAC-A--ATGG-----TATTAGGCCTCCGGCAACAAATACG
TCCCCGTGCTGTCTCGTGCAGTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTATAC-ACCCGTTGCTTTGGCG
GGCCACC--GGGGCCACCTGGTCGCCGGGGGAC-G-TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGT
GAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCG
GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCCGTGAATCATCGAATCTTTGAAC
GCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGT
GTGTTGGGCGCGGTCCCCC--GGGACCTGCCGAAAGGCAGCGGCGACGTCCGTCT--GGTCCTCGAGCGTAT
GGGGCTCTGTCACTCG-CTCGGAAGGACCTGCGGGGTTGGTCA

>Talaromyces_derxii_CBS_412.89

TG-----CAGG-CTGTC-----GCA---TTTTTT-----TGTGGTTGAGGTCACTAA-CCGGTCTTT-----TAATG-AACA
GGACAAGGATGGAGATGGTGAGT-----GACCGA----TACGGCA-TGCCGACGAATATTGTCTCGA-ATAA
AAG-----CTTGAATGT-----ACGGGCA-GATACTGA-----TAGACTC-GAACAGGTCAGATCACTACCAAGGA
GGGACCCGTATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAGTTGCAGGACATGATCAACGAAGTCGAC
GCTGACAACAACGGCACAATTGATTTCCCTGGTACGATTCA-----TCACTCTAGATGGTGACA---TCGA-----
---CGATAA----AAACTGACAGC--C-A---CAGAATTCCTGACCATGATGGCCCGCAAATGAAGGATACCGACTCCGAG
GAAGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAACGNGTGAGTTCTGA--CTCG-ACTGTAA-----A
AGTCTC-AGTCAATTGTCGCGACAAACATGCTGACT-----T-TACCAGGCAAATCATCTCTGCCGAGCACGGTCTCG
ACGGCTCTGGTGTGTAA-----GTG-TTGCAAACGA-CTCG-GATCCAAATACAAGCCGATAGTA-TATCTGA-TTATC
AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAATGAGGTGCGTGA-----
-AAT----TAACCACCGAAAAAACCCATCGAATGCTTGA-----CTGATGT--TTCGA----ATATAGGCCTCCGGCAA
CAAATACGTGCCCGTGTCTGCTCGACTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTCTAC-ACCTGTTGC
TTTGGCGGGCCACC--GGGGCCACCCGGTCGCCGGGGGAC-G--TCGTCCCCGGGCCCGCGCCCGCCGAGG-C
GCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-TCATG-AAAATTGTCAAACTTTCAACAATGGATCTCTT
GGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCCGTGAATCATCGAATC

TTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACG
GCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCCCGAAAGGCAGCGGGCGACGTCCGTCC-GGTCCTCGA
GCGTATGGGGCTT-GTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_duclauxii_CBS_322.48

TG-GATTCCGGG-TTGTG-----GCA----ATGTTG---TGGT-GGGTGGTT-AGCTGACTAG-CCG---TTT-----TGATG-
AATAGGACAAAGACGGAGATGGTGAGT-----GACGC----CACGAA--CACCAACG-ATATACTCTTGAA
CAAAGG-----CTATT-GCT-----GCGAACA-AATATTGA-----TTATGCC--AACAGGTCAAATCACAACCAAGGA
GGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTCGATG
CTGACAACAACGGCACAATCGATTTCCCTGGTATGATACA-----GCTTCTACTTACCGCAACTGTTTCCGATCGAA-
-----GCGCAG---ATACTGACCGT--C-G---TAGAATTCTTGACAATGATGGCTCGAAAATGAAGGATACCGACTC
TGAGGAAGAGATCCGCGAGGCTTTCAAGGTGTTGACCGCGACAACAATGNGTGAGTTG-ACCTTCA-CT--CCG-
----AATTTTCAAGTCAATTGTCGCGAT-AACACGCTGACTCTGACTCT-TTCCAGGCAAATTATCTCTGCTGAGCACG
GTCTCGACGGCTCCGGTGTGTAA-----GTA-TT--ACTCAA-TTCA-AATCCAGCTACAATCCGACA--AGTATCTGA-T
AATCAACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTTTCGTCA-----
-----GAC-----CCAT-CCACACCAT--AAACCGCA--AACAG-----CTCAT-G--ATCG-----ATACAGGCTTCCGGCA
ACAAATATGTCCCCCGTGTCTCGTCTGACTTGGAGCCCGGNCCTCCCACCCGTGTC--CTCTAC-ACCTGTTG
CTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGAC-G--TTGTCCCCGGGCCCGCGCCCGCCGAAG-
CGCCCTGTGAACCTGATGAAGATGG-GCTGTCTGAG-A-TGATG-AAAATTGTCAAAACTTTCAACAATGGATCTCT
TGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCCGTGAATCATCGAAT
CTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCAC
GGCTTGTGTGTTGGGTGTGGTCCCC--GGGGACCTGCCCCGAAAGGCAGCGGGCGACGTCCGTCC--GGTCCTCGA
GCGTATGGGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_euchlorocarpus_PF_1203

TGAGATACCCGG-TTGTGCG-----GCA----ATGTTATGTTGGT-GGGTGGTT-ATCTAACTAG-CCG---TTT-----TGAT
G-AATAGGACAAGGATGGAGATGGTGAGT-----GATCCGC----CACGAA--CACCAGCG-ACATGGTCTTT
AGAACGAGG-----CTATACAGAATAGATACACGGACAGCATGTTGA-----TTATATC-GAATAGGTCAAATCACAAC
CAAGGAACTGGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACG
AGGTGACGCTGACAACAACGGCACAATCGATTTCCCTGGTATGATACC-----AGCACGTCTGCGC-TGAATAG
ATACGG-----TGCGG---G-ACTAACTGC--CTA---TAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATAC
CGACTCCGAGGAAGAGATCCGCGAGGCTTCAAGGTGTTGACCGCGACAACAATGNGTGAGTTGG-ACTTTG-
ACAAAA-----AACTTTC-AGTCAATTGTCGCGAC-ACCACGCTGACT-----CT-TTGCAGGCAAATCATCTCCGCTGA
GCACGGTCTCGACGGCTCTGGTGTGTAA-----GTG-TT-GGC AAAA-TTCGAAATCCAGCTACAATCCGACA--A-TA
TCTGA-TAATCACCAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGC
GTTA-----AGAA-----CATCATCAAAT--AAACCG-AAAGACAAA-----ACACTCATCG--TTCG-----ATAGG
CTTCCGGCAACAAATATGTCCCTCGTGTCTGCTCGTCTGACTTGGAGCCCGGNCCTCCCACCCCTTGTCT-CTATA
C-ACCTGTTGCTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGAC-G-TCCGTCCCCGGGCCCGCGC
CCGCCGAAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAAACTTTAAC
AATGGATCTCTTGGTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCCGTG
AATCATCGAATCTTTGAACGCACATTGCGCCCCATGGCATTCCGGGGGGCATGCCTGTCCAGCGTCATTTCTGC
CCTCAAGCGCGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCCGAAAGGCAGCGGGCGACGTCCGT
CC-GGTCCTCGAGCGCATGGGGCTTTGCTACTCGACTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_flavovirens_CBS_102801

TG-GCTATCTAC-TTATC-----GCA----ATGTTG---TGG--GAGTGATT-AGCTGACTAG-CCC---CTT-----TGATG-AG
TAGGACAAGGACGGAGATGGTGAGT-----CGCCACGAACACGGA--CAACAACC-AAAAGATTCTCA-A

