

A novel thermostable alkaline histamine oxidase from *Glutamicibacter* sp. N1A3101, induced by histamine and its analogue betahistine

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Table S1 alignment of HOD DNA sequences from different bacterial genres. The sequences used for primer design were highlighted in yellow.

Bacterial genus	HOD gene sequence
<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	GGGCAGCTGCCCGTGGTGGACGAGGAGTTGCCCTGGTCGAGGAGGTGCT
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	GGGCAGCTGCCCGTGGTGGACGAGGAGTTGCCCTGGTCGAGGAGGTGCT
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GGCGAGTTGCCCGTGTAGAGAGGAATTTGAGGTGTAGAGGCACTTCT
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	GGCGAGTTGCCCGTGTAGAGAGGAATTTGAGGTGTAGAGGCACTTCT
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	GGCGAGTTGCCCGTGTAGAGAGGAATTTGAGGTGTAGAGGCACTTCT
<i>Arthrobacter sp. EPRS71</i> Accession no: LNUV01000006.1	GGCGAGTTGCCCGTGTAGAGAGGAATTTGAGGTGTAGAGGCACTTCT
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GGCGAGTTGCCCGTGTAGAGAGGAATTTGAGGTGTAGAGGCACTTCT
<i>Brevibacterium linens</i> Accession no: CP014869.1	GGCGAGTTTCCCGTCATGGAAGAGGAGTTGGAAGTCGTCGAAGAGGTCCT
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	GGCGAGTTTCCCGTCATGGAAGAGGAGTTGGAAGTCGTCGAAGAGGTCCT
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	GGTGAAGTCCCGTGGTTCGAGGAGGAATTCGGCGCCGTCGAAGACCTCCT
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	GGTGAAGTCCCGTGGTTCGAGGAGGAATTCGGCGCCGTCGAAGACCTCCT
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	GGTGAAGTCCCGTGGTTCGAGGAGGAATTCGGCGCCGTCGAAGACCTCCT
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GGTGAAGTCCCGTGGTTCGAGGAGGAATTCGGCGCCGTCGAAGACCTCCT
<i>Kocuria indica</i> Accession no: CP035504.1	GGGGAGCTGCCCGTGGTTCGAGGAGGAGTTGAGATGGTGGAGCAGATCCT
<i>Kocuria flava</i> Accession no: CP013254.1	GGGGAGCTGCCCGTGGTTCGAGGAGGAGTTGAGATGGTGGAGCAGATCCT
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	GGTCAGCCGAGTACCTGTTCGAGGAGTACGAGCGCCGAGGCCATCGC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GGTCAGCCGAGTACCTGTTCGAGGAGTACGAGCGCCGAGGCCATCGC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GGTCAGCCGAGTACCTGTTCGAGGAGTACGAGCGCCGAGGCCATCGC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GGTCAGCCGAGTACCTGTTCGAGGAGTACGAGCGCCGAGGCCATCGC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GGTCAGCCGAGTACCTGTTCGAGGAGTACGAGCGCCGAGGCCATCGC
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GGCCAACCTCCCGTCTCGACGAGGAGTTGCCCTGGTGGAGGAGGTCCT
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GGCGAATTGCCCGTGGTGGAGAGGAATTTGAGGTGTGGAGACGCTCCT
<i>Pseudarthrobacter sp.</i> Accession no: CP041198.1	GGAGAGCTGCCCGTCTCGAGGAGGAGTTGAGGTAGTGAATCCCTCCT
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GGAGAGCTGCCCGTCTCGAGGAGGAGTTGAGGTAGTGAATCCCTCCT
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GGTCAGATGCCCGTCTGGACGAGGAGTTGGAATCGTCGAGCAGGTACT
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GGTCAGATGCCCGTCTGGACGAGGAGTTGGAATCGTCGAGCAGGTACT
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GGTCAGATGCCCGTCTGGACGAGGAGTTGGAATCGTCGAGCAGGTACT
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GGTCAGATGCCCGTCTGGACGAGGAGTTGGAATCGTCGAGCAGGTACT
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	GGTCAGATGCCCGTCTGGACGAGGAGTTGGAATCGTCGAGCAGGTACT
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GGCCAGCCCGGATCTGTTCGAGGAGTACGACCGAGCCGAGCTGGT
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GGCGAGCTGCCCGTGGTTCGAGGAGGAGTTGAGGCGGTCGAGGAGATCCT
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GGGCAACTCCCATCTGGAGGAGGAGTTGATCTGATCGAGGAGATCGT
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GGGCAACTCCCATCTGGAGGAGGAGTTGATCTGATCGAGGAGATCGT
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GGGCAACTCCCATCTGGAGGAGGAGTTGATCTGATCGAGGAGATCGT
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GGGCAACTCCCATCTGGAGGAGGAGTTGATCTGATCGAGGAGATCGT
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	CGCCAAGGACGAGCGGTGGCTGGCGGCGCTGGCCGCCCGACCTGGACG
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	CGCCAAGGACGAGCGGTGGCTGGCGGCGCTGGCCGCCCGACCTGGACG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	AGCAACTCACCCGAATGGCTAGAGGCTCTGGCCGCCCGAACCTGGCGG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	AGCAACTCACCCGAATGGCTAGAGGCTCTGGCCGCCCGAACCTGGCGG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	AGCAACTCACCCGAATGGCTAGAGGCTCTGGCCGCCCGAACCTGGCGG
<i>Arthrobacter sp. EPRS71</i> Accession no: LNUV01000006.1	AGCAACTCACCCGAATGGCTAGAGGCTCTGGCCGCCCGAACCTGGCGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	AGCAACTCACCCGAATGGCTAGAGGCTCTGGCCGCCCGAACCTGGCGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	CGCCACGGATCCGAGTGGCTGGCCAGCTGGAGAGCGCGGACTGTCCG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	CGCCACGGATCCGAGTGGCTGGCCAGCTGGAGAGCGCGGACTGTCCG
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	CACAACGGATGCCCGTGGCGGGCGCACTCGCAGCCCGCGCCTCGACG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	CACAACGGATGCCCGTGGCGGGCGCACTCGCAGCCCGCGCCTCGACG
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	CACAACGGATGCCCGTGGCGGGCGCACTCGCAGCCCGCGCCTCGACG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	CACAACGGATGCCCGTGGCGGGCGCACTCGCAGCCCGCGCCTCGACG
<i>Kocuria indica</i> Accession no: CP035504.1	CTCCACGGACGAGCGTGGCTGGCGGCGTGCAGAGCGCAACCTGCCCG

<i>Kocuria flava</i> Accession no: CP013254.1	CTCCACGGACGAGCGCTGGCTGGCCGCGTGCAGAAGCGCAACCTGCCCG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	CAAGGCCTCCCCGAATGGCGTGCCGCGATGGAGCGCCGCGGACTCGCCG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CAAGGCCTCCCCGAATGGCGTGCCGCGATGGAGCGCCGCGGACTCGCCG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CAAGGCCTCCCCGAATGGCGTGCCGCGATGGAGCGCCGCGGACTCGCCG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CAAGGCCTCCCCGAATGGCGTGCCGCGATGGAGCGCCGCGGACTCGCCG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CAAGGCCTCCCCGAATGGCGTGCCGCGATGGAGCGCCGCGGACTCGCCG
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GTCCACCGACGAGGACTGGCTGGCCGCCCTGCGCCGCCGCGACCTGGACC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	TGCAACCGACGAGCGGTGGCTCGCCGCACTCGCAGCCCGGGACCTGGACC
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	GGCCACCGACGAACGGTGGCTGAAGGCACTCGCGGACCCGGGACTCGACC
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GGCCACCGACGAACGGTGGCTGAAGGCACTCGCGGACCCGGGACTCGACC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GGCCGCCGACGAACGCTGGCTCGCCGCGCTCGCCGCCCGCGGACTCGACC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GGCCGCCGACGAACGCTGGCTCGCCGCGCTCGCCGCCCGCGGACTCGACC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GGCCGCCGACGAACGCTGGCTCGCCGCGCTCGCCGCCCGCGGACTCGACC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GGCCGCCGACGAACGCTGGCTCGCCGCGCTCGCCGCCCGCGGACTCGACC
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	GGCCGCCGACGAACGCTGGCTCGCCGCGCTCGCCGCCCGCGGACTCGACC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CAAGCCGACCCCGCTGGCAGGCGCGATGCGCCGACGTGGCGCTGAGG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GGGGCGGATGCCCGCTGGCTCGAGGCCCTCGCAGCAGCGCCCTCGACC
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GGCCGCCGACGAGGATGGCGGGCGCGCTCGCCGCCGCGCCCTCGACC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GGCCGCCGACGAGGATGGCGGGCGCGCTCGCCGCCGCGCCCTCGACC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GGCCGCCGACGAGGATGGCGGGCGCGCTCGCCGCCGCGCCCTCGACC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GGCCGCCGACGAGGATGGCGGGCGCGCTCGCCGCCGCGCCCTCGACC
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	TGGCGAAGGTGCGGGTTC-----GCGCCGCTGTCCGCGGGGTGTTTCGAC
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	TGGCGAAGGTGCGGGTTC-----GCGCCGCTGTCCGCGGGGTGTTTCGAC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	TGGAAAAGGTGCGGGTTC-----GCGCCGCTGTCCGAGGCGTCTTTGAA
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	TGGAAAAGGTGCGGGTTC-----GCGCCGCTGTCCGAGGCGTCTTTGAA
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	TGGAAAAGGTGCGGGTTC-----GCGCCGCTGTCCGAGGCGTCTTTGAA
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV01000006.1	TGGAAAAGGTGCGGGTTC-----GCGCCGCTGTCCGAGGCGTCTTTGAA
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	TGGAAAAGGTGCGGGTTC-----GCGCCGCTGTCCGAGGCGTCTTTGAA
<i>Brevibacterium linens</i> Accession no: CP014869.1	TCGAGGAGGTGCGGGTTC-----GCACCCTGTCCGCCGGTGTCTTCGAG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	TCGAGGAGGTGCGGGTTC-----GCACCCTGTCCGCCGGTGTCTTCGAG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	TGGCCACCGTGCAGGTC-----GCTCCCTCTCCGCGGGGTATTCGAA
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	TGGCCACCGTGCAGGTC-----GCTCCCTCTCCGCGGGGTATTCGAA
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	TGGCCACCGTGCAGGTC-----GCTCCCTCTCCGCGGGGTATTCGAA
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	TGGCCACCGTGCAGGTC-----GCTCCCTCTCCGCGGGGTATTCGAA
<i>Kocuria indica</i> Accession no: CP035504.1	TGGAGAAGGTGCGGGTTC-----GCGCCGCTGTCCGCGGGGTGTTTCGAG
<i>Kocuria flava</i> Accession no: CP013254.1	TGGAGAAGGTGCGGGTTC-----GCGCCGCTGTCCGCGGGGTGTTTCGAG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	AGCACATCGATCTCGGTTCTGCGGGCCACTCGCCCCGGATACACCGGC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	AGCACATCGATCTCGGTTCTGCGGGCCACTCGCCCCGGATACACCGGC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	AGCACATCGATCTCGGTTCTGCGGGCCACTCGCCCCGGATACACCGGC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	AGCACATCGATCTCGGTTCTGCGGGCCACTCGCCCCGGATACACCGGC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	AGCACATCGATCTCGGTTCTGCGGGCCACTCGCCCCGGATACACCGGC
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	CCTCCACCGTCCGGGTTC-----GCCCGCTGTCCGCGGGGTCTACGAC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	TGAAAAATGTTCCGTT-----GCTCCGTTGTCCGCGGGAGTTTTGAG
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	TCAAGAAAGTCCGCGTC-----GCGCCGCTCTCCGCGGGGTGTTTCGAA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	TCAAGAAAGTCCGCGTC-----GCGCCGCTCTCCGCGGGGTGTTTCGAA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	TCGCGACGTCGCGGTTC-----GCTCCCTCTCCGCGGGTGTCTTCGAC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	TCGCGACGTCGCGGTTC-----GCTCCCTCTCCGCGGGTGTCTTCGAC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	TCGCGACGTCGCGGTTC-----GCTCCCTCTCCGCGGGTGTCTTCGAC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	TCGCGACGTCGCGGTTC-----GCTCCCTCTCCGCGGGTGTCTTCGAC
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	TCGCGACGTCGCGGTTC-----GCTCCCTCTCCGCGGGTGTCTTCGAC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	ACTGGTTC---GCTGACCTTCATCGGCCCGTGTCCCCCGGTTTCTTCGA-
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	CGGCGACGGTCCGCGTC-----GCCCGCTCTCCGCGGGGTGTTTCGAG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GGGCGCTGGTGCAGGTC-----GCCCGCTCTCCGCGGGGTGTTTCGAG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GGGCGCTGGTGCAGGTC-----GCCCGCTCTCCGCGGGGTGTTTCGAG