TAAAGG-----CTATC---G-----ACGAATA-AATGTTGA-----CTTTATT-GAATAGGTCAAATCACAAACCAAGGAACTG
GGCACCGTCATGCGTTCTCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGC
TGACAACAACGGCACAATCGATTTTCTGGTATGACAAA-----GCACACTATCACGTCAATATTCCA-----
TGGCAG----T-ACTAACTGC--C-G---CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGG
AAGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTTTG-A--CTCG-AC--CCA-----AAC
TTTC-TCTCAATTGTCGCGAC-AAAACCCTGACT-----T-TTTCAGGCAAATCATCTCTGCTGAGCACGGTCTCGATG
GCTCGGGTGTGTAA-----GTA-TT---CACCA-TTCG-AATCCAGCTACAATCCGACA--A-TGTCTGA-TCGTCAACAG
CTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTGC-----AAC--
---AAAT-CCACCATAT--AACGA-A--ACAAATAAAGAAACAGACTCAC-A--ATGG----TA-TAGGCCTCCGGCAACAAAT
ACGTCCCTCGTGTCTCTCGTCTGACTTTGGAGCCCGGNCCTCCCACCCTTGTC--CTCTAC-ACCTGTTGCTTTGG
CGGGCCACC-GGGGCGACCTGGTCGCCGGGGGAC-G-AACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCT
GTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CGATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTC
CGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGA
ACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTT
GTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGGCGACGTCCGTC--GGTCTCGAGCGTA
TGGGGCTT-GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_flavus_CBS_310.38

TG-GATTTCCGG-TTGTG-----GCA----ATGTGG---TGGT-GGGTGGTT-AGCTGACTAG-CCG---TTT-----GGATG-
AGTAGGACAAGGATGGAGATGGTGAGT-----GAAC----CACGAA--CACCAACG-ATACAGCAACGA-AT
AAGTA-CTGTCGTTATG-ATT-----GCGAGCAAATTATTGA-----CGGGGACTGAACAGGTCAAATCACAAACGAAG
GAACTGGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGT
CGACGCTGACAACAACGGCACAATCGATTTCCCTGGTATGGCAA-----ACCTGTCTACGGT-TATTA-----CAA--
-----TGGCAG----A-ACTAACTGC--CAA---CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGATACCGATTCC
GAGGAAGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGTGATAACAATGNGTGAGTTTG-ACTCTCG-AC--CGA---
---AACTCTC-----AATTGTCGCGAC-AACACGCTGACT-----T-TTCCAGGCAAATCATCTCCGCTGAGCACGGTCTCG
ACGGCTCCGGTGTGTAA-----GTA-TT--ACACGA-TTCA-AATCCAGCTACGATCCAACA--A-TATCTGA-TAATCAAC
AGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTCA-----AA
C-----CACT-CCACCTAAT--AAACGGAA--GACAAA-----CTCAT-G--ATCG-----ATATAGGCTTCCGGCAACAAATAT
GTCCCTCGTGTCTCTCGTCTGACTTTGGAGCCCGGNCCTCCCACCCTTGTC--CTATAC-ACCTGTTGCTTTGGCG
GGCCACC-GGGGCCACCTGGTCGCCGGGGGAC-G---CGTCTCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTG
AACCTGATGAAGATGG-GCTGTCTGAG-A-CTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCGG
CATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACG
CACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTG
GTTGGGTGCGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGGCGACGCCGTC--GGTCTCGAGCGTATGG
GGCTC-GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_funiculosus_CBS_272.86

TG-GATTTCCGG-TTGTG-----GCA----ATGTTA-----TGGTGGTT-AGCTGACTAG-CCG---TTG-----AAATA-ATT
AGGACAAGGATGGAGATGGTGAGT-----CCGC-----CACGAA--TGATAACC-AGATGATCTTGA-GCAAA
GT-----TTATC-GCA-----TCGAATA-TATATTAA-----CTATATT-CAAAAGGCCAAATCACAAACCAAGGAACTGGGC
ACTGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAATGAAGTCGATGCTGAC
AACACGGAACAATCGATTTCCCTGGTATGACAAA-----CTGCAAAC-TCTCAGTTTCTA-----CCACA
G----T-ACTAACTAA--C-A---CAGAATTCCTGACTATGATGGCCCGCAAATGAAGGATACTGACTCCGAGGAAGAGA
TCCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTA-ACTCAAAC-AC-----TATCAATT
GGCGCAAC-AACACACTGACT-----C-GTCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGACGGTCCGGTGT

GTAA-----GTA-TT---CACGA-TCCG-AAACCAACTACAATCAGACA--G-TATCTGA-TAATCAACAGCTACAATGGCT
CCTCCGATCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTAA-----AAC----AAAT-TCATCG
TAC--AAACGGAA---ATAAA-----TCTCAT-A--ACGG----TC-CAGGCCTCCGGCAACAAATATGTCCCTCGTGCTG
TCCTGGTCGATTTGGAGCCCGGNCCTCCCACCCCTTGTC--CTCTAC-ACCTGTTGCTTTGGCGGGCCAC--GGGG
CC-CCTGGTCGCCGGGGGAC-G--CCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTTCGTGAACCCTGATGAAG
AAGG-GCTGTCTGAG-A-CTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGTTCCGGCATCGATGAAGAA
CGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCC
CTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCAATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGT
CCCC--GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTCACTCG
-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_galapagensis_CBS_751.74

TG-GATTTCTGG-TTGTG-----GCA---TTGTTT---TGGT-GGCTGGTT-AGCTGACTAG--CG---TTT-----TGATG-A
GTAGGACAAGGATGGTGTGTTGAGT-----CCGC----CACGAA--CA-CGATG-ATATCGTCTCGA-ACAA
AGG-----TTGTT-TC-----ACGAACA-GATATTGA-----TAAACTC-CAATAGGCCAAATCACAACCAAGGAATTGG
GCACTGTCATGCGTTCCCTCGGTGAGAACCCTCCGAATCTGAATTGCAGGACATGATCAACGAAGTCGACGCT
GACAACAACGGCACAATTGATTTCCCTGGTATGACAAACCACAA-----GCTCGCGATT-T-----TTA-----TGG
CGATACTT-ACTAACTGC--C-G---CAGAATTCTTGACGATGATGGCCCGTAAAATGAAGGATACCGACTCCGAGGAA
GAGATCCGTGAGGCATTCAAGGTGTTTGACCGTGACAACAATGNGTAAGTTTG-ACTGTCA-AC--CCG-----AACTT
TG-CCTCAGTTGTCGCGAC-AACACACTGACT-----T-CTCCAGGCAAATCATCTCTGCTGAGCACGGCCTCGATGG
CTCTGGTGTGTAA-----GTA-TT--GCACGA-TTCG-AATCTAGCTCCAATCCGACA--A-TATCTGA-TTGTCAATAGCT
ACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTA-----TAAA-----
ACAC-TCGACTTAT---GCAG-A---ACAAA-----CACTC-A--TTGG-----TA-TAGGCCTCCGGCAACAAATACGTTCC
CCGTGCTGTCCCTCGTCGACTTGGAGCCCGGNCCTCCCACCCCTTGTC--CTATAC-ACCTGTTGCTTTGGCGGGCC
CACC-GGGGCCACCTGGTCGCCGGGGGAT-A-CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAAC
CCTGATGAAGATGG-GCTGTCTGAG-A-CTGTG-AAAATGGTCAAACTTTCAACAATGGATCTCTTGTTCCGGCA
TCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCA
CATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGT
TGGGTGTGGTCCCCC--GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGGGG
CTC-GTCACTCG-CTCGGGACGGACCTGCGGGGGTTGGTCA

>Talaromyces_indigoticus_CBS_100534

TG-GATTCCTGG-TTGTG-----GCA---ATGTTG---TGGT-GGGTGGTT-AGCTGACTAG--CG---GTT-----TGATG-A
GTAGGACAAGGATGGTGTGTTGAGT-----TCGC----CACGAA--CAACGACC-AAAAGACCTTGA-ACA
AAGG-----TCATT-GCT-----ACGAACA-GATATTGA-----CTATATC-GAATAGGTCAAATTACGACCAAGGAATTGG
GCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCT
GACAACAACGGCACAATTGATTTCCCTGGTATGACGAA-----CCACACCACCAC-TCGCAATATTACA-----
TAGCAG----T-ACTAACTGC--T-A---CAGAATTCTTGACAATGATGGCTCGCAAAATGAAGGATACCGACTCCGAGGA
AGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTG-ACTCCCG-AC--CCA-----AAC
TTTC-GATCAATTGTCACGAC-AACACGCTGACT-----T-TTCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGAC
GGCTCTGGTGTGTAA-----GTA-TT--ACACGT-TTCG-AATCCACCTACCATCCGGCA--G-TGTCTGA-TTATCAACA
GCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTA-----GAA-
---GACTCTCGACTCAT---GCAG-A---ACAAA-----CACTC--ATTG-----GTATAGGCCTCCGGAAACAAATATGTC
CCCCGTGCTGTCCCTCGTCGACTTGGAGCCCGGNCCTCCCACCCCTTGTC--CTATATAACCTGTTGCTTTGGCGGG
CCCACCCTGTG--GCCAGGTGCGCGGGGGAC-G--TCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGTGAA
CCCTGATGAAGATGG--CTGTCTGAGTC-GTATG-AGAATCGT-AAAACCTTTCAACAATGGATCTCTTGTTCCGGCA

TCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCCGTGAATCATCGAATCTTTGAACGCA
CATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTCTGCCCTCAAGCACGGCTTGTGTGT
TGGGTGTGGTCCCCC-GGGGACCTGCCGAAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGGGG
CTT-GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_intermedius_CBS_152.65

TG-GATTCTAG-TTGTG-----GCA----ATGTTATGCTGGT-GGGTGGCT-AGCTGATTAG-CCG---TTT-----TGATG
-AGTAGGACAAGGATGGAGATGGTGAGT-----GATCCGC----CTCGAC--CACCGACG-AGATAGTCTTCG
AACAAAGGCTTT---TGTTCCGAT-----GTGGACAGCATATTGA-----CTATATCGGAATAGGTCAAATTACAACCAA
GGAGCTCGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAG
TCGACGCTGACAACAACGGCACAATTGATTTCCCTGGTATGACACA-----CTACAAC-TCGCAATCGTCTA-
-----TGGCAG---TTGCTAACTGCTAC-A---CAGAATTCTTAACAATGATGGCCCGCAAATGAAGGATACCGACT
CCGAGGAAGAGATCCGGGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTGA-ACCTTTGA-AA-AC
A-----AACTCTG-GGTCAATTATCGCGAC-AACACGCTGACT-----C-TTCCAGGCAAATCATCTCTGCTGAGCACGG
TCTCGACGGCTCTGGTGTGTAA-----GTATTT--ACACGA-TTCGAAATCCGATTACAATCCGACA--A-TATCTGA-TA
ATCAACAGTTACAATGGTTCTCCGATCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTTTCGTCA-----
-----GAA-----CAAT-CCGCCAAAC--AAATCAAA--CACAAG-----ACTCATCA--CTGG-----TATAGGCTTCGGCAA
CAAATATGTCCCCCGTGTCTGCTCGTACTTGGAGCCCGNCCCTCCACCCTTGTC--CTATAC-ACCTGTTGC
TTTGGCGGGCCACC-GGGGCCACCTGGTCGCCGGGGGAC-G---CGTCCCCGGGCCCGCGCCCGCCGAAG-CG
CCCTGTGAACCCTGATGAATATGG-GCTGTCTGAG-A-CTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTG
GTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCCGTGAATCATCGAATCT
TTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACG
GCTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAG
CGTATGGGGCTT-GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_liani_CBS_225.66

TA-GCAATCTGG-TTGTG-----GCA----ATGTTG---TGGT-GGGTGGTT-AGCTGACTAG-CCG---TTT-----TGATG-
AGTAGGACAAGGATGGAGATGGTGAGT-----CGGC----CACGAA--CAATATCC-AAAAGGCGTTGA-AC
AAGGG-----TTATC-GCC-----GCGAACA-GATATTGA-----CTATATC-GAATAGGTCAAATCACAACCAAGGAACT
GGGCACTGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATGCAGGACATGATCAACGAAGTTCGACG
CTGACAACAACGGCACAATCGATTTCCCTGGTATGATATA-----ATTGCTCACAGGA-TATTA----CGA-----T
GGCAG---T-ACTAACTGC--C-G---CAGAATTCCTGACAATGATGGCCCGCAAATGAAGGACACCGACTCCGAGGA
AGAGATCCGCGAGGCATTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTGG-ACTCTCG-AC--CCG-----AAC
TTTC-TCTCAATTGTCGCGAC-AACACGCTGACT-----T-TTCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGATG
GCTCTGGTGTGTAA-----GTA-TT--GCACGA-TTCG-ACTCCAGCTACGATCCGACG--A-TATCTGA-TAATCAACAG
CTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTCA-----AC----
-CAAT-CCATCGTAT--AAACGG-A---ACAAA-----GCTCAT-A--CTGG-----TGTAGGCCTCCGGCAACAAATACGTT
CCCCGTGCTGTCTCGTACTTGGAGCCCGNCCCTCCACCCTTGCTCCTATAC-ACCTGTTGCTTTGGCGG
GCCACC-GGGGCCACCTGGTCGCCGGGGGAC-G-CACGTCCCCGGGCCCGCGCCCGCCGAAG-CGCGCTGTG
AACCCTGATGAAGATGG-GCTGTCTGAG-A-CTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGG
CATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACG
CACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGT
GTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGG
GGCTC-GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_macrosporus_CBS_317.63

TG-GATTCTAG-TTGTG-----GCA----ATGT-----GGTGATT-CGCTGACTAG-CCG---TT-----TGATG-CGCA

GGACAAGGATGGAGATGGTGAGT-----CCGC-----CACGAA--CAATAGCC-AAAAGGCCTCGA-ACAAA
GG-----CCGTC-GCT-----GCGAACA-GATATTGA-----CTATATC-GAATAGGCCAAATCACAACCAAGGAACTGG
GCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATGCAGGACATGATCAACGAGGTTCGATGCT
GACAACAACGGCACAATCGACTTCCCTGGTATGACAAA-----CTACAAAC-TCGCA---TTCTA-----TGG
CAG---T-ACTAACTGC--C-G--CAGAATTCTTGACAATGATGGCCCGCAAGATGAAGGATACCGACTCCGAGGAAG
AGATCCGCGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTG-ACTCTCG-GC--CCA-----ACCTTT
C-TATCAATGGTCGCGAC-AACACGCTGACT-----TT-TTCCAGGCAAATCATCTCCGCTGAGCACGGTCTCGACGG
CTCTGGTGTGTAA-----GTA-TT--CACGA-TTCG-AATCCAGCGACAATCCGACA--A-TATCTGA-TGATCAACAGCT
ACAATGGCTCCTCCGACCTCCAATTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTCA-----AAC-----C
AAT-TCATCGTAT--AAACGG-A--ATAAA-----ACTCAT-A--ATGG-----AATAGGCCTCCGGCAACAAATATGTCCCC
CGTGCTGTCTCGTATTGGAGCCCGGNCCTCCACCCTTGTC--CTATAC-ACCTGTTGCTTTGGCGGGGCCA
CTGGGGGGCCCCCTGGTCGCCGGGGGAC-A-TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCC
TGATGAAGATGG-GCTGTCTGAG-A-TTATG-AAAATTGTCAAAACTTTCAACAATGGATCTCTTGGTTCGGGCATCG
ATGAAGAACGCAGCGAAATGCGATAAGTAATGTAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACAT
TGCGCCCCCTGGCATTCCGGGGGCATGCCTGTCCGAGCGTCAATTTCTGCCCTCAAGCACGGCTTGTGTTGTTGG
GTGTGGTCCCCCC-GGGGACCTGCCGAAAGGCAGCGCGACGTCCGTC--GGTCTCGAGCGTATGGGGCTC-
GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_marneffeii_CBS_388.87