<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GGGCGCTGGTGCGGGTC-----GCCCGCTCTCCGCGGGGGTGTACGCG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GGGCGCTGGTGCGGGTC-----GCCCGCTCTCCGCGGGGGTGTACGCG
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	-----TACCCGAGG--AGACCGGGCGGCGCATCTCCGCGGCCTGGCG
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	-----TACCCGAGG--AGACCGGGCGGCGCATCTCCGCGGCCTGGCG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	-----TACCTGAGG--AAAAGGCCGCGTATCTCCGTGGGCTGGCG
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	-----TACCTGAGG--AAAAGGCCGCGTATCTCCGTGGGCTGGCG
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	-----TACCTGAGG--AAAAGGCCGCGTATCTCCGTGGGCTGGCG
<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV01000006.1	-----TACCTGAGG--AAAAGGCCGCGTATCTCCGTGGGCTGGCG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	-----TACCTGAGG--AAAAGGCCGCGTATCTCCGTGGGCTGGCG
<i>Brevibacterium linens</i> Accession no: CP014869.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGCGGGCTGGCG
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGCGGGCTGGCG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGCGGGCTGGCG
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGCGGGCTGGCG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGCGGGCTGGCG
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGCGGGCTGGCG
<i>Kocuria indica</i> Accession no: CP035504.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGTGGGCTCGCG
<i>Kocuria flava</i> Accession no: CP013254.1	-----TACCCGAGG--AGAAGGGACGGCGGATCTGCGTGGGCTCGCG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	-----CGGCCGACG--AGGTGGGGCGACGCGTATCCGCTCGCTCAG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	-----CGGCCGACG--AGGTGGGGCGACGCGTATCCGCTCGCTCAG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	-----CGGCCGACG--AGGTGGGGCGACGCGTATCCGCTCGCTCAG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	-----CGGCCGACG--AGGTGGGGCGACGCGTATCCGCTCGCTCAG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	-----CGGCCGACG--AGGTGGGGCGACGCGTATCCGCTCGCTCAG
<i>Nocardioopsis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	GACGAGTACCCGAGG--AACCGGCCGCGCATCTGCGCGGACTCGCC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>PseudArthrobacter</i> sp. Accession no: CP041198.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	-----TACCCGAGG--AAAAGGGCGCGGATCTCCGCGGGCTGGCG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	-----CGAGCCGCTGCTGCGCAGCGG--GCGTGTGCGGGCGTTCGACG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	-----TACCCGAGG--AAAAGGGCGCAGGATCTGCGCGGCCTGGCC
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GACGAGTACCCGAGG--AGGCCGACGCGGTGTCTGCGCGGCCTCGCC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GACGAGTACCCGAGG--AGGCCGACGCGGTGTCTGCGCGGCCTCGCC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GACGAGTACCCGAGG--AGGCCGACGCGGTGTCTGCGCGGCCTCGCC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GACGAGTACCCGAGG--AGGCCGACGCGGTGTCTGCGCGGCCTCGCC
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	TTCTGTCAGGAACACCTGGGGACACGCGTGGGCGCACCCGGTTCGACGG
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	TTCTGTCAGGAACACCTGGGGACACGCGTGGGCGCACCCGGTTCGACGG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	TTCTACCAAGACTTCCCGAGGACAGCGCATGGGCGCATCTGTGGATGG
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	TTCTACCAAGACTTCCCGAGGACAGCGCATGGGCGCATCTGTGGATGG
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	TTCTACCAAGACTTCCCGAGGACAGCGCATGGGCGCATCTGTGGATGG
<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV01000006.1	TTCTACCAAGACTTCCCGAGGACAGCGCATGGGCGCATCTGTGGATGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	TTCTACCAAGACTTCCCGAGGACAGCGCATGGGCGCATCTGTGGATGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	TTCCACCAGCAGCATGAGTTCGGACTCGGCGTGGGCGCACCCGATCGACGG
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	TTCCACCAGCAGCATGAGTTCGGACTCGGCGTGGGCGCACCCGATCGACGG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	TTCTGTCAGAACTTCCCGAGGACAGCGCATGGGCGCACCCGATCGACGG
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	TTCTGTCAGAACTTCCCGAGGACAGCGCATGGGCGCACCCGATCGACGG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	TTCTGTCAGAACTTCCCGAGGACAGCGCATGGGCGCACCCGATCGACGG
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	TTCTGTCAGAACTTCCCGAGGACAGCGCATGGGCGCACCCGATCGACGG
<i>Kocuria indica</i> Accession no: CP035504.1	TTCTGTCAGGAGCAGGAGGACTCGGCGTGGGCGCACCCGATCGACGG
<i>Kocuria flava</i> Accession no: CP013254.1	TTCTGTCAGGAGCAGGAGGACTCGGCGTGGGCGCACCCGATCGACGG

<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Nocardiopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	TTTGTGCAGGACTTCCCGGAGGACAGCGCTGGGCCATCCCGTCGATGG
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	TTCTCCGCTACGACGAGCTCGACTCGCCCTGGGCGCACCCGGTCGAGGG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	TTCCGCCAGGACCACCCGAAGGACCATGCCTGGGCCACCCGATCGACGG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	TTCCGCCAGGACCACCCGAAGGACCATGCCTGGGCCACCCGATCGACGG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	TTCCGCCAGGACCACCCGAAGGACCATGCCTGGGCCACCCGATCGACGG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	TTCCGCCAGGACCACCCGAAGGACCATGCCTGGGCCACCCGATCGACGG
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	TTCCGCCAGGACCACCCGAAGGACCATGCCTGGGCCACCCGATCGACGG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	TTCTGCGCAGCAGCTGGACGACAGCCCGTGGGCACACCCGGTCGAGGG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	TTCTGCGCAGCAGCAGCTGGACGACAGCCCGTGGGCACACCCGGTCGAGGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	TTCTGTCAGAAGAGCCCGGAGGACTACGCATGGGGATGTCCCGTCGACGG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	TTCTGTCAGAAGAGCCCGGAGGACTACGCATGGGGATGTCCCGTCGACGG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	TTCTGTCAGAAGAGCCCGGAGGACTACGCATGGGGATGTCCCGTCGACGG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	TTCTGTCAGAAGAGCCCGGAGGACTACGCATGGGGATGTCCCGTCGACGG
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	GCTCGTCGGGTTCTGTCGACGTCCTGGCCCGGAGGTCACCCGGTGATCG
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	GCTCGTCGGGTTCTGTCGACGTCCTGGCCCGGAGGTCACCCGGTGATCG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GCTGGTTGCCTATGTGGATGTCCACCAACAAGAGCGTCGATGCGGTTCTGG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	GCTGGTTGCCTATGTGGATGTCCACCAACAAGAGCGTCGATGCGGTTCTGG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	GCTGGTTGCCTATGTGGATGTCCACCAACAAGAGCGTCGATGCGGTTCTGG
<i>Arthrobacter sp. Eprs71</i> Accession no: LNUV01000006.1	GCTGGTTGCCTATGTGGATGTCCACCAACAAGAGCGTCGATGCGGTTCTGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GCTGGTTGCCTATGTGGATGTCCACCAACAAGAGCGTCGATGCGGTTCTGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	ACTCGTCGCTACGTTGACGTACGAACGAGGCCGTCGATCAGATTCTCG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	ACTCGTCGCTACGTTGACGTACGAACGAGGCCGTCGATCAGATTCTCG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	CCTCGTCGCTACGTCGACATCGTCGGAAGACCGTGGACCAGGTGCTCG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	CCTCGTCGCTACGTCGACATCGTCGGAAGACCGTGGACCAGGTGCTCG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	CCTCGTCGCTACGTCGACATCGTCGGAAGACCGTGGACCAGGTGCTCG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	CCTCGTCGCTACGTCGACATCGTCGGAAGACCGTGGACCAGGTGCTCG
<i>Kocuria indica</i> Accession no: CP035504.1	GCTCGTGGCTACGTGGACGTGACCAACCAGGCCGTCGACCAGGTGCTGG
<i>Kocuria flava</i> Accession no: CP013254.1	GCTCGTGGCTACGTGGACGTGACCAACCAGGCCGTCGACCAGGTGCTGG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	ACTCATCGTGCACATCGACCTCACGGCGGACAGCGTGATCCGCGTCGAGG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	ACTCATCGTGCACATCGACCTCACGGCGGACAGCGTGATCCGCGTCGAGG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	ACTCATCGTGCACATCGACCTCACGGCGGACAGCGTGATCCGCGTCGAGG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	ACTCATCGTGCACATCGACCTCACGGCGGACAGCGTGATCCGCGTCGAGG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	ACTCATCGTGCACATCGACCTCACGGCGGACAGCGTGATCCGCGTCGAGG
<i>Nocardiopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	ACTCGTGGCTACGTGACGTCGTCGGCAGGACCGTCGACCAGGTGATCG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GCTGGTGGCTACGTGGACGTGGTCAACAAGGAAGTCACCCAGGTGATCG
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	CCTGGTGGCTACGTGGACGTGGTTCGCCAGGAGGTACCCAGGTGATCG
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	CCTGGTGGCTACGTGGACGTGGTTCGCCAGGAGGTACCCAGGTGATCG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GCTCGTCGGATTCTGTCGACGTCATGAACCGGACCGTCACCGACGTTCTCG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GCTCGTCGGATTCTGTCGACGTCATGAACCGGACCGTCACCGACGTTCTCG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GCTCGTCGGATTCTGTCGACGTCATGAACCGGACCGTCACCGACGTTCTCG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GCTCGTCGGATTCTGTCGACGTCATGAACCGGACCGTCACCGACGTTCTCG
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	GCTCGTCGGATTCTGTCGACGTCATGAACCGGACCGTCACCGACGTTCTCG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	TCTGCTCTGCGAGGTGGACCTGATCGCCAACGAGGTGCTGGCGGTGACCG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GCTCGTGGCTACGTGACGTCGTCGAACCGACCGTGGACCAGGTGCTCG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	TCTCGTCTACGTGACGTCGTCGAACAGGACCGTCGACCAGGTGATCG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	TCTCGTCTACGTGACGTCGTCGAACAGGACCGTCGACCAGGTGATCG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	TCTCGTCTACGTGACGTCGTCGAACAGGACCGTCGACCAGGTGATCG

<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	TCTCGTCTACGTCGACGTGCTGAACAGGACCGTCGACCGGATCATCG * * * * * * * * *
<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	ACCTCGGCCCGGTGCCGATCCCGGCCGAACCGGGCAACTTCGACGACCCC
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	ACCTCGGCCCGGTGCCGATCCCGGCCGAACCGGGCAACTTCGACGACCCC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	ATTTTGGGTGTGGTCCCGGTCCCGCCGAGCATGGCAATTACACGGATCCT
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	ATTTTGGGTGTGGTCCCGGTCCCGCCGAGCATGGCAATTACACGGATCCT
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	ATTTTGGGTGTGGTCCCGGTCCCGCCGAGCATGGCAATTACACGGATCCT
<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV01000006.1	ATTTTGGGTGTGGTCCCGGTCCCGCCGAGCATGGCAATTACACGGATCCT
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	ATTTTGGGTGTGGTCCCGGTCCCGCCGAGCATGGCAATTACACGGATCCT
<i>Brevibacterium linens</i> Accession no: CP014869.1	ACCTCGAAAACGTTCCCGGTGCCGTCCGAGCACGGGAACACACGGATCCG
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	ACCTCGAAAACGTTCCCGGTGCCGTCCGAGCACGGGAACACACGGATCCG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	ACTTCGGCGTCTCCATCCCGCCGAACACGGCAACTTCACCGATCCC
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	ACTTCGGCGTCTCCATCCCGCCGAACACGGCAACTTCACCGATCCC
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	ACTTCGGCGTCTCCATCCCGCCGAACACGGCAACTTCACCGATCCC
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	ACTTCGGCGTCTCCATCCCGCCGAACACGGCAACTTCACCGATCCC
<i>Kocuria indica</i> Accession no: CP035504.1	ACCTGGAGGTGGTCCCGGTCCCGCAGGAGCACGGCAACTACACGGATCCC
<i>Kocuria flava</i> Accession no: CP013254.1	ACCTGGAGGTGGTCCCGGTCCCGCAGGAGCACGGCAACTACACGGATCCC
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	ACATCGCGACGTCCCGGTACCCGCGGCCATGGCAACTACTATCCCGAG
<i>Microbacterium oxydans</i> Accession no: CP031422.1	ACATCGCGACGTCCCGGTACCCGCGGCCATGGCAACTACTATCCCGAG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYA01000039.1	ACATCGCGACGTCCCGGTACCCGCGGCCATGGCAACTACTATCCCGAG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	ACATCGCGACGTCCCGGTACCCGCGGCCATGGCAACTACTATCCCGAG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	ACATCGCGACGTCCCGGTACCCGCGGCCATGGCAACTACTATCCCGAG
<i>Nocardiosis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	ACTTCGGGCGCGTCCCGATCCCGACCGAGTCCCGCAACTACCCCGATCCC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	ATCTGGGCGTCATGCCAATCCCGGTGAGCACGGAAACTACACGGATCCT
<i>Pseudarthrobacter</i> sp. Accession no: CP041198.1	ACCTCGGTGCCATGCCATCCCGCCGAGCACGGCAACTACACAGACCCT
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	ACCTCGGTGCCATGCCATCCCGCCGAGCACGGCAACTACACAGACCCT
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	ACCTCGGCGCGTCCCGGTCCCGGAGGAATCGGGCAACTTCGACGACCTC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	ACCTCGGCGCGTCCCGGTCCCGGAGGAATCGGGCAACTTCGACGACCTC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	ACCTCGGCGCGTCCCGGTCCCGGAGGAATCGGGCAACTTCGACGACCTC
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	ACCTCGGCGCGTCCCGGTCCCGGAGGAATCGGGCAACTTCGACGACCTC
<i>Rhodococcus</i> sp. SC4 SC4 Accession no: LSBM01000283.1	ACCTCGGCGCGTCCCGGTCCCGGAGGAATCGGGCAACTTCGACGACCTC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	ACGAGGCGACGTCCCGACCCGTTGGAGCACGGCAACTACACGGCGA-
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	ACTTCGGCCCGGTCCCGGTGCCCGGAGCACGGCAACTTCACCGATCCG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	ACCTCGACCCGGTGCCGCTGCCCGACGTGTCCGTCGACTTCGGCGACCCG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	ACCTCGACCCGGTGCCGCTGCCCGACGTGTCCGTCGACTTCGGCGACCCG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	ACCTCGACCCGGTGCCGCTGCCCGACGTGTCCGTCGACTTCGGCGACCCG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	ACCTCGACCCGGTGCCGCTGCCCGACGTGTCCGTCGACTTCGGCGACCCG * * * * * * * * *
<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	GCCGTCACCGGTCCACTTCGGACCTCCAGAAGCCACTGGAGATCAGCA
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	GCCGTCACCGGTCCACTTCGGACCTCCAGAAGCCACTGGAGATCAGCA
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GAATGACGGGCCCTACGCGGACAACCCAGAAGCCATCAACATCACCCA
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	GAATGACGGGCCCTACGCGGACAACCCAGAAGCCATCAACATCACCCA
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	GAATGACGGGCCCTACGCGGACAACCCAGAAGCCATCAACATCACCCA
<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV01000006.1	GAATGACGGGCCCTACGCGGACAACCCAGAAGCCATCAACATCACCCA
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GAATGACGGGCCCTACGCGGACAACCCAGAAGCCATCAACATCACCCA
<i>Brevibacterium linens</i> Accession no: CP014869.1	GAGCTGACCGGACCCGTGCGAACCACACAGAAGCCGATCTCGATCAGCA
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	GAGCTGACCGGACCCGTGCGAACCACACAGAAGCCGATCTCGATCAGCA
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	GCCCTCACCGGCCCGTGCAGAAACGCTCAAGCCGATCAGTATCACCCA
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	GCCCTCACCGGCCCGTGCAGAAACGCTCAAGCCGATCAGTATCACCCA
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	GCCCTCACCGGCCCGTGCAGAAACGCTCAAGCCGATCAGTATCACCCA
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	GCCCTCACCGGCCCGTGCAGAAACGCTCAAGCCGATCAGTATCACCCA
<i>Kocuria indica</i> Accession no: CP035504.1	GAGCTCACCGGACCCACGCGACCCACCCAGAAGCCGATCAGATCACCCA
<i>Kocuria flava</i> Accession no: CP013254.1	GAGCTCACCGGACCCACGCGACCCACCCAGAAGCCGATCAGATCACCCA
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	GTGACGGGCG--GAGGCGCGCACGCCCTCAAGCCGATCAGATCGTCCA