TG-GATTTCTGG-TTGTG-----GCA----ATGTTG---TGGT-GGGTGGTT-CGCTGACTAG-CCG---TTT-----GGATG-
AATAGGACAAGGATGGTGATGGTGAGT-----GACGC-----CACGAA--CACCAGAC-ATATAGTCTTCGAA
CAAAAAG-----TTATT-ACT-----GCGAACA-GATATTAA-----TAACATC--AATAGGTCAAATTACAACCAAGGAACT
GGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTTCGACG
CTGACAACAACGGCACAATCGATTTCCCTGGTATGATGCA-----GCCTCTATTTATCGCAGCCGTTTCCGATCATAA-
-----GGGCAG---ATACTGACTGC--C-T--TAGAATTCTTGACAATGATGGCCCGCAAAATGAAGGATACCGACTC
CGAGGAAGAGATCCGCGAGGCTTTCAAGGTGTTTGATCGTGACAACAATGNGTGAGTTTG-GCTCTCA-ACAAAC
ACATCACAACCTTTC-AGTCACTTGTGCGAC-AACACGCTGACTC-----TT-TTCCAGGCAAATCATCTCCGCCGAGC
ACGGCCTCGACGGCTCCGGTGTGTAA-----GTA-TT--ACACGA-TTCA-AATCCAGCTACAATCCGACA--ATTATCT
GA-TGATCAACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTC
A-----GAC-----CCTT-CCACCTAAT--AAACCGAA--GACGAA-----CTCATCATCATCG-----ATATAGGCTTC
CGGCAACAAATATGTCCCCGTGCTGTCTCGTACTTGGAGCCCGGNCCTCCACCCTTGTC--CTATAC-ACC
TGTTGCTTTGGCGGGCCACC-GGGGCCACCCGGTCCGCCGGGGGAC-G--TTGTCCCCGGGCCCGCGCCCGCC
GAAG-CGCCCTGTGAACCCCTGATGAAGATGG-ACTGTCTGAG-A-CCATG-AAAATTGTCAAAACTTTCAACAATGGA
TCTCTTGGTTCGGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCCGTGAATCAT
CGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCA
AGCACGGCTTGTGTGTTGGGTGTGGTCCCTCC-GGGGACCTGCCGAAAGGCAGCGCGACGTCCGTC--GGTC
CTCGAGCGTATGGGGCTC-GTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_muroii_CBS_756.96

TG-GATTTCTAC-TTGTG-----GCA----ATGTTG---TGGT-GGGTGGTT-AGCTGACTAG-CCG---TTT-----TGATG-A
GTAGGACAAGGATGGAGATGGTGAGT-----CCGC-----CACGAA--AAATAACC-AAAAGGCCTTGA-ACA
AAGG-----TTATC-GCT-----GCGAACA-GATATTGA-----CTATGTC-GAATAGGTCAAATCACAACCAAGGAACTG
GGCACCGTCATGCGTTCTCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTTCGACGC
TGACAACAACGGCACAATCGATTTCCCTGGTATGACAAA-----CCACAAGC-TCGCAATAATCTA-----T
GGCAG---T-ACTAACTGC--C-G--CAGAATTCTTGACAATGATGGCCCGCAAAATGAAGGATACCGACTCCGAAGA
AGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTTTG-ACTCTCG-AC--CCG-----AAC

TTTC-TATCAATTGTCGCGAC-AACACGCTGACT-----T-TTCTAGGCAAATCATCTCTGCTGAGCACGGTCTCGATG
GCTCTGGTGTGTAA-----GTA-TT--GCACGA-TTCG-ATTCCAGCTACAATCCGACA--A-TATCTGA-TTATCAACAGC
TACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTA-----GAAA----
-ACAC-TCGACTCAT---GCAG-A---ACAAA-----CACTC-A--TTTG-----AA-TAGGCCTCCGGCAACAAATACGTTT
CCCGTGTCTCCTCGTCTGACTTGGAGCCCGGNCCTCCCACCCTTGTCTGTTTATA--ACCTGTTGCTTTGGCGGGC
CCACC-GGGGCCACCTGGTCGCCGGGGGAC---ACGTTCCCGGGCCCGTGCCCGCGAAG-CGCCCCTAGAACT
CTGGTGAAGCTAG-GCTGTCTGAG-C-TTATG-AAAATAGT-AAAACCTTCAACAATGGATCTCTTGGTTCCGGCATCG
ATGAAGAACGCGAGCAAATGCGATAAGTAATGTAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACAT
TGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTTGTGTGTTG
GGTGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTCG-GGTCCTCGAGCGCATGGGGC
TT-GTCACTCG-CTCGGGAGGGACCCGCGGGGGTTGGTCA

>Talaromyces_oumae-annae_CBS_138208

TG-GATTTCTGA-TTGAC-----GCA---ATGTTT--GTGAT--CGTGGTT-AGCTGACTAG-CCG---TTT-----TGATG-A
GTAGGACAAGGATGGAGATGGTGAGT-----GACCGC----CACGAA--CGTCGATG-ATACAGTCAACG-AA
TAAGGGCTATCCTTATG-ATT-----GCGAACAGCATATTGA-----TGGTATTTGAACAGGTGAGATCACCACCAAGG
AATTGGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTC
GACGCTGACAACAACGGCACAATCGATTTCCCTGGTATGACATA-----ACCTATCAGACGCAGCCATATATGACTAT
CGAG-----TGGCAG---A-ACTAATTGC--C-A--CAGAATTCTTGACAATGATGGCCCCGAAAATGAAGGATACCG
ACTCCGAGGAAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTTTG--GTCCCG-AC-
-CCA-----AACTTTC-TATCAATCGTCGCAAC-AACATGCTGATT-----C-TTTCAGGCAAATCATCTCTGCTGAGCACG
GTCTCGACGGCTCTGGTGTGTAA-----GTG-TT--ACACGA-TTCG-AATCCAGCTACAATCCGACA--A-TATCTGA--
CATCAACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTCA-----
-----GACCATCTCACC-ACACCAGAT---AACCCGA---ACAAA-----ACTCAT-A--ATTG-----GTATAGGCCTCCGG
CAACAAATATGTCCCTCGTCTGTCTCGTCTGACTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTACAC-ACCTGT
TGCTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGACGTTTCGTCCCCGGGCCCGCGCCCCGCG
AAG-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAACTTTCAACAATGGAT
CTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATC
GAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAA
GCACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTCT-GGTC
CTCGAGCGTATGGGGCTCTGTCACTCG-CTCGGGACGGACCTGCGGGGGTTGGTCA

>Talaromyces_panamensis_CBS_128.89

TG-GATTTTTAGTTGGTC-----GCA---ATGTTG---TGGT-GGGCTGTT-AGCTGACGCG-CCG---TGT-----TGATG-
AGTAGGACAAGGATGGCGATGGTGAGT-----GATCCGC----CACGAG--CACCAACA-ATGCAGTTTTGA-
GCAAGGGATATGATGATGAAAC-----ATGAACAACGGATTGA-----TTGTATCTAAATAGGTCAAATCACAACCAA
GGAAGTCCGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAGG
TCGACGCCGACAACAACGGCACAATCGATTTCCCTGGTATGAGCCA-----ACCCGTCTACGTT-TGTTA----CG
G-----GGGCAG---A-ACTAACTGC--CTA---CAGAATTCTTGACAATGATGGCTCGCAAAATGAAGGATACCGACT
CCGAAGAAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTTTG-ACGTTAA-AC--AC
AACG---AGCTTTA-CATCAATTGTCGCGAC-AATACGCTGACT-----CT-TTCCAGGCAAATCATCTCTGCTGAGCACG
GTCTCGACGGCTCTGGTGTGTAA-----GTG-TTGGACACGA-TTCGAACTCCGGCTGCAATCCGACA--A-TTTTTA
A-CGATCAACAGTTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTACTTCAACGAGGTGCGTTA--
-----GGA-----ACAGTCGATCCAAGCGAGA--AACAAA-----CTCATCA--ATTG-----ATATAGGCCCCCCGG
CAACAAATATGTCCCTCGTGCCGTCCTCGTCTGACTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTACAC-ACCTGT
TGCTTTGGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGAC-G---CGTCCCCGGGCCCGCGCCCCGCGAA

G-CGCCCTGTGAACCCTGATGAAGATGG-GCTGTCTGAG-A-CGATG-AAAATTGTCAAACTTTCAACAATGGATCT
CTTGGTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGA
ATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGC
ACGGCTTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGAAAGGCAGCGGCGACGCCCGTC--GGTCT
CGAGCGCATGGGGCTT-GTCACTCG-CTCGGGATGGACCTGCGGGGGTTGGTCA