<i>Microbacterium oxydans</i> Accession no:CP031422.1	GTGCAGGGC---GAGGCGCGCACGACCCTCAAGCCGATCGAGATCGTCCA
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GTGCAGGGC---GAGGCGCGCACGACCCTCAAGCCGATCGAGATCGTCCA
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GTGCAGGGC---GAGGCGCGCACGACCCTCAAGCCGATCGAGATCGTCCA
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GTGCAGGGC---GAGGCGCGCACGACCCTCAAGCCGATCGAGATCGTCCA
<i>Nocardiopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GAGGTGAGCGGGCCCGCGCACACCAGAGGCCATCGAGATCACTCA
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GAACGTACGGGCCCCCTCCGGGAAACGCAGAAGCCCATCAGCATCACGCA
<i>Pseudarthrobacter sp.</i> Accession no: CP041198.1	GAACGTACGGGACCCATCCGCGAAACCCAGAAGCCCATCAGCATACCCCA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GAACGTACGGGACCCATCCGCGAAACCCAGAAGCCCATCAGCATACCCCA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GCCGTCACGGCCCCCTGCGCACACCAGAGGCCATCGAGATCACCCA
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GCCGTCACGGCCCCCTGCGCACACCAGAGGCCATCGAGATCACCCA
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GCCGTCACGGCCCCCTGCGCACACCAGAGGCCATCGAGATCACCCA
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GCCGTCACGGCCCCCTGCGCACACCAGAGGCCATCGAGATCACCCA
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	GCCGTCACGGCCCCCTGCGCACACCAGAGGCCATCGAGATCACCCA
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	-----G---CCGGCCCGCACCGCTCAAGCCGATCCTCATCACCCA
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GAGGTGACGGGCGGTCGCGCACACCAGAGCCGATCGAGATCACCCA
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GCGGTCACGG-CCGC--CGCACCAGCCAGAAGCCCATCGAGATCACCCA
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GCGGTCACGG-CCGC--CGCACCAGCCAGAAGCCCATCGAGATCACCCA
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GCGGTCACGG-CCGC--CGCACCAGCCAGAAGCCCATCGAGATCACCCA
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GCGGTCACGG-CCGC--CGCACCAGCCAGAAGCCCATCGAGATCACCCA
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	ACCGGACGGTCCCAGCTTACCCTC---GACGGGCACCTGCTGCGGTGGG
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	ACCGGACGGTCCCAGCTTACCCTC---GACGGGCACCTGCTGCGGTGGG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	ACCCGAAGGTCTTAGCTTCTCCGTGACCGCCGGCAATCACATTGAATGGG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	ACCCGAAGGTCTTAGCTTCTCCGTGACCGCCGGCAATCACATTGAATGGG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	ACCCGAAGGTCTTAGCTTCTCCGTGACCGCCGGCAATCACATTGAATGGG
<i>Arthrobacter sp. EPRS71</i> Accession no: LNUV01000006.1	ACCCGAAGGTCTTAGCTTCTCCGTGACCGCCGGCAATCACATTGAATGGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	ACCCGAAGGTCTTAGCTTCTCCGTGACCGCCGGCAATCACATTGAATGGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	GCCGGATGGCCGAGCTTACCCTGACCGGAGGGCAACCACATCGAATGGG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	GCCGGATGGCCGAGCTTACCCTGACCGGAGGGCAACCACATCGAATGGG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	GCCCGATGGCGTGAGCTTTACCCTGACCGGCGGCAACCACATCGAGTGGG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	GCCCGATGGCGTGAGCTTTACCCTGACCGGCGGCAACCACATCGAGTGGG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	GCCCGATGGCGTGAGCTTTACCCTGACCGGCGGCAACCACATCGAGTGGG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GCCCGATGGCGTGAGCTTTACCCTGACCGGCGGCAACCACATCGAGTGGG
<i>Kocuria indica</i> Accession no: CP035504.1	GCCCGAGGGGCCGTCTTACCCTGACCGGCGGCAACCAGTGGAGTGGG
<i>Kocuria flava</i> Accession no: CP013254.1	GCCCGAGGGGCCGTCTTACCCTGACCGGCGGCAACCAGTGGAGTGGG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	GCCCGAGGGGCCGAGCTTCTCCGTG---ACCGGATCGCTCGTTCGAGTGGG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GCCCGAGGGGCCGAGCTTCTCCGTG---ACCGGATCGCTCGTTCGAGTGGG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GCCCGAGGGGCCGAGCTTCTCCGTG---ACCGGATCGCTCGTTCGAGTGGG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GCCCGAGGGGCCGAGCTTCTCCGTG---ACCGGATCGCTCGTTCGAGTGGG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GCCCGAGGGGCCGAGCTTCTCCGTG---ACCGGATCGCTCGTTCGAGTGGG
<i>Nocardiopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GCCCGAGGGGCCGAGCTTACCCTC---GACGGCAACGTGCTGAGCTGGG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GCCGGAAGGCCCCAGCTTACCCTGACCGGCGGCAACCATGTGGAGTGGG
<i>Pseudarthrobacter sp.</i> Accession no: CP041198.1	GCCGGAAGGTCCCAGCTTCACTGTACCCGGCGGCAACCAGTGGAAATGGG
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GCCGGAAGGTCCCAGCTTCACTGTACCCGGCGGCAACCAGTGGAAATGGG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GCCCGAGGGACCCAGCTTCTGTCGTC---GACGGCAACCGCTCGACTGGG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GCCCGAGGGACCCAGCTTCTGTCGTC---GACGGCAACCGCTCGACTGGG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GCCCGAGGGACCCAGCTTCTGTCGTC---GACGGCAACCGCTCGACTGGG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GCCCGAGGGACCCAGCTTCTGTCGTC---GACGGCAACCGCTCGACTGGG
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	GCCCGAGGGACCCAGCTTCTGTCGTC---GACGGCAACCGCTCGACTGGG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GCCCGAGGGCGTCAGCTTACCCTC---GAGGGCCACGAGGTGAGCTGGG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GCCCGACGGCCCGAGCTTACCCTGACCGGCGGCAACCAGTGGAAATGGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GCCCGAGGGGCCGAGCTTACCCTC---GACGGCAACCTCTGGAGTGGG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GCCCGAGGGGCCGAGCTTACCCTC---GACGGCAACCTCTGGAGTGGG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GCCCGAGGGGCCGAGCTTACCCTC---GACGGCAACCTCTGGAGTGGG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GCCCGAGGGGCCGAGCTTACCCTC---GACGGCAACCTCTGGAGTGGG

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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	AGAACTGGTCGCTGCGGATCGGCTTCGACGCCCGAAGGCCTTGTCTCTG					
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	AGAACTGGTCGCTGCGGATCGGCTTCGACGCCCGAAGGCCTTGTCTCTG					
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	AGAACTGGAGCCTGGACATCGGCTTCGACGTCCGTGAAGGCCTTGTCTCTG					
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	AGAACTGGAGCCTGGACATCGGCTTCGACGTCCGTGAAGGCCTTGTCTCTG					
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	AGAACTGGAGCCTGGACATCGGCTTCGACGTCCGTGAAGGCCTTGTCTCTG					
<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV01000006.1	AGAACTGGAGCCTGGACATCGGCTTCGACGTCCGTGAAGGCCTTGTCTCTG					
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	AGAACTGGAGCCTGGACATCGGCTTCGACGTCCGTGAAGGCCTTGTCTCTG					
<i>Brevibacterium linens</i> Accession no: CP014869.1	AGAAGTGGTCGTTTCGATGTTCGGCTTCGATATGCGTGAGGGTCTCGTCTCTC					
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	AGAAGTGGTCGTTTCGATGTTCGGCTTCGATATGCGTGAGGGTCTCGTCTCTC					
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	AGAAATGGAGCCTCGACGTGGGTTTCGACGTGCGCGAGGGCGTCTGTCTCTG					
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	AGAAATGGAGCCTCGACGTGGGTTTCGACGTGCGCGAGGGCGTCTGTCTCTG					
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	AGAAATGGAGCCTCGACGTGGGTTTCGACGTGCGCGAGGGCGTCTGTCTCTG					
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	AGAAATGGAGCCTCGACGTGGGTTTCGACGTGCGCGAGGGCGTCTGTCTCTG					
<i>Kocuria indica</i> Accession no: CP035504.1	AGAAATGGAGCCTGGACGTGGGTTTCGACGTTCGACATGCGCGAGGGCTCGTCTCTG					
<i>Kocuria flava</i> Accession no: CP013254.1	AGAAGTGGAGCCTGGACGTGGGTTTCGACATGCGCGAGGGCTCGTCTCTG					
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	AGAACTGGTCGATGCGGGTTCGACTTCAACGCGCGAGGGCTCGTCTCTG					
<i>Microbacterium oxydans</i> Accession no:CP031422.1	AGAACTGGTCGATGCGGGTTCGACTTCAACGCGCGAGGGCTCGTCTCTG					
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	AGAACTGGTCGATGCGGGTTCGACTTCAACGCGCGAGGGCTCGTCTCTG					
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	AGAACTGGTCGATGCGGGTTCGACTTCAACGCGCGAGGGCTCGTCTCTG					
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	AGAACTGGTCGATGCGGGTTCGACTTCAACGCGCGAGGGCTCGTCTCTG					
<i>Nocardiosis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	AGAACTGGTCGCTGCGGATCGGCTTCGACGCCCGAGGGGCTGGTCTCTG					
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	AGAAGTGGAGCGTGGACGTGGGTTTCGATGTCCGCGAAGGTGTTGTCTCTT					
<i>Pseudarthrobacter</i> sp. Accession no: CP041198.1	AAAAGTGGAGCCTGGACGTGGGTTTCGATTCCTCGAAGGCCTGGTCTCTG					
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	AAAAGTGGAGCCTGGACGTGGGTTTCGATTCCTCGAAGGCCTGGTCTCTG					
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	AGAAGTGGTCGTTCCGCGTTCGTTTCGACGCCCGAGGGTCTCGTCTCTC					
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	AGAAGTGGTCGTTCCGCGTTCGTTTCGACGCCCGAGGGTCTCGTCTCTC					
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	AGAAGTGGTCGTTCCGCGTTCGTTTCGACGCCCGAGGGTCTCGTCTCTC					
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	AGAAGTGGTCGTTCCGCGTTCGTTTCGACGCCCGAGGGTCTCGTCTCTC					
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	AGAAGTGGTCGTTCCGCGTTCGTTTCGACGCCCGAGGGTCTCGTCTCTC					
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	AGGGTGGAAAGCTGCGGATCGGGTTCACGCCCGAGGGGCTGACCTCTG					
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	AGCGGTGGAGCCTCGACGTTCGCTTCGACGTGCGCGAGGGCCTCGTCTCTG					
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	AGAACTGGTCCCTGCGGATCGGCTTCGACGCCCGTAGGGCCTGGTCTCTC					
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	AGAACTGGTCCCTGCGGATCGGCTTCGACGCCCGTAGGGCCTGGTCTCTC					
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	AGAACTGGTCCCTGCGGATCGGCTTCGACGCCCGTAGGGCCTGGTCTCTC					
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	AGAACTGGTCCCTGCGGATCGGCTTCGACGCCCGTAGGGCCTGGTCTCTC					
	* ** * * * * * * * * * * * *					
<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	CACGAGATCTCGTTCCGCGACGGCGAC-----CGGGA					
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	CACGAGATCTCGTTCCGCGACGGCGAC-----CGGGA					
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	AACAATCTGGCCTTCAATGACC-----GCGGCCGCAA					
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	AACAATCTGGCCTTCAATGACC-----GCGGCCGCAA					
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	AACAATCTGGCCTTCAATGACC-----GCGGCCGCAA					
<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV01000006.1	AACAATCTGGCCTTCAATGACC-----GCGGCCGCAA					
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	AACAATCTGGCCTTCAATGACC-----GCGGCCGCAA					
<i>Brevibacterium linens</i> Accession no: CP014869.1	CACAACATCGCCTTCGACGATG-----GCGAGCGCCG					
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	CACAACATCGCCTTCGACGATG-----GCGAGCGCCG					
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	CACAACATCGGCTTTCGCGACG-----GCGCGAAGAC					
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	CACAACATCGGCTTTCGCGACG-----GCGCGAAGAC					
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	CACAACATCGGCTTTCGCGACG-----GCGCGAAGAC					
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	CACAACATCGGCTTTCGCGACG-----GCGCGAAGAC					
<i>Kocuria indica</i> Accession no: CP035504.1	CACAACATCGGCTTCGAGGACC-----AGGGCCAGAA					
<i>Kocuria flava</i> Accession no: CP013254.1	CACAACATCGGCTTCGAGGACC-----AGGGCCAGAA					
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	CACGACGTGACCTTCGACGGC-----					
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CACGACGTGACCTTCGACGGC-----					

<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CACGACGTGACCTTCGACGGC-----
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CACGACGTGACCTTCGACGGC-----
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CACGACGTGACCTTCGACGGC-----
<i>Nocardioopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	CACCAGATCGCCTTCGCCGACCGCGACC-----GGGGCGGGA
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	CATAACCTGGCGTTCCAGGACG-----GCGGCAAGAA
<i>Pseudarthrobacter sp.</i> Accession no: CP041198.1	CACAACATCGCCTTCAGGACA-----GTGACCGGAA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	CACAACATCGCCTTCAGGACA-----GTGACCGGAA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	CATCAGCTCGGATTCGCCGACGGTGAC-----CGGGT
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	CATCAGCTCGGATTCGCCGACGGTGAC-----CGGGT
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	CATCAGCTCGGATTCGCCGACGGTGAC-----CGGGT
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	CATCAGCTCGGATTCGCCGACGGTGAC-----CGGGT
<i>Rhodococcus sp. SC4 SC4</i> Accession no: LSBM01000283.1	CATCAGCTCGGATTCGCCGACGGTGAC-----CGGGT
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CACCGGATCTCGTTCGGCGGC-----
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	CACAACATCGCCTTCGACGACGCCGGCGGGCAACCCGGGCGACCGGAA
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CACCAGATCGCGTTCCACGACCGCGACC-----AGGGCGCGGA
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CACCAGATCGCGTTCCACGACCGCGACC-----AGGGCGCGGA
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CACCAGATCGCGTTCCACGACCGCGACC-----AGGGCGCGGA
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CACCAGATCGCGTTCCACGACCGCGACC-----AGGGCGCGGA
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	CC-----GGCCGATCGTGCACCGGGCCTCGATCTCGGAAATGG
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	CC-----GGCCGATCGTGCACCGGGCCTCGATCTCGGAAATGG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	AC-----GCCCCATCATTAACCGTGCATCCATTGCCGAGATGG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	AC-----GCCCCATCATTAACCGTGCATCCATTGCCGAGATGG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	AC-----GCCCCATCATTAACCGTGCATCCATTGCCGAGATGG
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV01000006.1	AC-----GCCCCATCATTAACCGTGCATCCATTGCCGAGATGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	AC-----GCCCCATCATTAACCGTGCATCCATTGCCGAGATGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	TC-----GCACGATCCTCGACCGGGCGGCCATCGCCGAGATGG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	TC-----GCACGATCCTCGACCGGGCGGCCATCGCCGAGATGG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	AC-----GCTCCATCATCCGTCGTGCGTGCATCGCGGAGATGG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	AC-----GCTCCATCATCCGTCGTGCGTGCATCGCGGAGATGG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	AC-----GCTCCATCATCCGTCGTGCGTGCATCGCGGAGATGG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	AC-----GCTCCATCATCCGTCGTGCGTGCATCGCGGAGATGG
<i>Kocuria indica</i> Accession no: CP035504.1	GC-----GCCGGATCCTGGACCGCGCCGCCATCGCGGAGATGA
<i>Kocuria flava</i> Accession no: CP013254.1	GC-----GCCGGATCCTGGACCGCGCCGCCATCGCGGAGATGA
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	-C-----GCCCCGTACTCAACCGCGCGAGCGTGCCCCGAGATGG
<i>Microbacterium oxydans</i> Accession no: CP031422.1	-C-----GCCCCGTACTCAACCGCGCGAGCGTGCCCCGAGATGG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	-C-----GCCCCGTACTCAACCGCGCGAGCGTGCCCCGAGATGG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	-C-----GCCCCGTACTCAACCGCGCGAGCGTGCCCCGAGATGG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	-C-----GCCCCGTACTCAACCGCGCGAGCGTGCCCCGAGATGG
<i>Nocardioopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GC-----GCTCGATCGTCCACCGCGCCTCCATCGCCGAGATGG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GC-----GTCCCATCATCAACCGTGCTCCATCGCCGAAATGG
<i>Pseudarthrobacter sp.</i> Accession no: CP041198.1	GC-----GGCCCATCATCAACCGTGCTCCATCGCCGAGATGG
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GC-----GGCCCATCATCAACCGTGCTCCATCGCCGAGATGG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	CC-----GCCCCATCATCCACCGCGCGTCCATCGCCGAGATGG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	CC-----GCCCCATCATCCACCGCGCGTCCATCGCCGAGATGG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	CC-----GCCCCATCATCCACCGCGCGTCCATCGCCGAGATGG
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	CC-----GCCCCATCATCCACCGCGCGTCCATCGCCGAGATGG
<i>Rhodococcus sp. SC4 SC4</i> Accession no: LSBM01000283.1	CC-----GCCCCATCATCCACCGCGCGTCCATCGCCGAGATGG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	-G-----ACCCGGTGCTGCACCGGGCGTGCATGGCGGAGATGG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GCCGACCCGCCGCCCGCATCCTCGACCGCGCCTCGATCGCCGAGATGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CC-----GTCCCGTCATCCACCGCGCGTGCATCGCCGAGATGG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CC-----GTCCCGTCATCCACCGCGCGTGCATCGCCGAGATGG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CC-----GTCCCGTCATCCACCGCGCGTGCATCGCCGAGATGG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CC-----GTCCCGTCATCCACCGCGCGTGCATCGCCGAGATGG
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	TCGTGCCCTACGCCGACCCTCCCCGTCGGCTCGTGGCAGAACTACTTC
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	TCGTGCCCTACGCCGACCCTCCCCGTCGGCTCGTGGCAGAACTACTTC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	TGGTCCCTTACGGAGACCCTCACCGGTGCGGTCTGGCAAACACTACTTC
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	TGGTCCCTTACGGAGACCCTCACCGGTGCGGTCTGGCAAACACTACTTC
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	TGGTCCCTTACGGAGACCCTCACCGGTGCGGTCTGGCAAACACTACTTC
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV01000006.1	TGGTCCCTTACGGAGACCCTCACCGGTGCGGTCTGGCAAACACTACTTC
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	TGGTCCCTTACGGAGACCCTCACCGGTGCGGTCTGGCAAACACTACTTC
<i>Brevibacterium linens</i> Accession no: CP014869.1	TCGTTCCTATGGTGACCCGTACCGGTGCGGTCTGGCAGAACTATTTTC
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	TCGTTCCTATGGTGACCCGTACCGGTGCGGTCTGGCAGAACTATTTTC
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	TCGTGCCGTATGGCGATCCGGCCCCCGTGGGTCTGGCAGAACTACTTC
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	TCGTGCCGTATGGCGATCCGGCCCCCGTGGGTCTGGCAGAACTACTTC
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	TCGTGCCGTATGGCGATCCGGCCCCCGTGGGTCTGGCAGAACTACTTC
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	TCGTGCCGTATGGCGATCCGGCCCCCGTGGGTCTGGCAGAACTACTTC
<i>Kocuria indica Accession no: CP035504.1</i>	TGGTGCCCTACGGGACCCTCCCCGTGCGGTCTGGCAGAACTACTTC
<i>Kocuria flava Accession no: CP013254.1</i>	TGGTGCCCTACGGGACCCTCCCCGTGCGGTCTGGCAGAACTACTTC
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	TCGTCCCCTACGGCGACACCGCGGGGGCGCTTCTGGATCAGCTACTTC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	TCGTCCCCTACGGCGACACCGCGGGGGCGCTTCTGGATCAGCTACTTC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYA01000039.1	TCGTCCCCTACGGCGACACCGCGGGGGCGCTTCTGGATCAGCTACTTC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	TCGTCCCCTACGGCGACACCGCGGGGGCGCTTCTGGATCAGCTACTTC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	TCGTCCCCTACGGCGACACCGCGGGGGCGCTTCTGGATCAGCTACTTC
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	TCGTCCCCTACGCCGACCCTCGCCGTGCGGTCTGGCAGAACTACTTC
<i>Paenarthrobacter aurescens Accession no: CP000474.1</i>	TTGTTCCTGACGGTATCCCTCGCCATTGGTCATGGCAGAACTACTTC
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	TGGTGCCCTACGGCGACCCGTACCCATCAGGTCTGGCAGAACTACTTC
<i>Pseudarthrobacter chlorophenolicus A6 Accession no: CP001341.1</i>	TGGTGCCCTACGGCGACCCGTACCCATCAGGTCTGGCAGAACTACTTC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	TGGTGCCCTACGGCGATCCCTCGCCGTGCGGTCTGGCAGAACTACTTC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	TGGTGCCCTACGGCGATCCCTCGCCGTGCGGTCTGGCAGAACTACTTC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	TGGTGCCCTACGGCGATCCCTCGCCGTGCGGTCTGGCAGAACTACTTC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	TGGTGCCCTACGGCGATCCCTCGCCGTGCGGTCTGGCAGAACTACTTC
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	TGGTGCCCTACGGCGATCCCTCGCCGTGCGGTCTGGCAGAACTACTTC
<i>Saccharothrix espanaensis Accession no: He804045.1</i>	TGGTGCCCTACGGCGACCCCGCGGTGGCGAACTGGATCAGCTACTTC
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	TCGTTCCTACGGCGACCCGTCCCCGTGCGGTCTGGCAGAACTACTTC
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	TCGTCCCCTACGCCGACCCTCGTGGGTGCGGTCTGGCAGAACTACTTC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	TCGTCCCCTACGCCGACCCTCGTGGGTGCGGTCTGGCAGAACTACTTC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	TCGTCCCCTACGCCGACCCTCGTGGGTGCGGTCTGGCAGAACTACTTC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	TCGTCCCCTACGCCGACCCTCGTGGGTGCGGTCTGGCAGAACTACTTC
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	ACACCGGCGAGTACCTCATCGGCCGTACGCCAACGCGCTCGAACTCGG
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	GACACGGCGAGTACCTCATCGGCCGTACGCCAACGCGCTCGAACTCGG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GATACAGGCGAATACCTGGTGGCCAGTACGCCAATCTCTGGAGCTGGG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	GATACAGGCGAATACCTGGTGGCCAGTACGCCAATCTCTGGAGCTGGG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	GATACAGGCGAATACCTGGTGGCCAGTACGCCAATCTCTGGAGCTGGG
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV01000006.1	GATACAGGCGAATACCTGGTGGCCAGTACGCCAATCTCTGGAGCTGGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GATACAGGCGAATACCTGGTGGCCAGTACGCCAATCTCTGGAGCTGGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	GACACGGCGAATACCTCGTCGGGAATGGCGAACTCGCTTGAGCTCGG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	GACACGGCGAATACCTCGTCGGGAATGGCGAACTCGCTTGAGCTCGG
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	GACACGGCGAATACCTCGTCGGCCAGTACGCCAACTCGCTCGAACTCGG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	GACACGGCGAATACCTCGTCGGCCAGTACGCCAACTCGCTCGAACTCGG
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	GACACGGCGAATACCTCGTCGGCCAGTACGCCAACTCGCTCGAACTCGG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GACACGGCGAATACCTCGTCGGCCAGTACGCCAACTCGCTCGAACTCGG
<i>Kocuria indica Accession no: CP035504.1</i>	GACACGGCGAGTACCTGGTGGGGCAGTGGGCCAACTCCCTGGAGCTCGG
<i>Kocuria flava Accession no: CP013254.1</i>	GACACGGCGAGTACCTGGTGGGGCAGTGGGCCAACTCCCTGGAGCTCGG
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	GACGCGGCGAGTACCTGCTCGGCAAGAACGCGAACTCGAGCTCGG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GACGCGGCGAGTACCTGCTCGGCAAGAACGCGAACTCGAGCTCGG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYA01000039.1	GACGCGGCGAGTACCTGCTCGGCAAGAACGCGAACTCGAGCTCGG