>Talaromyces_pinophilus_CBS_631.66

TG-GAAATCTGG-TTGTG-----GCA----ATGTTG---TGGT-GGATGGTT-AGCTGACTAG-CCG---TTT-----TGATG-A
GTAGGACAAGGATGGAGATGGTGAAT-----CCGC----CACGAA--CACGACGA-TATTTGTCTCGA-ACA
AAGG-----TTTTT-TC-----ACGAGCA-TATATTGA-----TAAAATC-TAATAGGCCAAATTACAACCTAAGGAACTGGG
CACCGTTATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATGCAGGACATGATCAACGAAGTGCAGCGTG
ACAACAACGGCACAATCGATTTCCCTGGTATGATATA-----ATTGTTACGGGT-T---TATA--CGA-----TGGC
AG---T-ACTAACTGC--C-G--CAGAATCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGA
GATCCGTGAAGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTGG-GCTCTCG-AC--CTG-----GAATTC
-TATCAATTGTCTGAC-ACCACGTTGACT-----T-TTCCAGGCAAATCATCTCTGCTGAGCATGGCCTCGATGGCTC
TGGTGTGTAA-----GTA-TT--ACACGA-TTCG-AATGCAGCTACAATCCGACA--A-GATCTGA-TAATCAACAGCTACA
ATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTCG-----AAC-----CAAT
-CCATTGTAT---AAGGG-A---ACAAA-----GCTCAT-A--CTGG-----TG-TAGGCCTCCGGCAACAAATACGTTCCCGG
TGCCGTCCTCGTCACTTGGAGCCCGNCCCTCCACCCTTGTC--CTATAC-ACCTGTTGCTTTGGCGGGCCAC
C-GGGCCACCTGGTCGCCGGGGGAC-G-CACGTCTCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCT
GATGAAGATGG-GCTGTCTGAG-A-CTGTG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGA
TGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATT
GCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGG
GTGTGGTCCCCC-GGGGACCTGCCCGAAAGGCAGCGGCGACGTCCGTC--GGTCTCGAGCGTATGGGGCTC-
GTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_primulinus_CBS_321.48

TT-CATTCTGG-TTGTG-----GCA----ATGTTG---TGGT-GGGTGGTT-AGCTGACCAG-CCG---TTT-----TGATG-A
GTAGGACAAGGATGGAGATGGTGAAT-----GACCAC-----CGAA--CACCAACG-TTACAGTCAACG-AAT
AAGGGCTATCTTTATG-ATT-----GGGAACA-GGTATTAA-----TCGTC-GAATAGGTCAAATCACAACCAAGGAAC
TGGGCACCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAGTTGCAGGACATGATCAACGAAGTGCAG
GCTGACAACAACGGCACAATCGATTTCCCTGGTATGACTCA-----TCACGTCTATTGCTTGATACGA-----
--TGGCAG----T-ACTGACCGC--T-G--CAGAATTTTGAACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAG
GAAGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTCTG-AATCTCG-AC--TCG-----A
ACTTTG-TACTAATTGTCGCGAC-AATACGCTGACT-----CT-TTCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGA
CGGCTCTGGTGTGTAA-----GTA-TT--ACGCGA-TTCG-AACCCAGCTACAATTCGACA--A-TATCTGA-TCTTCAAC
AGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTCA-----GA
C-----CACT--TACCAGAT--AAACCG-A---ACGAA-----AACTCAT---ATTT-----TAATAGGCCTCCGGCAACAAATATG
TCCCCCGTGTCTCCTCGTCACTTGGAGCCCGNCCCTCCACCCTTGCTCT-CTCTAC-ACCTGTTGCTTTGGCG
GGCCACC-GGGGCCACCGGTGCGCGGGGGAC-G-CTCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCCCTGT
GAACCCTGATGAAGATGG-GCTGTCTGAGTA-TTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCG
GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAAC
GCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTTGT
GTGTTGGGTGCGGTCCCCC-GGGGACCTGCCCGAAAGGCAGCGGCGACGTCCGTC--GGTCTCGAGCGTAT
GGGGCTTTGTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_purpurogenus_CBS_286.36

TGCAATCATTGT-TTG-----GGT---ATGTTG-----TTGGCCGGTT-ATCTAATTAGCCCG---TTT-----GGATG-AGT
AGGACAAGGATGGTGTATGGTGTAGT-----TCACCCGGACACGCAGCGATCAACG-ATAAGACTCTGA---
-----ACAGGATATTTA-----CTATATC-GATTAGGTCAAATCACAACCAAGGAAGTGGGCACCGT
CATGCGCTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTTGACGCTGACAACA
ACGGCACAATCGATTTCCCTGGTATGATGA-----CTCTCGCTACAATC-TACTGCGGATAGG-----TAACTG--
---ATTGATAAT--GGA---TAGAATCTTGACAATGATGGCCCGAAAATGAAGGATACCGACTCCGAGGAAGAGATC
CGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGGAATGA-----CCA-----CGCTTTC-AGTCAAT
TGTCGCGAC-GACTCGCTGACT-----AT-TTTCAGGCAAATCATCTCTGCTGAGCACGGTCTCGATGGATCCGGCGT
GTAA-----GTGTTG--ATGGGA-TTCGAAATCCATCTACAATTCGACC--G-TATCTGA-TAATCAACAGTTACAATGGC
TCCTCCGACTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTGC-----AAC-----AA---CCAAC
CAATAGAAACAAA---ACAAA-----AACTCAT-A--TCCAATGCTTAACAGGCTTCCGGCAACAAATATGTTCTCTGT
GCTGTCTCGTGCAGTTGGAACCCGGNCCTCCCACCCCTTGTC--CCA-AC-ACCTGTTGCTTCGGCGGGCCACC-
GGGGCCACCCGGTCGCCGGGGGAC-A-TCCGTCCCCGGGCCCGCGCCCGCCGAGG-CGCTCTGTGAACCCTGA
TGAAGATGG-GCTGTCTGAGGA--TATG-AAAATTGTCAAACCTTCAACAATGGATCTCTTGGTTCCGGCATCGATG
AAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGC
GCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGT
GTGGTCCC-CC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-GTC
ACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_ruber_CBS_132704

TG-GAAACTTGGTTTGTGTC-----ACA---ATGTTG---GC-----GTGGTT-AGCTGACTAG-CCG---TTT-----TGATG-AA
TAGGACAAGGATGGAGATGGTGTAGT-----CGC-----CGCGAA--CAATGA-----AACACCTTGA-ACGAAC
A-----TTACC-GCA-----GTCAACA-GACATTGA-----CCCTATC-GGACAGGACAAATCACAACCAAGGAAGTCCG
CACAGTCAATGCGTTCTCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTG
ACAACAACGGCACAATTGATTTCCCTGGTATGACTGA-----CCACCAAC-TCGCAATATTTGA-----TGG
CAG---T-ACTGACTGC--C-G---CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAG
AGATCCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTG-A--CTCG-AC--CCA-----AGCTTAC
-TATCAATTGTGCGAC-AGCACGCTGACT-----A-GACCAGGCAAATCATCTCTGCTGAGCACGGTCTCGATGGCT
CTGGTGTGTAA-----GTA-TT--TCACAA-TTGG-AATACACCTACAGTTGACG--A-TATCTGA-TCATCGACAGCTAC
AATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTA-----GAAA----GTC
TC-TCGACTCCT---ACAG-A--ACAGA-----CACTC-A--TTCA-----TC-TAGGCCCTCCGGCAACAAATATGTCCTC
GTGCCGTCTCGTGCAGTTGGAGCCCGGNCCTCCCACCCCTTGTC-CTATAC-ACCTGTTGCTTTGGCGGGCCCA
CC-GGGGTACCTGGTCGCCGGGGGACAA-TCTGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCC
TGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAACCTTTCAACAATGGATCTCTTGGTTCCGGCATCG
ATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACAT
TGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTG
GGTGCGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGGGGCT
TTGTCACTCG-CTCGGGAAGGGCTGCGGGGGTTGGTCA

>Talaromyces_rubicundus_CBS_342.59

TG-GATTTCTTC-TTGTGTC-----GCA---ATG-----TGGT-GGGTGGTT-AGCTGACTAG--CG---GTT-----TAATG-AGT
AGGACAAGGATGGAGATGGTGTAGT-----TCGC-----CATGAA--CAACGAAC-AAAAGACCTTGC-TCAA
GG-----TCATT-GCT-----GCGAACA-GATATTGA-----CTATATC-GAATAGGTCAAATCACAACCAAGGAATTGGG
CACTGTCAATGCGTTCCCTCGGCCAGAATCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTG
ACAACAACGGCACAATCGATTTCCCTGGTATGACGAA-----CCACACTACCAC-TCGCAATATTCCA-----T
AGCAG---T-ACTAACTGC--T-A---CAGAATTCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAAGAA

GAGATCCGTGAGGCTTTCAAGGTGTTGATCGTGACAACAATGNGTGAGTTTGAACCTCCCG-AC-CCA-----ACCT
TTC-CATCAATTGTCGCGAC-AACACGCTGACT-----T-TTCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGACG
GCTCTGGTGTGTAA-----GTA-TT--AGACCG-TACG-AATCCGACTACAATCCGACA--G-TATCTGA-TTATCAACAG
CTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTA-----GAAA--
---ACAT-TCGACTCAT---GCAG-A---ACAAA-----ACACTC--ATTG----GTATAGGCCTCCGGAAACAAATATGTCC
CCCGTGTCTCCTCGTCTGACTTAGAGCCCGGNCCTCCCACCCTTGTGCT--CTATA--ACCTGTTGCTTTGGCGGGCC
CACC-GTGA-----GGTCGCCGGGGGAC-G-AACGTCCCCGGGCCCGCCCGCCGAAG-CGCCCTGTGAACCCTG
ATGAAGATGG-GCTGTCTGAG---GTACG-AAAATCGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCATCGAT
GAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACATTG
CGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGG
TGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGGGGCTC-G
TCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_sayulitensis_CBS_138204

TG-CAAATCTGG-TTCTC-----GCA---ATGTTG---TGGT-GGGTGGT-AGCTGACTAG-CCG---TTT-----TGATG-
AGTAGGACAAGGATGGAGATGGTGAGC-----CCGC-----CACGAA--CAATAACC-AAAAAGCCTTGA-AC
AAAGG-----TTGGT-TC-----GCGAACA-AATATTGA-----TATGCTTGAATAGGCCAGATCACAACCAAGGA
GGGCACCGTCATGCGTTCTCTCGGCCAGAACCCTCCGAATCCGAATGCAGGACATGATCAATGAAGTGGACG
CTGACAACAACGGCACAATCGATTTTCTGGTATGATATA-----ATTGCTCACGGAT-TATTA----CGA-----T
GGCAG---T-ACTAATTGC--C-G---CAGAATTCTTGACAATGATGGCACGAAAATGAAGGATACCGACTCGGAAGAA
GAGATCCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTGG-ACTCTCG-AC--TCG-----GACT
TTC-TATCAATTGTCGCGAC-AACACGCTGACT-----T-TCCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGATGG
CTCTGGTGTGTAA-----GTA-TT--GCACGATTTG-AATCCGGCTACAATCCGACG--A-TATCTGA-TAATCAACAGC
TACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTATTTCAACGAGGTGTGTCG-----AAC-----
CAAT-CCATCGTAT---AACGG-A---ACAAT-----ACTTAT---ATTA-----GTATAGGCCTCCGGCAACAAATACGTTCCC
CGTGTCTCCTCGTCTGACTTGAACCCGGNCCTCCCACCCTTGTCTCTAATAC-ACCTGTTGCTTTGGCGGGGCC
ACC-GGGGCCACCTGGTCGCCGGGGGAC-G-CACGTCCCCGGGCCCGCCCGCCGAAG-CGCTCTGTGAACC
CTGATGAAGATGG-GCTGTCTGAGTA-CTGTGAAAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCCGGCAT
CGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCAC
ATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTT
GGGTGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATGGGGC
TCTGTCACTCG-CTCGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_siamensis_CBS_475.88

TG-ACTTTCTAC-TTATC-----GCA---ATGTTG---TGGT--GGTGGT-AGCTGACTAG-CCG---GTT-----TGATG-AA
TAGGACAAGGATGGAGATGGTGAGT-----CGCCACGAACACAAA--CAACAACC-AAACGACTTTGA-A
CAAAGG-----CTATC---A-----ACGGACA-GTTATTGA-----CTCTATC-GAATAGGTCAAATCACAACCAAGGA
GGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATGCAGGACATGATCAACGAGGTGCGAC
GCTGACAACAACGGCACAATCGATTTTCTGGTATGACAAA-----GCACACAACACTAC-TCGCAATATTCCA-----
----TGCCAG---T-ACTAAGTGC--T-G---CAGAATTCCTGACAATGATGGCCCGAAAATGAAGGATACCGACTCCGA
GGAAGAGATCCGCGAGGCCTTCAAGGTGTTTGATCGTGACAACAATGNGTGAGTTTG-A--CTCG-AC--CCA-----A
ACTTTC-TATCAATTGTCGCGAC-AACACGCTGACT-----T-TTCCAGGCAAATCATCTCTGCTGAGCACGGTCTCGA
TGGCTCTGGTGTGTAA-----GTA-TT--CACGACCTCG-AATCCAGCTACAATCCGACA--A-TATCTGA-TCGTCAAC
AGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTCG-----TA
C-----CAAT-CCACCATAT--GACGA-A---ACAAA-----CTTAC-A--ATGG-----TATTAGGCCTCCGGCAACAAATACG
TCCCCCGTGTCTCCTCGTCTGACTTGGAGCCCGGNCCTCCCACCCTTGTGCT--CTATAC-ACCCGTTGCTTTGGCG

GGCCACC-GGGGCCACCTGGTCGCCGGGGAC-G-TCCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGT
GAACCCTGATGAAGATGG-GCTGTCTGAG-A-CTATG-AAAATTGTCAAACCTTTCAACAATGGATCTCTTGGTTCCG
GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAAC
GCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGT
GTGTTGGGTGCGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTC--GGTCCTCGAGCGTATG
GGGCTC-GTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_stollii_CBS_408.93

TG-GATTCTTG-TTGTG-----GCA----ATGCTA---GCGT-GGGTGGTT-TGCTGACGAG-CCG---TCT-----TGATG-
AGTAGGACAAGGATGGAGATGGTGAGT-----CGC----CGCGAA--CAATGA----AGCTGCTTGA-ACGA
AT-----CA-----GCCAACA-GACCTTAA-----CTCTATC-GAACAGGACAAATCACAACCAAGGAACCTGGCA
CCGTCATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGACGCTGAT
AACAACGGCACAATCGATTCCCTGGTATGATAGA-----CCACCAGC-TCGCACTTTTTGA-----TGCA
G----C-ACTAACTGC--C-G---CAGAATTTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGGAAGAG
ATCCGTGAGGCTTTCAAGGTGTTTGACCGTGATAACAATGNGTGAGTTTG-A--CTCG-AC--CCA-----AACTTC-TA
TCAATTGTCGCGGC-GGCACGCTGACT-----T-GTCCAGGCAAATTATCTCTGCTGAGCACGGTCTCGATGGCTCT
GGTGTGTAA-----GTA-TT--TCACAA-TTCG-AATACACCCACAGTCCGAGG--T-TATCTGA-TCATCGACAGCTACAA
TGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTT-----GAAA----GTTTC
-TCGACTCCT---GCAG-A---ACAAA-----CACTA-A--TTCA----GC-TAGGCCTCCGGCAACAAATACGTCCCCCG
TGCTGTCTCGTCACTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTATAC-ACCTGTTGCTTTGGCGGGCCAC
C-GGGGCCACCTGGTCGCCGGGGGAC-G-TTCGTCCCCGGGCCCGCGCCCGCCGAAG-CGCTCTGTGAACCCT
GATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAACCTTTCAACAATGGATCTCTTGGTTCCGGCATCGA
TGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATT
GCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGG
GTGCGGTCCCCC-GGGGGCCTGCCGAAAGGCAGCGGCGACGTCCGTCT-GGTCTCGAGCGTATGGGGCTT
TGCTCACTCG-CTCGGGAAGGACTGGCGGGGGTTGGTCA