<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GACGCCGGCGAGTACCTGCTCGGCAAGAACGCGAACCACCTCGAGCTCGG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GACGCCGGCGAGTACCTGCTCGGCAAGAACGCGAACCACCTCGAGCTCGG
<i>Nocardiosis sp.</i> NRRL B-16309 Accession no: LGEC01000081.1	GACACCGGCGAGTACATGGTGGCCGCTACGCCAACGCCCTCCGGCTCGG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GACACCGGTGAATACCTGGTGGGTGAGTACGCGAAGCTCCTGGAGCTGGG
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	GACACCGGCGAATACCTGGTGGGCGAGTACGCCAAGCTCCTCGAAGCTCGG
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GACACCGGCGAATACCTGGTGGGCGAGTACGCCAAGCTCCTCGAAGCTCGG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GACACCGGCGAGTACATGGTGGGCGCTACGCGAACGCCCTCGAAGCTCGG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GACACCGGCGAGTACATGGTGGGCGCTACGCGAACGCCCTCGAAGCTCGG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GACACCGGCGAGTACATGGTGGGCGCTACGCGAACGCCCTCGAAGCTCGG
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	GACACCGGCGAGTACATGGTGGGCGCTACGCGAACGCCCTCGAAGCTCGG
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	GACACCGGCGAGTACATGGTGGGCGCTACGCGAACGCCCTCGAAGCTCGG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GACGCCGGCGAGTACCTGCTGGGCAAGAACGCGAAGCTCGCTGCGGCTGGG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GACACCGGCGAGTACCTCGTGGCCGAGTTCGCGAAGCTCGCTCGAGCTCGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GACACCGGCGAGTTCCTGATCGGCCGATGGCGAACGCCCTCGAAGCTGGG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GACACCGGCGAGTTCCTGATCGGCCGATGGCGAACGCCCTCGAAGCTGGG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GACACCGGCGAGTTCCTGATCGGCCGATGGCGAACGCCCTCGAAGCTGGG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GACACCGGCGAGTTCCTGATCGGCCGATGGCGAACGCCCTCGAAGCTGGG
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	CTGCGACTGCCTCGGTGAGATCACCTACCTGAGACGCGGTGATCGCCGACG
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	CTGCGACTGCCTCGGTGAGATCACCTACCTGAGACGCGGTGATCGCCGACG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	CTGCGACTGCCTGGGTGAAATCACCTACCTGAGCCCCGTCGTCGAGACG
<i>Arthrobacter sp.</i> 31Y K253DRAFT Accession no: JAFW01000002.1	CTGCGACTGCCTGGGTGAAATCACCTACCTGAGCCCCGTCGTCGAGACG
<i>Arthrobacter sp.</i> M2012083 Accession no: NZ_AKKK01000062.1	CTGCGACTGCCTGGGTGAAATCACCTACCTGAGCCCCGTCGTCGAGACG
<i>Arthrobacter sp.</i> EpRS71 Accession no: LNUV01000006.1	CTGCGACTGCCTGGGTGAAATCACCTACCTGAGCCCCGTCGTCGAGACG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	CTGCGACTGCCTGGGTGAAATCACCTACCTGAGCCCCGTCGTCGAGACG
<i>Brevibacterium linens</i> Accession no: CP014869.1	GTGTGACTGCCTCGCGATATCACCTATCTGTCGCGGTGGTGGCGAACA
<i>Brevibacterium sp.</i> YB235 Accession no: CP050153.1	GTGTGACTGCCTCGCGATATCACCTATCTGTCGCGGTGGTGGCGAACA
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	CTGCGACTGCCTCGGCGAGATTACCTACCTGAGCCCCGTCATCACCAGC
<i>Cryobacterium sp.</i> MLB32 c47 Accession no: JPRS01000047.1	CTGCGACTGCCTCGGCGAGATTACCTACCTGAGCCCCGTCATCACCAGC
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	CTGCGACTGCCTCGGCGAGATTACCTACCTGAGCCCCGTCATCACCAGC
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	CTGCGACTGCCTCGGCGAGATTACCTACCTGAGCCCCGTCATCACCAGC
<i>Kocuria indica</i> Accession no: CP035504.1	CTGCGACTGCCTGGGTGACATCACCTACCTGTCCCGGTGGTTGTGACCG
<i>Kocuria flava</i> Accession no: CP013254.1	CTGCGACTGCCTGGGTGACATCACCTACCTGTCCCGGTGGTTGTGACCG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	CTGCGACTGCCTGGGCGTATCCGCTACCTCGACGGCTACGTCGCCGACG
<i>Microbacterium oxydans</i> Accession no: CP031422.1	CTGCGACTGCCTGGGCGTATCCGCTACCTCGACGGCTACGTCGCCGACG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CTGCGACTGCCTGGGCGTATCCGCTACCTCGACGGCTACGTCGCCGACG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CTGCGACTGCCTGGGCGTATCCGCTACCTCGACGGCTACGTCGCCGACG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CTGCGACTGCCTGGGCGTATCCGCTACCTCGACGGCTACGTCGCCGACG
<i>Nocardiosis sp.</i> NRRL B-16309 Accession no: LGEC01000081.1	CTGCGACTGCCTCGGCGACATCACCTACCTGAGACGCCGTCTCGCCGACG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	CTGCGATTGCCTGGGTGACATCACGTACCTCAGCCCTGTATCAGCGATG
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	CTGTGACTGCCTGGGCGAGATCACCTACCTCAGCCCGGTATCTCCGACG
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	CTGTGACTGCCTGGGCGAGATCACCTACCTCAGCCCGGTATCTCCGACG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	CTGCGACTGCCTCGGCGACATCACCTACTTCGACGCCGTATCGCCGACG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	CTGCGACTGCCTCGGCGACATCACCTACTTCGACGCCGTATCGCCGACG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	CTGCGACTGCCTCGGCGACATCACCTACTTCGACGCCGTATCGCCGACG
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	CTGCGACTGCCTCGGCGACATCACCTACTTCGACGCCGTATCGCCGACG
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	CTGCGACTGCCTCGGCGACATCACCTACTTCGACGCCGTATCGCCGACG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CTGCGACTGCCTGGGCGTATCCACTACTTCGACGCCGTCTCGCCGACG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	CTGCGACTGCCTGGGCGAGATCACCTACCTCAGCCCGGTGGTGGCCGACG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CTGTGACTGCCTCGGCGACATCACCTACCTGAGACGCCGTATCGCCGACG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CTGTGACTGCCTCGGCGACATCACCTACCTGAGACGCCGTATCGCCGACG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CTGTGACTGCCTCGGCGACATCACCTACCTGAGACGCCGTATCGCCGACG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CTGTGACTGCCTCGGCGACATCACCTACCTGAGACGCCGTATCGCCGACG
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	AGTTCGGCCACCCCGCGTGTGCCAACCGCATCTGCCTGCACGAGGAG
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	AGTTCGGCCACCCCGCGTGTGCCAACCGCATCTGCCTGCACGAGGAG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	CCTTCGGCAACCCGCGCGAAATTCGCAACGGCATCTGCATGCACGAGGAG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	CCTTCGGCAACCCGCGCGAAATTCGCAACGGCATCTGCATGCACGAGGAG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	CCTTCGGCAACCCGCGCGAAATTCGCAACGGCATCTGCATGCACGAGGAG
<i>Arthrobacter sp. Eprs71</i> Accession no: LNUV01000006.1	CCTTCGGCAACCCGCGCGAAATTCGCAACGGCATCTGCATGCACGAGGAG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	CCTTCGGCAACCCGCGCGAAATTCGCAACGGCATCTGCATGCACGAGGAG
<i>Brevibacterium linens</i> Accession no: CP014869.1	ACCTCGGCGAACCTCGGCAGATCAAGAACGGCATCTGCATGCACGAGGAG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	ACCTCGGCGAACCTCGGCAGATCAAGAACGGCATCTGCATGCACGAGGAG
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	GCTTCGGCAACCCGCGCGAGATTCGCAACGGTATCTGCATGCACGAAGAG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	GCTTCGGCAACCCGCGCGAGATTCGCAACGGTATCTGCATGCACGAAGAG
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	GCTTCGGCAACCCGCGCGAGATTCGCAACGGTATCTGCATGCACGAAGAG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GCTTCGGCAACCCGCGCGAGATTCGCAACGGTATCTGCATGCACGAAGAG
<i>Kocuria indica</i> Accession no: CP035504.1	GGCGCGCGAACCCGCGGAGATCACCACGGCATCTGCATGCACGAGGAG
<i>Kocuria flava</i> Accession no: CP013254.1	GGCGCGCGAACCCGCGGAGATCACCACGGCATCTGCATGCACGAGGAG
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	ACCAGGGCCATCCGGTGCGGATCCCGAACGTGATCTGCATGCACGAGGAG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	ACCAGGGCCATCCGGTGCGGATCCCGAACGTGATCTGCATGCACGAGGAG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	ACCAGGGCCATCCGGTGCGGATCCCGAACGTGATCTGCATGCACGAGGAG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	ACCAGGGCCATCCGGTGCGGATCCCGAACGTGATCTGCATGCACGAGGAG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	ACCAGGGCCATCCGGTGCGGATCCCGAACGTGATCTGCATGCACGAGGAG
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	AGCGCGGAGAGCCACAGACCCCTCCCAACGCCGTGTGCCTGCACGAGGAG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	CTTTTCGGCAACCCACGCGAGATCCGCAACGGCATCTGCATGCACGAGGAA
<i>Pseudarthrobacter sp.</i> Accession no: CP041198.1	CGTTTCGGAAACCCCGCGAGATCCGCAACGGCATCTGCATGCACGAGGAG
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	CGTTTCGGAAACCCCGCGAGATCCGCAACGGCATCTGCATGCACGAGGAG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	AGTTCGGCACCCCCAAGACGCTGAAGAACGCCGTGTGCATGCACGAGGAG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	AGTTCGGCACCCCCAAGACGCTGAAGAACGCCGTGTGCATGCACGAGGAG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	AGTTCGGCACCCCCAAGACGCTGAAGAACGCCGTGTGCATGCACGAGGAG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	AGTTCGGCACCCCCAAGACGCTGAAGAACGCCGTGTGCATGCACGAGGAG
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	AGTTCGGCACCCCCAAGACGCTGAAGAACGCCGTGTGCATGCACGAGGAG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	ACCACGGCCACCCGGTGGCCATCCCCAGGGATCTGCATGCACGAGGAG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GGTTCGGCACCCCGCGCACCATCGCGAACGGCATCTGCATGCACGAGGAG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	ACACGGGTGCCCGCGCACCTGCGCAACGCGATCTGTCTGCACGAGGAG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	ACACGGGTGCCCGCGCACCTGCGCAACGCGATCTGTCTGCACGAGGAG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	ACACGGGTGCCCGCGCACCTGCGCAACGCGATCTGTCTGCACGAGGAG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	ACACGGGTGCCCGCGCACCTGCGCAACGCGATCTGTCTGCACGAGGAG
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	GACTACGGGATCCTCTGGAAGCACACCGACTGTGGGCGGGCTCGGCGGA
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	GACTACGGGATCCTCTGGAAGCACACCGACTGTGGGCGGGCTCGGCGGA
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GACGCTCGATCCTGGCCAAGCACTCGGATCTGTGGACCGGTATCAACTA
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	GACGCTCGATCCTGGCCAAGCACTCGGATCTGTGGACCGGTATCAACTA
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	GACGCTCGATCCTGGCCAAGCACTCGGATCTGTGGACCGGTATCAACTA
<i>Arthrobacter sp. Eprs71</i> Accession no: LNUV01000006.1	GACGCTCGATCCTGGCCAAGCACTCGGATCTGTGGACCGGTATCAACTA
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GACGCTCGATCCTGGCCAAGCACTCGGATCTGTGGACCGGTATCAACTA
<i>Brevibacterium linens</i> Accession no: CP014869.1	GACGCTCGATCCTGGCCAACATTCGGACTGTGGTCCGGCGTGCCTA
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	GACGCTCGATCCTGGCCAACATTCGGACTGTGGTCCGGCGTGCCTA
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	GATTGGAGCATCCTCGCCAAGCACAGCGACTGTGGAGCGGCATCGAATA
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	GATTGGAGCATCCTCGCCAAGCACAGCGACTGTGGAGCGGCATCGAATA
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	GATTGGAGCATCCTCGCCAAGCACAGCGACTGTGGAGCGGCATCGAATA
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GATTGGAGCATCCTCGCCAAGCACAGCGACTGTGGAGCGGCATCGAATA
<i>Kocuria indica</i> Accession no: CP035504.1	GACTGGTCCATCCTCTCCAAGCACACGGACTGTGGAGCGGGTGGCGTA
<i>Kocuria flava</i> Accession no: CP013254.1	GACTGGTCCATCCTCTCCAAGCACACGGACTGTGGAGCGGGTGGCGTA
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	GACACGGGATCCTCTGGAAGCACACGAACCTCG--AGGGCCGCTCCGA
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GACACGGGATCCTCTGGAAGCACACGAACCTCG--AGGGCCGCTCCGA
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GACACGGGATCCTCTGGAAGCACACGAACCTCG--AGGGCCGCTCCGA
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GACACGGGATCCTCTGGAAGCACACGAACCTCG--AGGGCCGCTCCGA

<i>Microbacterium mangrove</i> Accession no: JTDK0100001.1	GACACCGGGATCCTCTGGAAGCACACGAACCTCG--AGGGCCGCTCCGA
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GACGTGGGGTGTGTGGAAGCACAGCGACTGTGGCGGGATCGTCCGA
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GACTGGGGATCCTCTCCAAGCACTCTGACCTGTGGACCGGCATCAATTA
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	GACTGGAGCATCCTCTCCAAGCACTCCGACCTCTGGAGCGGAATCACCTA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GACTGGAGCATCCTCTCCAAGCACTCCGACCTCTGGAGCGGAATCACCTA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GACTTCGGCGTGTGTGGAAGCACACCGACTGTGGGCCGGCTCCGCCGA
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GACTTCGGCGTGTGTGGAAGCACACCGACTGTGGGCCGGCTCCGCCGA
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GACTTCGGCGTGTGTGGAAGCACACCGACTGTGGGCCGGCTCCGCCGA
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GACTTCGGCGTGTGTGGAAGCACACCGACTGTGGGCCGGCTCCGCCGA
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	GACTTCGGCGTGTGTGGAAGCACACCGACTGTGGGCCGGCTCCGCCGA
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GACTACGGCGTGCAGTGAAGCACACCAACATCCTCACCGGGCGTCCGGA
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GACGCTCGATCCTCTCCAAGCACTCCGACCTGTGGAGCGGGGTGAGCTA
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GACCACGGCATCCTCTGGAAGCATAACCGACTGTGGACCGCCGCGCCGA
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GACCACGGCATCCTCTGGAAGCATAACCGACTGTGGACCGCCGCGCCGA
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GACCACGGCATCCTCTGGAAGCATAACCGACTGTGGACCGCCGCGCCGA
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GACCACGGCATCCTCTGGAAGCATAACCGACTGTGGACCGCCGCGCCGA
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	GACCCGCGCCAGCGCCGCATGGTGTCTCGTTCTTACCACGATCGGCA
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	GACCCGCGCCAGCGCCGCATGGTGTCTCGTTCTTACCACGATCGGCA
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	CACCCGCGCAACCGCCGCTGGTGGTCTCCTTCTTTACCACCATTTGGCA
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	CACCCGCGCAACCGCCGCTGGTGGTCTCCTTCTTTACCACCATTTGGCA
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	CACCCGCGCAACCGCCGCTGGTGGTCTCCTTCTTTACCACCATTTGGCA
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV01000006.1	CACCCGCGCAACCGCCGCTGGTGGTCTCCTTCTTTACCACCATTTGGCA
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	CACCCGCGCAACCGCCGCTGGTGGTCTCCTTCTTTACCACCATTTGGCA
<i>Brevibacterium linens</i> Accession no: CP014869.1	CACCCGCGCAACCGCCGCTTCGTCTCGTTCTTACCACGGTTGGCA
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	CACCCGCGCAACCGCCGCTTCGTCTCGTTCTTACCACGGTTGGCA
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	CACCCGCGCAACCGCCGCTTCGTCTCGTTCTTACCACGGTTGGCA
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	CACCCGCGCAACCGCCGCTTCGTCTCGTTCTTACCACGGTTGGCA
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	CACCCGCGCAACCGCCGCTTCGTCTCGTTCTTACCACGGTTGGCA
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	CACCCGCGCAACCGCCGCTTCGTCTCGTTCTTACCACGGTTGGCA
<i>Kocuria indica</i> Accession no: CP035504.1	CACCCGCGCAACCGCCGCTGGTGTCTCCTTCTTACCACGGTTGGCA
<i>Kocuria flava</i> Accession no: CP013254.1	CACCCGCGCAACCGCCGCTGGTGTCTCCTTCTTACCACGGTTGGCA
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	CGTGCGCGCGCCCGCCGCTTCGTGGTGTGATATTCTCCACGATCGGCA
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CGTGCGCGCGCCCGCCGCTTCGTGGTGTGATATTCTCCACGATCGGCA
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CGTGCGCGCGCCCGCCGCTTCGTGGTGTGATATTCTCCACGATCGGCA
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CGTGCGCGCGCCCGCCGCTTCGTGGTGTGATATTCTCCACGATCGGCA
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CGTGCGCGCGCCCGCCGCTTCGTGGTGTGATATTCTCCACGATCGGCA
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GACCCGCGCGGGCGGGGATGGTGTCTCCTTCTTACCACCGTCCGCA
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	CACCCGCGCAACCGCCGCTGGTGTCTCCTTCTTACCACCGTCCGCA
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	CACCCGCGCAACCGCCGCTGGTGTCTCCTTCTTACCACCGTCCGCA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	CACCCGCGCAACCGCCGCTGGTGTCTCCTTCTTACCACCGTCCGCA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GACTCGCGCCAGCGCCGCTTCGTCTCCTTCTTACCACCGTCCGCA
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GACTCGCGCCAGCGCCGCTTCGTCTCCTTCTTACCACCGTCCGCA
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GACTCGCGCCAGCGCCGCTTCGTCTCCTTCTTACCACCGTCCGCA
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GACTCGCGCCAGCGCCGCTTCGTCTCCTTCTTACCACCGTCCGCA
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	GACTCGCGCCAGCGCCGCTTCGTCTCCTTCTTACCACCGTCCGCA
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CGTGCGCGCTTCGCGCCGCTGGTGGTGTCTCGTTCCAGACCATCGGCA
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	CGTGCGCGCAACCGCCGCTTCGTCTCAGTTCTTACCACGATCGGCA
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GACCCGCGCCAGCGCCGCATGGTGTCTCCTTCTTACCACCGTCCGCA
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GACCCGCGCCAGCGCCGCATGGTGTCTCCTTCTTACCACCGTCCGCA
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GACCCGCGCCAGCGCCGCATGGTGTCTCCTTCTTACCACCGTCCGCA
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GACCCGCGCCAGCGCCGCATGGTGTCTCCTTCTTACCACCGTCCGCA
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	ACTACGACTACGGCTTCTACTGGTACCTCTACTGGACGGCAGCATCGAG

<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	ACTACGACTACGGCTTTTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	ACTACGACTACGGCTTTTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	ACTACGACTACGGCTTTTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Arthrobacter</i> sp. Eprs71 Accession no: LNUV01000006.1	ACTACGACTACGGCTTTTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	ACTACGACTACGGCTTTTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Brevibacterium linens</i> Accession no: CP014869.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACTATCGAA
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACTATCGAA
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAA
<i>Kocuria indica</i> Accession no: CP035504.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAG
<i>Kocuria flava</i> Accession no: CP013254.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	ACTACGACTACGGCTTCTACTGGAAC	TTGGCCTGGACGGCACCATCGAG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	ACTACGACTACGGCTTCTACTGGAAC	TTGGCCTGGACGGCACCATCGAG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	ACTACGACTACGGCTTCTACTGGAAC	TTGGCCTGGACGGCACCATCGAG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	ACTACGACTACGGCTTCTACTGGAAC	TTGGCCTGGACGGCACCATCGAG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	ACTACGACTACGGCTTCTACTGGAAC	TTGGCCTGGACGGCACCATCGAG
<i>Nocardiosis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	ACTACGACTACGGCTTTTACTGGTAC	CTCTACTTGGATGGCACCATCGAA
<i>PseudArthrobacter</i> sp. Accession no: CP041198.1	ACTACGATTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAG
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	ACTACGATTACGGCTTCTACTGGTAC	CTCTACCTGGACGGCACCATCGAG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	ACTACGACTACGGCTTCTTCTGGTAC	CTGTACCTCGACGGCACCATCGAG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	ACTACGACTACGGCTTCTTCTGGTAC	CTGTACCTCGACGGCACCATCGAG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	ACTACGACTACGGCTTCTTCTGGTAC	CTGTACCTCGACGGCACCATCGAG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	ACTACGACTACGGCTTCTTCTGGTAC	CTGTACCTCGACGGCACCATCGAG
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	ACTACGACTACGGCTTCTTCTGGTAC	CTGTACCTCGACGGCACCATCGAG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	ACTACGACTACGGCTTCTTCTGGTAC	TTCTACCTCGACGGCACCATCGAG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTCGACGGCACCATCGAG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTCGATGGCGCCATCGAG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTCGATGGCGCCATCGAG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTCGATGGCGCCATCGAG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	ACTACGACTACGGCTTCTACTGGTAC	CTCTACCTCGATGGCGCCATCGAG
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	TGCGAGGCCAAGGCCACCGCGTCTGTTTACCTCCGCC	---TACCCCGG
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	TGCGAGGCCAAGGCCACCGCGTCTGTTTACCTCCGCC	---TACCCCGG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	TTCGAGGCCAAGGCCACTGGCATCGTCTTACCAGCGCG	---CATCCGGG
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	TTCGAGGCCAAGGCCACTGGCATCGTCTTACCAGCGCG	---CATCCGGG
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	TTCGAGGCCAAGGCCACTGGCATCGTCTTACCAGCGCG	---CATCCGGG
<i>Arthrobacter</i> sp. Eprs71 Accession no: LNUV01000006.1	TTCGAGGCCAAGGCCACTGGCATCGTCTTACCAGCGCG	---CATCCGGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	TTCGAGGCCAAGGCCACTGGCATCGTCTTACCAGCGCG	---CATCCGGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	TTCGAGGCCAAGGCCACCGCGTCTTACCCTCGGCG	---CTGCCGAA
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	TTCGAGGCCAAGGCCACCGCGTCTTACCCTCGGCG	---CTGCCGAA
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	TTCGAGGCCAAGGCCACCGCGTCTTACCAGGCGCC	---TAGCCCGG
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	TTCGAGGCCAAGGCCACCGCGTCTTACCAGGCGCC	---TAGCCCGG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	TTCGAGGCCAAGGCCACCGCGTCTTACCAGGCGCC	---TAGCCCGG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	TTCGAGGCCAAGGCCACCGCGTCTTACCAGGCGCC	---TAGCCCGG
<i>Kocuria indica</i> Accession no: CP035504.1	TTCGAGGCCAAGGCCACCGCGTGGTCTTACCCTCCGCC	---CTGCCCAA
<i>Kocuria flava</i> Accession no: CP013254.1	TTCGAGGCCAAGGCCACCGCGTGGTCTTACCCTCCGCC	---CTGCCCAA
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	GTGATCGCGAAGGCCACGGGCATCGTTTTCTGGGGCCGGAGAGCCCGG	
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GTGATCGCGAAGGCCACGGGCATCGTTTTCTGGGGCCGGAGAGCCCGG	
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GTGATCGCGAAGGCCACGGGCATCGTTTTCTGGGGCCGGAGAGCCCGG	
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GTGATCGCGAAGGCCACGGGCATCGTTTTCTGGGGCCGGAGAGCCCGG	
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GTGATCGCGAAGGCCACGGGCATCGTTTTCTGGGGCCGGAGAGCCCGG	

<i>Nocardioopsis sp.</i> NRRL B-16309 Accession no: LGEC0100081.1	TTCGAGGCCAAGGCCACCGGCATCGTGTTCACCTCCGCC--CACCCCGG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	TTCGAGGCAAGGCCACCGGCATCGTATTACACAGTGA---TTCCCGGA
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	TTCGAGGCCAAGGCCACCGGCCTGTGTTCACCTCGGCG---TTCCCGGA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	TTCGAGGCCAAGGCCACCGGCCTGTGTTCACCTCGGCG---TTCCCGGA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	TTCGAGGTC AAGGCCACCGGCATCGTCTTACAGTCCGGT---CACCCGGG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	TTCGAGGTC AAGGCCACCGGCATCGTCTTACAGTCCGGT---CACCCGGG
<i>Rhodococcus ruber</i> Accession no: CCSD0100085.1	TTCGAGGTC AAGGCCACCGGCATCGTCTTACAGTCCGGT---CACCCGGG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM0100005.1	TTCGAGGTC AAGGCCACCGGCATCGTCTTACAGTCCGGT---CACCCGGG
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	TTCGAGGTC AAGGCCACCGGCATCGTCTTACAGTCCGGT---CACCCGGG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CTGGAGGCCAAGGCCACCGGCCTGTGTCTCGCGCG-----CGGG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	TTCGAGGCCAAGGCCACCGGCCTGTGTTCACCTCCGCC--CAGCCCTC
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY0100001.1	TTCGAGGCGAAGGCCACCGGCATCGTCTTCCCTCCGCC--TACCCGGG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY0100080.1	TTCGAGGCGAAGGCCACCGGCATCGTCTTCCCTCCGCC--TACCCGGG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK0100041.1	TTCGAGGCGAAGGCCACCGGCATCGTCTTCCCTCCGCC--TACCCGGG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW00100006.1	TTCGAGGCGAAGGCCACCGGCATCGTCTTCCCTCCGCC--TACCCGGG
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	CAAGGGCTACCCCTACGCCTCCGAAGTTCGCGCCCGCCCTCGGCGCCCGT
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	CAAGGGCTACCCCTACGCCTCCGAAGTTCGCGCCCGCCCTCGGCGCCCGT
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	CAAGGGCTACCCCTACGCATCCGAAGTTCGCGCCCGGACTTGGTGCCCGT
<i>Arthrobacter sp.</i> 31Y K253DRAFT Accession no: JAFW0100002.1	CAAGGGCTACCCCTACGCATCCGAAGTTCGCGCCCGGACTTGGTGCCCGT
<i>Arthrobacter sp.</i> M2012083 Accession no: NZ_AKKK0100062.1	CAAGGGCTACCCCTACGCATCCGAAGTTCGCGCCCGGACTTGGTGCCCGT
<i>Arthrobacter sp.</i> Eprs71 Accession no: LNUV0100006.1	CAAGGGCTACCCCTACGCATCCGAAGTTCGCGCCCGGACTTGGTGCCCGT
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	CAAGGGCTACCCCTACGCATCCGAAGTTCGCGCCCGGACTTGGTGCCCGT
<i>Brevibacterium linens</i> Accession no: CP014869.1	CGGGTCGACGGATTTCGCCTCGGAGATCGCGCCCGGCTCGGTGCGCCG
<i>Brevibacterium sp.</i> YB235 Accession no: CP050153.1	CGGGTCGACGGATTTCGCCTCGGAGATCGCGCCCGGCTCGGTGCGCCG
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD0100024.1	CAAGGGCTATCCCTACGCCTCCGAATCGCTCCCGGCTCGGCGCCCCCT
<i>Cryobacterium sp.</i> MLB32 c47 Accession no: JPRS0100047.1	CAAGGGCTATCCCTACGCCTCCGAATCGCTCCCGGCTCGGCGCCCCCT
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF0100030.1	CAAGGGCTATCCCTACGCCTCCGAATCGCTCCCGGCTCGGCGCCCCCT
<i>Cryobacterium roopkundense</i> Accession no: JPXF0100060.1	CAAGGGCTATCCCTACGCCTCCGAATCGCTCCCGGCTCGGCGCCCCCT
<i>Kocuria indica</i> Accession no: CP035504.1	CGGCTCCTCGGACTTCGCCTCGGAATTCGCCCGGGGCTGGGTGCGCCG
<i>Kocuria flava</i> Accession no: CP013254.1	CGGCTCCTCGGACTTCGCCTCGGAATTCGCCCGGGGCTGGGTGCGCCG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	CGTCCCGCAGCGCCACGCCACCGAGCTCGCCCCGGCGTGTTCGCACCGG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CGTCCCGCAGCGCCACGCCACCGAGCTCGCCCCGGCGTGTTCGCACCGG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA0100039.1	CGTCCCGCAGCGCCACGCCACCGAGCTCGCCCCGGCGTGTTCGCACCGG
<i>Microbacterium foliorum</i> Accession no: JYIU0100019.1	CGTCCCGCAGCGCCACGCCACCGAGCTCGCCCCGGCGTGTTCGCACCGG
<i>Microbacterium mangrove</i> Accession no: JTDK0100001.1	CGTCCCGCAGCGCCACGCCACCGAGCTCGCCCCGGCGTGTTCGCACCGG
<i>Nocardioopsis sp.</i> NRRL B-16309 Accession no: LGEC0100081.1	CGGCGACTACCCCTACGCGACCGAGATCGCCCCGGACTGGGCGCGCCCT
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	AGGGGGCTCGGACAACATCTCCAGTGGCCCCGGCCTCGGCGCCCGT
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	GGGCGGCTCGGACAACATCTCCAGTGGCCCCGGCCTGGGTGCCCGT
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GGGCGGCTCGGACAACATCTCCAGTGGCCCCGGCCTGGGTGCCCGT
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	CGGCGACTACCCGTACGCCTCGGAGATCGCCCCGGCCTCGGCGCCCGT
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	CGGCGACTACCCGTACGCCTCGGAGATCGCCCCGGCCTCGGCGCCCGT
<i>Rhodococcus ruber</i> Accession no: CCSD0100085.1	CGGCGACTACCCGTACGCCTCGGAGATCGCCCCGGCCTCGGCGCCCGT
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM0100005.1	CGGCGACTACCCGTACGCCTCGGAGATCGCCCCGGCCTCGGCGCCCGT
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	CGGCGACTACCCGTACGCCTCGGAGATCGCCCCGGCCTCGGCGCCCGT
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CGGCGAGAACCCTACGGTTCGGAGATCGCCCCGGCCTGATGGCCCCG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	CGGCGACTACCCGTACTCGTCCGAGATGGCGCCGGCCTGGGCGCCCGT
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY0100001.1	CCCCGGCTACCCGTACGCCTCCGAGTTCGCCCGGGGCTCGGCGCCCGT
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY0100080.1	CCCCGGCTACCCGTACGCCTCCGAGTTCGCCCGGGGCTCGGCGCCCGT
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK0100041.1	CCCCGGCTACCCGTACGCCTCCGAGTTCGCCCGGGGCTCGGCGCCCGT
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW00100006.1	CCCCGGCTACCCGTACGCCTCCGAGTTCGCCCGGGGCTCGGCGCCCGT
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	ACCACCAGCACCTGTTTCAGCGCGCGGCTGGACATGGCCGTGGACGGCCG
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	ACCACCAGCACCTGTTTCAGCGCGCGGCTGGACATGGCCGTGGACGGCCG