>Talaromyces_thailandensis_CBS_133147

TG-GGTTTCCGG-TTGTG-----GCA----ATGTTG---TGGCTGGGTGGTT-AGCTGACTAG-CCG---TTT-----TGATG
-AATAGGACAAGGATGGAGATGGTGAGT-----GAGCCGC-----AATGAT--CACCAACG-ATGCAATCTTTG-
GACAAGA-----ATATC-AGC-----ACGAACAGTATCCTGA-----CTATATCTGAATAGGTCAAATCACAACCAAGGA
ACTGGGACCGTATGCGTTCCCTCGGCCAGAACCCCTCCGAATCCGAGCTGCAGGACATGATCAACGAAGTC
GACGCTGACAACAACGGCACAATCGATTTCCCTGGTATGAAACA-----ATTGCTTACGGGC-G-----TTACGA----
-----TGGCAG----AACTAACTGC--CTA---CAGAATCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCC
GAGGAAGAGATCCGTGAGGCTTTCAAGGTGTTTGATCGCGACAACAATGNGTGAGTGTGACTCTCG-AC--CCA--
----AACTTC-GGTCAATTCTCGCGAC-AACACGCTGACT-----CTTCCAGGCAAATCATCTCCGCTGAGCACGGTC
TCGACGGCTCTGGTGTGTAA-----GTG-TT-GATACGA-ATCGAAATC---CACAATTCGACA--A-TATCTGA-TAATC
AACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGAGTTA-----
-GAC-----AACACTCGACTCGAACAGAA--CACAGA-----CTCATCA--ATTG-----CA-TAGGCTTCCGGCAACAA
GTATGTCCCTCGTGTCTGCTCGTCACTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTATAC-ACCTGTTGCTTT
GGCGGGCCACC-GGGGCCACCCGGTCGCCGGGGGAC-G-CTCGTCCCCGGGCCCGCGCCCGCCGAAG-CGC
TCTAAGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAACCTTTCAACAATGGATCTCTTGG
TTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCCGTGAATCATCGAATCTT
TGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGG
CTTGTGTGTTGGGTGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTCT-GGTCTCGAG
CGTATGGGGCTTTGCTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_verruculosus_CBS_388.48

TG-AATTTCTGG-TTATC-----GCA----ATGTTG---TGGT-GGGTAGTT-AGCTGACTAG-CCG---TTT-----TGTTG-A
GTAGGACAAGGATGGAGATGGTGAAGT-----GACCGC----CACCAA--CACCGACG-ATCTAGTCTCGA-AC
AAAGG-----CTATT-TGT-----ACGATCA-GATATTGA-----CGATATCTGAATAGGTCAAATCACAACCAAGGAACT
GGGCACTGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAGGTTGACG
CTGACAACAACGGCACAATCGATTTCCCTGGTATGACATAACCTAT-----CAACCGCAAACATATATGACAGTTGGA--
-----TGGCAG----A-ACTAACTGC--C-A---CAGAATTCTTGACAATGATGGCTCGCAAAATGAAGGATACCGACTCC
GAGGAAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTTTG-ACTCTGG-AA-CCC---
---AACTTTC-GATCAATTGTTGCGAC-AGCACACTGACT-----C-TTTCAGGCAAATCATCTCTGCTGAGCACGGTCT
CGACGGCTCCGGTGTGTAA-----GTA-TA--ACACGA-TTCG-AATCCAGCTGCAGTCCGACG--A-TATCTGA-TGAT
CAACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTCA-----
---GAC-----CAAT-CCACTAGAT--AAATCG-A---ACAAA-----ACTCATCC--CTCG-----ATAGGCTTCCGGCAACAA
ATATGTCCCCCGTGTCTCCTCGTGCAGTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTATAC-ACCTGTTGCTTT
GGCGGGCCACC-GGGGCCACCTGGTCGCCGGGGGAC-G--TCGTCTCCGGGCCCGCGCCCGCCGAAG-CGCT
CTGTGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAAACTTTCAACAATGGATCTCTTGGT
TCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTT
GAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGC
TTGTGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGGCAGCGTCCGTCT-GGTCTCGAGC
GTATGGGGCTCTGTCACTCG-CTCGGGACGGACCTGCGGGGGTTGGTCA

>Talaromyces_viridis_CBS_114.72

TG-TATTTCTTG-TTGTG-----GCA----ATGTTG---TGGT-GGGTGGTT-AGCTGACTAG-TCG---TTT-----TGATG-A
GTAGGACAAGGATGGAGATGGTGAAGT-----CAACCGC----CACG-----CAACG-ATACAATCTTTG-AACA
AAATCTACTATTGTA-ATT-----ACGAACAAAATATTGA-----CCATATCTGAAAAGGTCAAATCACAACCAAGGAAC
TGGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCCGAATCCGAATTGCAGGACATGATCAACGAAGTCGAC
GCTGACAACAACGGCACAATCGATTTCCCTGGTATGACAGA-----CACACTACAAC-GCACAATCGTCTA-----
----TGGCAG----AACTAACTGC--CGA---TAGAATTCTTGWCAATGATGGCCCGCAAAATGAAGGATACCGACTCCG
AGGAAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTTG-ACTCTGAGAC--CGA----
--AACTCTCAGTCAAATTGTT-----TGACT-----CT-TTCCAGGCAAATCATCTCTGCTGAGCACGGCCTCGATGG
CTCCGGTGTGTAA-----GTA-TTTGACTTGG-TTCG-AATCCAGCTACAATCCGACA--A-TCTCTGA-TCATCAACAG
TTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTTA-----GAAAA
CAAGACAT-TCGACTCA----ACCGGA---CAAAG-----ACTCATCA--GTTG----GTTTAGGCTTCCGGCAACAAATA
TGTTCCCTCGTGTCTGTTCTCGTGCAGTTGGAGCCCGGNTCTCCCACCCTTGTCT-CTCTAT-ACCTGTTGCTTCGGC
GGGCCACC-GGGACA--CTGGTCGCCGGGGGAC-G-TCCGTCCCCGGGCCCGCGCCCGCCGAAGCCCCCTGT
GAACCCTGATGAATATGGAGCTGTCTGAGTATCAATG-AAAATCGTCAAAACTTTCAACAATGGATCTCTTGGTTCC
GGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAA
CGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTTG
TGTGTTGGGTGCGGTCCCCC-GGGGACCCGCCGAAAGGCAGCGGGCAGCGCCGTC--GGTCTCGAGCGC
ATGGGGCTCTGTCAACCG-CTCGGGAAGGACCCGCGGGGGTTGGTCA

>Talaromyces_viridulus_CBS_252.87

TG-GATTTCTGG-TTGTG-----GCA----ATGTTG---TGT-GGGTAGTT-AGCTGACGAG-CCG---TTT-----TGATG-A
GTAGGACAAGGATGGAGATGGTGAAGT-----GACCAC----CACAAA--CACCGCG-ATATGGTCTTGA-AC
CGAGG-----TTATT-ACT-----ACGAACA-TATATTGA-----CGGTATTTGAACAGGTCAAATCACAACCAAGGAACT
GGGCACCGTCATGCGTTCCCTCGGCCAGAACCCTCTGAATCCGAATTGCAGGACATGATCAACGAGGTGCGACG
CTGACAACAACGGCACAATCGATTTCCCTGGTATGACCA-----ACACGTCT-ACGCTGAACACGA-----

-TGGCGG----T-ACTAACTGC--C-A---CAGAATCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCGAGG
AAGAGATCCGCGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTTG--GTCTCG-AC--CCA-----AAC
TTTC-TATCAATTGTCGCAAC-AACACGCTGACT-----C-TTTCAGGCAAATCATCTCTGCTGAGCACGGTCTCGACG
GCTCTGGTGTGTAA-----GTA-TC--GCACGA-TTCG-AATCCAGCTACAACCCGACA--A-TATCTGA-CAATCAACAG
CTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGT---CA-----GAC-----C
ACT-CCACCAGAT--AAATCG-A---ACAAA-----ACTCAT-A--ATTG----GTATAGGCCTCCGGCAACAAATATGTCCC
TCGTGCTATCCTCGTGCAGTTGGAGCCCGGNCCTCCCACCCTTGCT-CTATAC-ACCTGTTGCTTTGGCGGGCCC
ACC-GGGGCCACCTGGTGC CGGGGGGAC-G-TTCGTCCCCGGGCCCGCGCCCGCGAAG-CGCCCTGTGAACC
CTGATGAAGATGG-GCTGTCTGAGTA-CGATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTCCGGCAT
CGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCAC
ATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTTGTGTGT
GGGTGTGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTGCG-GGTCCTCGAGCGCATGGGG
CTTTGTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_qii_AS3.15414