<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	ACCACCAGCACCTCTTTGGGGCGCGCCTGGATATGGCCATCGACGGCTTT
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	ACCACCAGCACCTCTTTGGGGCGCGCCTGGATATGGCCATCGACGGCTTT
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	ACCACCAGCACCTCTTTGGGGCGCGCCTGGATATGGCCATCGACGGCTTT
<i>Arthrobacter sp. EPRS71</i> Accession no: LNUV01000006.1	ACCACCAGCACCTCTTTGGGGCGCGCCTGGATATGGCCATCGACGGCTTT
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	ACCACCAGCACCTCTTTGGGGCGCGCCTGGATATGGCCATCGACGGCTTT
<i>Brevibacterium linens</i> Accession no: CP014869.1	TCCACCAGCATCTCTTCGGTGCTCGACTCGACTTCGCCCTCGACGACGGC
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	TCCACCAGCATCTCTTCGGTGCTCGACTCGACTTCGCCCTCGACGACGGC
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	TTCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGGCCCTCGACGGCGAC
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	TTCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGGCCCTCGACGGCGAC
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	TTCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGGCCCTCGACGGCGAC
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	TTCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGGCCCTCGACGGCGAC
<i>Kocuria indica</i> Accession no: CP035504.1	TCCACCAGCACCTGTTCTCCGCGCGCCTGGACTTCGCGCTCGACGGCGGG
<i>Kocuria flava</i> Accession no: CP013254.1	TCCACCAGCACCTGTTCTCCGCGCGCCTGGACTTCGCGCTCGACGGCGGG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	TGCACCAGCACCTGTTCTGCGCGGACTCGACTCGCGATCGACGGATCC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	TGCACCAGCACCTGTTCTGCGCGGACTCGACTCGCGATCGACGGATCC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	TGCACCAGCACCTGTTCTGCGCGGACTCGACTCGCGATCGACGGATCC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	TGCACCAGCACCTGTTCTGCGCGGACTCGACTCGCGATCGACGGATCC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	TGCACCAGCACCTGTTCTGCGCGGACTCGACTCGCGATCGACGGATCC
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	TCCACCAGCACCTGTTCTGCGCCCGGCTCGCATGGCCCTGGACGGCACC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	TCCATCAGCACCTCTTCAGCGCCCGGCTGGCATGGCAGTTGACGGTTTC
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	TCCACCAGCACCTGTTTCAGCGCCCGGCTGGCATGGCGGTGGACGGCTTC
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	TCCACCAGCACCTGTTTCAGCGCCCGGCTGGCATGGCGGTGGACGGCTTC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	ACCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGATGATCGACGGCGAC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	ACCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGATGATCGACGGCGAC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	ACCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGATGATCGACGGCGAC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	ACCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGATGATCGACGGCGAC
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	ACCACCAGCACCTGTTTCAGCGCCCGCCTCGCATGATGATCGACGGCGAC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	TGCACCAGCACCTGTTCTGCGCGGCTGGACACCAGATCGCGGGCCCG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	TCCACCAGCACCTCTTCAGCGCGCGGCTCGACTTCGCGCTCGACAGCGGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	ACCACCAGCACCTGTTCTGCGCCCGCCTGGCATGGCCCTCGACGGCCCC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	ACCACCAGCACCTGTTCTGCGCCCGCCTGGCATGGCCCTCGACGGCCCC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	ACCACCAGCACCTGTTCTGCGCCCGCCTGGCATGGCCCTCGACGGCCCC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	ACCACCAGCACCTGTTCTGCGCCCGCCTGGCATGGCCCTCGACGGCCCC
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	TCGAACCTGGTTCGAAGAGGTCGACGTGGAGCGGGTGCCGATCGGGCCGGA
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	TCGAACCTGGTTCGAAGAGGTCGACGTGGAGCGGGTGCCGATCGGGCCGGA
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GCCAACCGTGTTCGAGGAAGAGGACGTGGTTCGCGGGTGCCCATGGGTGAAGG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	GCCAACCGTGTTCGAGGAAGAGGACGTGGTTCGCGGGTGCCCATGGGTGAAGG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	GCCAACCGTGTTCGAGGAAGAGGACGTGGTTCGCGGGTGCCCATGGGTGAAGG
<i>Arthrobacter sp. EPRS71</i> Accession no: LNUV01000006.1	GCCAACCGTGTTCGAGGAAGAGGACGTGGTTCGCGGGTGCCCATGGGTGAAGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GCCAACCGTGTTCGAGGAAGAGGACGTGGTTCGCGGGTGCCCATGGGTGAAGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	AAGTGCCGGGTCGAGGAGGAGGACGTGGTTCGCTTCGCCGTCTCGCAGGA
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	AAGTGCCGGGTCGAGGAGGAGGACGTGGTTCGCTTCGCCGTCTCGCAGGA
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	ACCAACCGGGTCGAAGAAGAAGACGTGCTGCGCGTTCCGATAGGCCCCGG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	ACCAACCGGGTCGAAGAAGAAGACGTGCTGCGCGTTCCGATAGGCCCCGG
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	ACCAACCGGGTCGAAGAAGAAGACGTGCTGCGCGTTCCGATAGGCCCCGG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	ACCAACCGGGTCGAAGAAGAAGACGTGCTGCGCGTTCCGATAGGCCCCGG
<i>Kocuria indica</i> Accession no: CP035504.1	CCCTGCCGCTGGAGGAGGAGGACGCGGTGCGCGTGCCCATCTCCGACGA
<i>Kocuria flava</i> Accession no: CP013254.1	CCCTGCCGCTGGAGGAGGAGGACGCGGTGCGCGTGCCCATCTCCGACGA
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	GACAACCGCCTCGTCGAGGTCGACGCGGCGCGCTCCCGATGGGCCCGGA
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GACAACCGCCTCGTCGAGGTCGACGCGGCGCGCTCCCGATGGGCCCGGA
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GACAACCGCCTCGTCGAGGTCGACGCGGCGCGCTCCCGATGGGCCCGGA
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GACAACCGCCTCGTCGAGGTCGACGCGGCGCGCTCCCGATGGGCCCGGA
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GACAACCGCCTCGTCGAGGTCGACGCGGCGCGCTCCCGATGGGCCCGGA
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GCCAACCGTGTGGTGGAGGTGGACGCCGCCCGCTCCCATCGGCCCGGA

<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GCCAACCGCGTGGAGGAAGAAGACGTGGTCCGGCAGGCAATGGGCGAAGG
<i>PseudArthrobacter</i> sp. Accession no: CP041198.1	ACCAACCGGGTAGAGGAAGAGGACGTCATCCGGCAGGTGATGGGCCC
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	ACCAACCGGGTAGAGGAAGAGGACGTCATCCGGCAGGTGATGGGCCC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	CACAACCTCCGTCGAGGAGGTACAGACCAAGCGGGTGAAGATGGGCC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	CACAACCTCCGTCGAGGAGGTACAGACCAAGCGGGTGAAGATGGGCC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	CACAACCTCCGTCGAGGAGGTACAGACCAAGCGGGTGAAGATGGGCC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	CACAACCTCCGTCGAGGAGGTACAGACCAAGCGGGTGAAGATGGGCC
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	CACAACCTCCGTCGAGGAGGTACAGACCAAGCGGGTGAAGATGGGCC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GCCAACACGGTGGAGGAGGTGACTTCGTCCGGCTCCCGACCGGGCCGGA
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	CCGAACCGCGTTCGAGGAGGAGGACGCCGTCCCGCTGGCCGCGGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CGGAACCGGGTGGAGGAGATCGATGCCGTACGGGTGCCGATGGGACC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CGGAACCGGGTGGAGGAGATCGATGCCGTACGGGTGCCGATGGGACC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CGGAACCGGGTGGAGGAGATCGATGCCGTACGGGTGCCGATGGGACC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CGGAACCGGGTGGAGGAGATCGATGCCGTACGGGTGCCGATGGGACC
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	CAACCCGCGCGCAACGCCTTACGCTCCGCAAGACGCCGCTGCGGAAGG
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	CAACCCGCGCGCAACGCCTTACGCTCCGCAAGACGCCGCTGCGGAAGG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GAATGAACGCGGCAATGCCTTACGCGCAAGCGCACCATTTTGGGTACGG
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	GAATGAACGCGGCAATGCCTTACGCGCAAGCGCACCATTTTGGGTACGG
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	GAATGAACGCGGCAATGCCTTACGCGCAAGCGCACCATTTTGGGTACGG
<i>Arthrobacter</i> sp. EPRS71 Accession no: LNUV01000006.1	GAATGAACGCGGCAATGCCTTACGCGCAAGCGCACCATTTTGGGTACGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GAATGAACGCGGCAATGCCTTACGCGCAAGCGCACCATTTTGGGTACGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	CAATCCGCGCGCAACGCCTTACGCGGTCGCCAACCATTCTGGCAACCG
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	CAATCCGCGCGCAACGCCTTACGCGGTCGCCAACCATTCTGGCAACCG
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	CAACGAGCGCGGCAACGCCTTACCCGCCAGCGCACCCTGCTCGCCACCG
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	CAACGAGCGCGGCAACGCCTTACCCGCCAGCGCACCCTGCTCGCCACCG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	CAACGAGCGCGGCAACGCCTTACCCGCCAGCGCACCCTGCTCGCCACCG
<i>Cryobacterium roopkundense</i> Accession no: JPDF01000060.1	CAACGAGCGCGGCAACGCCTTACCCGCCAGCGCACCCTGCTCGCCACCG
<i>Kocuria indica</i> Accession no: CP035504.1	CAACTCCGCGGCAACGCCTTACCCGCAGCGCACCCTGCTGGAGACGG
<i>Kocuria flava</i> Accession no: CP013254.1	CAACTCCGCGGCAACGCCTTACCCGCAGCGCACCCTGCTGGAGACGG
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	GAACCGGTTCCGCAACGCCTTACGCTGGACCGAGACCGCCTCGGATCCG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GAACCGGTTCCGCAACGCCTTACGCTGGACCGAGACCGCCTCGGATCCG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GAACCGGTTCCGCAACGCCTTACGCTGGACCGAGACCGCCTCGGATCCG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GAACCGGTTCCGCAACGCCTTACGCTGGACCGAGACCGCCTCGGATCCG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GAACCGGTTCCGCAACGCCTTACGCTGGACCGAGACCGCCTCGGATCCG
<i>Nocardiosis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	CAATCCGCGCGCAACGCCTTACCCAGAAGCACACCCTGCTGGCCTCCG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	CAACGAGCGTGGCAATGCGTTCTCCCGCAAGCGCACTGTCTGGCCACAG
<i>PseudArthrobacter</i> sp. Accession no: CP041198.1	GAACGAGCGTGGCAACGCCTTCTCCCGCCGGCGCAGCTGCTGGCCC
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	GAACGAGCGTGGCAACGCCTTCTCCCGCCGGCGCAGCTGCTGGCCC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GAACCTGCACGGAACCGGTTACCCCTCGAGCGCAGCCGCTGACGAAGG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GAACCTGCACGGAACCGGTTACCCCTCGAGCGCAGCCGCTGACGAAGG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GAACCTGCACGGAACCGGTTACCCCTCGAGCGCAGCCGCTGACGAAGG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GAACCTGCACGGAACCGGTTACCCCTCGAGCGCAGCCGCTGACGAAGG
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	GAACCTGCACGGAACCGGTTACCCCTCGAGCGCAGCCGCTGACGAAGG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CAACCCGCGCGCAACGCCTTACACCACGACGACCGTCTCGACCGCG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GAACGAGCGCGGCAACGCCTTACCCGCAGGCGCAGCTCTGGCCCGCG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CAACCCCGCGGCAACGCCTTACCCCTCCGGCGCACCCCGCTGGCACCG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CAACCCCGCGGCAACGCCTTACCCCTCCGGCGCACCCCGCTGGCACCG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CAACCCCGCGGCAACGCCTTACCCCTCCGGCGCACCCCGCTGGCACCG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CAACCCCGCGGCAACGCCTTACCCCTCCGGCGCACCCCGCTGGCACCG
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	AATCCGAAGCGCAGCGGCTCGCCGACAACCGGCGCGCCGGGTCTGGCAC
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	AATCCGAAGCGCAGCGGCTCGCCGACAACCGGCGCGCCGGGTCTGGCAC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	AATCCGAGGCTGTCCGTGAGGCGGACATGCTGCCGGCGGACCTGGATC