TG-GGTTTCCGG-TTGTG-----GCA----ATGTTG--TGGC-GGGTGGTT-AGCTGACTCG-CCG---TTT-----TGATG-
AGTAGGACAAGGATGGAGATGGTGAGT-----GAGCCGC----AATGAT--CACCAACG-ATGCAGTCTTTG-
GACGAGT-----AAATC-AGC-----ACGAACAGTATCCTGA-----CTATATCTGAATAGGTCAAATCACAACCAAGGA
ACTGGGCACCGTATGCGTTCCTCGGCCAGAACCCCTCCGAATCCGAACTGCAGGACATGATCAACGAAGTGC
ACGCTGACAACAACGGCACAATCGATTTCCCTGGTATGACACA-----ATCATCTTACGGT-CGCTA----CGA-----
-----TGGCAG---AGACTAACTGC--CTA---CAGAATCTGACAATGATGGCCCGCAAATGAAGGATACCGACTCCG
AGGAAGAGATCCGTGAGGCTTTCAAGGTGTTTGACCGCGACAACAATGNGTGAGTGTGACTCTCG-AC--CCA---
--AACTTTC-AGTCAATTCTCGCGAC-AACACGCTGACT-----CT-TTCCAGGCAAATCATCTCCGCTGAGCACGGTCT
CGACGGCTCTGGTGTGTAA-----GTG-TT-GATACGA-ATCGAAATCC--TACAATTCGACA--C-TATCTGA-TAATCA
ACAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTTTACTTCAACGAGGTGCGTTA-----
GAA-----TCACTCGACTCAAACGAAA--CACAGA-----CTCATCA--ATTG----CA-TAGGCTCCGGCAACAAGT
ATGTCCCTCGTGCTGTCTCGTGCATTTGGAGCCCGGNCCTCCCACCCTTGCT-CTATAT-ACCTGTTGCTTTGG
CGGGCCCACC-GGGGCCACCCGGTCCGCCGGGGGAC-G-CTCGTCCCCGGGCCCGCGCCCGCGAAG-CGCTCT
AAGAACCCTGATGAAGATGG-GCTGTCTGAGTA-ATTTG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTC
CGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGA
ACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCACGGCTT
GTGTGTTGGGTGTGGTCCCTCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTCT-GGTCCTCGAGCGTA
TGGGGCTCTGTCACTCG-CTCGGGAAGGACCTGCGGGGGTTGGTCA

>Talaromyces_fusisporus_AS3.15415

TG-GATTCTGG-TTGTGCGTGTGTGTGCA---ATGCTA---TAGC-GGGCGGT-AGCTGACTAG-CCG---TTT-----T
GATG-AATAGGACAAGGATGGAGATGGTGAGT-----TTCTTACGAACACGAA--CGACAACG-ATACGATT
TTTG-GAGAATA-----TTATG-ACT-----ACGAACAACATATTGA-----TAAAGTC-CAATAGGTCAGATCACAACCAA
GGAACCTGGGCACCGTATGCGTTCCTCGGCCAGAACCCCTCCGAATCTGAATTGCAGGACATGATCAACGAAG
TCGACGCTGACAACAACGGCACAATCGATTTCCCTGGTATGACAGT-----ACACAAAATTGCAATTTTTGGA
-----GGGCAG---T-ACTAACTGC--C-G---CAGAATCTTGACAATGATGGCCCGCAAATGAAGGATACCGACTC
CGAGGAAGAAATCCGTGAGGCTTTCAAGGTGTTTGACCGTGACAACAATGNGTGAGTTGG-A--CACG-AC--CCA---
---AACTTTC-TATCAATTGTCGCGAC-AGCACGCTGACT-----TGTCAGGCAAATCATCTCTGCTGAGCACGGTCTC
GATGGCTCTGGTGTGTAA-----GTA-TT--ATACGA-TTCG-AATCCAGCTACAATCCGACA--G-TATCTGA-TCATCAA
CAGCTACAATGGCTCCTCCGACCTCCAGTTGGAGCGTATGAACGTCTACTTCAACGAGGTGCGTTA-----G
GAT-----TTCC-TCGGCTCAT---GCAG-A---ACAAA-----CACTCAT---ATGA-----ATAGGCCTCCGGCAACAAATAC

GTCCCCGTGCTGTCTCGTCTGACTTGGAGCCCGGNCCTCCCACCCTTGTCT-CTATAC-ACCTGTTGCTTTGGC
GGGCCACCGGGGCTCACCTGGTCGCCGGGGAC-G-TCTGTCCCCGGGCCCGCGCCCGCCAAG-CGCTCTG
AGAACCCTGATGAAGATGG-GCTGTCTGAGTA-CTATG-AAAATTGTCAAACTTTCAACAATGGATCTCTTGGTTCC
GGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATCCCGTGAATCATCGAATCTTTGAA
CGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTTG
TGTGTTGGGTGCGGTCCCCC-GGGGACCTGCCGAAAGGCAGCGGCGACGTCCGTTTGGGTCTCGAGCGTA
TGGGGCTTTGTCACTCG-CTCGGGACGGACCCGCGGGGGTTGGTCA

>Talaromyces_helicus_CBS_335.48

TG-ACGGTTTGA-----GCA----AGAATT-----GTGTGGC--AGCAATCTAA--TA---TTTTGATCTTGATGATG-TAC
AGGACAAAGATGGCGATGGTGTGATTTGTGCGAGAGCATTACTCCGAATTGCAGATAAGCAAT--CAACGAAGAAAA
AAGGGTTCG-ACATGGACACAAACCTGTG-----GAATACTGTACTAAAAGCGTGATCGACGTT-GGCCAGGTC
AAATCACAACCAAAGAAGTACCGTACCGTTCATGCGCTCTCTCGGCCAGAACCCTTCCGAATCCGAATTGCAGGACA
TGATCAACGAAGTGCAGCGTGATAACAACGGCACAATTGACTTTCCTGGTATGATCAA-----AATCCGTCCTCA
C-TCCCCTGTTTTGCCAGCTCCCCCTCGCAGTG--TGATTAATAGAAAGGGTATTAGAATTCTTGACCATGATGG
CTCGCAAAATGAAGGATACCGACTCCGAAGAAGAAATCCGCGAGGCATTCAAGGTGTTTGACCGCGACAACAAT
GNGTCCATCAT-ATTCTTG-TT-----CCCTC-TGCTAATCGTCATAAC-----CAGGCAAATCATCTCT
GCTGAGCACGGCCTCGATGGCTCTGGTGTGTAAGTTGACCGTGTATT--TGTCGACGTGAAATCTATCATCGAT
CGCTCA--G-ATTCTGACCAACCAGCTACAATGGCTCCTCCGACCTTCAATTGGAGCGCATGAACGTCTACTTC
AACGAGGTACGCCAATCCATCTAAGGCCTACACGCATTCAAT-CCAATAACGCGAGAAAAA---AAAAA-----
-----TCTTAGGCCAACGGCAACAAATATGTTCCCTCGTGTCTCGTCTCGATCTCGAGCCCCGGNCCTCCCAC
CCGTGCCGTTATAAT-ACCTGTTGCTTTGGCGGGCCAC--GGGG-CACCTGGTCGCTGGGGGAC-G--CCGTCCCC
GGGCCCGCGCCCGCCAAG-CACCCCCTGAACCTCTGAAGAAGATAGGGCTGTCTGAG-A-CCTAG-AAAATTGTCA
AACTTTCAACAATGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGC
AGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGCATTCCGGGGGGCATGCCTGTCCGAG
CGTCATTTCTGCCCTCAAGCACGGCTTGTGTGTTGGGTGTGGTCCCCCGGGGACCTGCCCAAAGGCAGCG
GCGACGCCCGTCG-GGTCTCGAGCGCATGGGGCTT-GTCACTTG-CTCGGGAGGGACCTGCGGGGGTTGGTCA

Data S4. The sequence alignment of combined *CaM*, *BenA* and *ITS1-5.8S-ITS2*.