<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW0100002.1	AATCCGAGGCTGTCCGTGAGGCGGACATGCGTGCCGGGCGACCTGGATC
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK0100062.1	AATCCGAGGCTGTCCGTGAGGCGGACATGCGTGCCGGGCGACCTGGATC
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV0100006.1	AATCCGAGGCTGTCCGTGAGGCGGACATGCGTGCCGGGCGACCTGGATC
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	AATCCGAGGCTGTCCGTGAGGCGGACATGCGTGCCGGGCGACCTGGATC
<i>Brevibacterium linens</i> Accession no: CP014869.1	AGTCAGCTGCAACAACGAGATGCGGATCAGTCGAAGGCGCGGACCTGGGTG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	AGTCAGCTGCAACAACGAGATGCGGATCAGTCGAAGGCGCGGACCTGGGTG
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	AGCTCGAGGGCGTCAGACAAGCGGATGCCGCCATCGGCCGCACCTGGCAC
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	AGCTCGAGGGCGTCAGACAAGCGGATGCCGCCATCGGCCGCACCTGGCAC
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	AGCTCGAGGGCGTCAGACAAGCGGATGCCGCCATCGGCCGCACCTGGCAC
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	AGCTCGAGGGCGTCAGACAAGCGGATGCCGCCATCGGCCGCACCTGGCAC
<i>Kocuria indica</i> Accession no: CP035504.1	AGAAGGCCGCCATGCGGGACGCGGACATGTCGCCGGGCGCGCACCTGGGTG
<i>Kocuria flava</i> Accession no: CP013254.1	AGAAGGCCGCCATGCGGGACGCGGACATGTCGCCGGGCGCGCACCTGGGTG
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	AGTCCGCGCGCAGCGCGACGCCACCTCCGTCGCCCGGGTCTGGGAG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	AGTCCGCGCGCAGCGCGACGCCACCTCCGTCGCCCGGGTCTGGGAG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	AGTCCGCGCGCAGCGCGACGCCACCTCCGTCGCCCGGGTCTGGGAG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	AGTCCGCGCGCAGCGCGACGCCACCTCCGTCGCCCGGGTCTGGGAG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	AGTCCGCGCGCAGCGCGACGCCACCTCCGTCGCCCGGGTCTGGGAG
<i>Nocardioopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	AGAACCAGGCCAGCGCGACGCCACCTCCGTCGACCGGGTCTGGCAC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	AGTCCCAGGCCGTCGCGAAGCCGATGCCCGCGCAGGCCGCACCTGGATC
<i>Pseudarthrobacter sp.</i> Accession no: CP041198.1	AATCCGACGCGCTCCGGGAGGCCGATGCGCGGGCCGCCGCACTTGGATC
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	AATCCGACGCGCTCCGGGAGGCCGATGCGCGGGCCGCCGCACTTGGATC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	AATCCGAGGCGCAGCGCCTCGCGGACAACAGCGTCGGACGCGTGTGGCAC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	AATCCGAGGCGCAGCGCCTCGCGGACAACAGCGTCGGACGCGTGTGGCAC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	AATCCGAGGCGCAGCGCCTCGCGGACAACAGCGTCGGACGCGTGTGGCAC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	AATCCGAGGCGCAGCGCCTCGCGGACAACAGCGTCGGACGCGTGTGGCAC
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	AATCCGAGGCGCAGCGCCTCGCGGACAACAGCGTCGGACGCGTGTGGCAC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	AGTCGACCGCGAGTCGCTGGCCGACCCGTCGCGGGCCGCACCTGGGTG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	AGTCCCAGGCGCGCGGGAGAACGACATGGCGCCGGCGCTCGTGGGTG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	AGTCGAGGCCCAGCGGGACGCCACCTCCGCTGGGCCGGTGTGGCAC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	AGTCGAGGCCCAGCGGGACGCCACCTCCGCTGGGCCGGTGTGGCAC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	AGTCGAGGCCCAGCGGGACGCCACCTCCGCTGGGCCGGTGTGGCAC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	AGTCGAGGCCCAGCGGGACGCCACCTCCGCTGGGCCGGTGTGGCAC
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	ATCACAACCCGGAGTCCCACAACCCGCTCGGCGACCCCGTCGCTACGC
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	ATCACAACCCGGAGTCCCACAACCCGCTCGGCGACCCCGTCGCTACGC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	ATTTCCAATCCAACGTCGCTGAATCGCCTGGGCGAGCCCGTGGGTACAA
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW0100002.1	ATTTCCAATCCAACGTCGCTGAATCGCCTGGGCGAGCCCGTGGGTACAA
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK0100062.1	ATTTCCAATCCAACGTCGCTGAATCGCCTGGGCGAGCCCGTGGGTACAA
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV0100006.1	ATTTCCAATCCAACGTCGCTGAATCGCCTGGGCGAGCCCGTGGGTACAA
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	ATTTCCAATCCAACGTCGCTGAATCGCCTGGGCGAGCCCGTGGGTACAA
<i>Brevibacterium linens</i> Accession no: CP014869.1	GTGACAAATCCGGAGTCGACCAACCCGCTCGGCAACCCGTCGGCTACAA
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	GTGACAAATCCGGAGTCGACCAACCCGCTCGGCAACCCGTCGGCTACAA
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	GTCTCCAACCCCAATTCCTCAATCGCCTCGGCGAACCCGTCGCGTACAA
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	GTCTCCAACCCCAATTCCTCAATCGCCTCGGCGAACCCGTCGCGTACAA
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	GTCTCCAACCCCAATTCCTCAATCGCCTCGGCGAACCCGTCGCGTACAA
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GTCTCCAACCCCAATTCCTCAATCGCCTCGGCGAACCCGTCGCGTACAA
<i>Kocuria indica</i> Accession no: CP035504.1	GTCTCCAGCACCGAGCACACCAACCCGCTGGGCCACCCCGTGGGTACAA
<i>Kocuria flava</i> Accession no: CP013254.1	GTCTCCAGCACCGAGCACACCAACCCGCTGGGCCACCCCGTGGGTACAA
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	GTGCAGAGCGCCTCGCACACGAATGCCGTCGGGCCGCGACCCGCTATCA
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GTGCAGAGCGCCTCGCACACGAATGCCGTCGGGCCGCGACCCGCTATCA
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GTGCAGAGCGCCTCGCACACGAATGCCGTCGGGCCGCGACCCGCTATCA
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GTGCAGAGCGCCTCGCACACGAATGCCGTCGGGCCGCGACCCGCTATCA
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GTGCAGAGCGCCTCGCACACGAATGCCGTCGGGCCGCGACCCGCTATCA
<i>Nocardioopsis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	ATCACAACCCGGCTCCCCAACCCGCTCGGCCGCACCTGGCTACGC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	ATCTCCAACCCGAGTCCAAAACCCGCTGGGTGAGCCGTCGGCTACAA

<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	ATCTCCAACCCGGAATCCCGCAACCGGCTGGGCGAACCCGTGGGCTACAA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	ATCTCCAACCCGGAATCCCGCAACCGGCTGGGCGAACCCGTGGGCTACAA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	ATCAGCAACCCGAACAAGCTGAACCGTCTGGGCAAGCCGGTGGCGTACGC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	ATCAGCAACCCGAACAAGCTGAACCGTCTGGGCAAGCCGGTGGCGTACGC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	ATCAGCAACCCGAACAAGCTGAACCGTCTGGGCAAGCCGGTGGCGTACGC
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	ATCAGCAACCCGAACAAGCTGAACCGTCTGGGCAAGCCGGTGGCGTACGC
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	ATCAGCAACCCGAACAAGCTGAACCGTCTGGGCAAGCCGGTGGCGTACGC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GTCAGCAGTCCGACGAGGTGAACCCGGTGGGCAAGCCGCGCGCTACCA
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GTCTCCAACCCCGGCTCGTCAACCCGCTCGGCGAGCCCGTGGCCTACAA
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	ATCTCCAACCCGAGTTCGTCACCTCCCTCGGCGCGCCCGTGGGTACAC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	ATCTCCAACCCGAGTTCGTCACCTCCCTCGGCGCGCCCGTGGGTACAC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	ATCTCCAACCCGAGTTCGTCACCTCCCTCGGCGCGCCCGTGGGTACAC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	ATCTCCAACCCGAGTTCGTCACCTCCCTCGGCGCGCCCGTGGGTACAC
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	ACTCGTCCCGGAAGGCAACCCGGAAGTCTGCTGCGGACGACGCGTCTGTTCA
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	ACTCGTCCCGGAAGGCAACCCGGAAGTCTGCTGCGGACGACGCGTCTGTTCA
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GCTGCACCCCTCAGGGCCAACCGATGCTGTGTGGCGGACCCGAATCATCGG
<i>Arthrobacter sp.</i> 31Y K253DRAFT Accession no: JAFW01000002.1	GCTGCACCCCTCAGGGCCAACCGATGCTGTGTGGCGGACCCGAATCATCGG
<i>Arthrobacter sp.</i> M2012083 Accession no: NZ_AKKK01000062.1	GCTGCACCCCTCAGGGCCAACCGATGCTGTGTGGCGGACCCGAATCATCGG
<i>Arthrobacter sp.</i> EpRS71 Accession no: LNUV01000006.1	GCTGCACCCCTCAGGGCCAACCGATGCTGTGTGGCGGACCCGAATCATCGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GCTGCACCCCTCAGGGCCAACCGATGCTGTGTGGCGGACCCGAATCATCGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	GCTGCACCCGATGGGCTGCCACACTGCTCGCCGCGAGGATACTGTCGA
<i>Brevibacterium sp.</i> YB235 Accession no: CP050153.1	GCTGCACCCGATGGGCTGCCACACTGCTCGCCGCGAGGATACTGTCGA
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	GCTGCACCCGAGGGGCTGCCCGTGTGCTGGCCGACCCGAGTCTGTCGG
<i>Cryobacterium sp.</i> MLB32 c47 Accession no: JPRS01000047.1	GCTGCACCCGAGGGGCTGCCCGTGTGCTGGCCGACCCGAGTCTGTCGG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	GCTGCACCCGAGGGGCTGCCCGTGTGCTGGCCGACCCGAGTCTGTCGG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GCTGCACCCGAGGGGCTGCCCGTGTGCTGGCCGACCCGAGTCTGTCGG
<i>Kocuria indica</i> Accession no: CP035504.1	GCTGCACCCGAGGGGCTGCCACCATGCTGGCCTCGGAGGACTCCTCGA
<i>Kocuria flava</i> Accession no: CP013254.1	GCTGCACCCGAGGGGCTGCCACCATGCTGGCCTCGGAGGACTCCTCGA
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	GCTCGTGCCGACCGACCGCGCTGCTCATGGCGGATCCGGCGTCTCCG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	GCTCGTGCCGACCGACCGCGCTGCTCATGGCGGATCCGGCGTCTCCG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GCTCGTGCCGACCGACCGCGCTGCTCATGGCGGATCCGGCGTCTCCG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GCTCGTGCCGACCGACCGCGCTGCTCATGGCGGATCCGGCGTCTCCG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GCTCGTGCCGACCGACCGCGCTGCTCATGGCGGATCCGGCGTCTCCG
<i>Nocardiosis sp.</i> NRRL B-16309 Accession no: LGEC01000081.1	CCTCCAGCCGAGGGCAAGCCGGTCTGCTCGCCGATCCCGCCTCGTCCG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	ACTCCACGCCGAGAACCCAGCCACGCTGCTGGCTGATCCCGGTTCTCCA
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	GCTCCACTCCACAAACCAGCCACGCTGCTCGCCGACCCGGAATCGTCCA
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	GCTCCACTCCACAAACCAGCCACGCTGCTCGCCGACCCGGAATCGTCCA
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	ACTCCACCCGAGGGTTCAGCCGATCTGCTGGCCGACGACGACTCCTCGA
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	ACTCCACCCGAGGGTTCAGCCGATCTGCTGGCCGACGACGACTCCTCGA
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	ACTCCACCCGAGGGTTCAGCCGATCTGCTGGCCGACGACGACTCCTCGA
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	ACTCCACCCGAGGGTTCAGCCGATCTGCTGGCCGACGACGACTCCTCGA
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	ACTCCACCCGAGGGTTCAGCCGATCTGCTGGCCGACGACGACTCCTCGA
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GCTCGTGCCCAAGCCGCTCCGACGCTGCTCGCGACCCGACTCGACGA
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GATCCACCCGAGGGCAGCCGACGCTCCTGGCCGACCCGGCGTCTGTCGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CCTCCACCCGAGGGCAGCCGACCTGCTCGCCGACCCGGGCTCGTCCA
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CCTCCACCCGAGGGCAGCCGACCTGCTCGCCGACCCGGGCTCGTCCA
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CCTCCACCCGAGGGCAGCCGACCTGCTCGCCGACCCGGGCTCGTCCA
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CCTCCACCCGAGGGCAGCCGACCTGCTCGCCGACCCGGGCTCGTCCA
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	TCCATGCCCCGCCACGTTTCGCCACCAAGCACCTCTGGGTCACCCGCTAC
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	TCCATGCCCCGCCACGTTTCGCCACCAAGCACCTCTGGGTCACCCGCTAC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	TGGCCAGCGCGCTACATTTGCCACGAAGGACCTGTGGGTCACGCAATTT
<i>Arthrobacter sp.</i> 31Y K253DRAFT Accession no: JAFW01000002.1	TGGCCAGCGCGCTACATTTGCCACGAAGGACCTGTGGGTCACGCAATTT

<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	TGGCCAGCGCGCTACATTTGCCACGAAGGACCTGTGGGTCACGCAATTT
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV01000006.1	TGGCCAGCGCGCTACATTTGCCACGAAGGACCTGTGGGTCACGCAATTT
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	TGGCCAGCGCGCTACATTTGCCACGAAGGACCTGTGGGTCACGCAATTT
<i>Brevibacterium linens</i> Accession no: CP014869.1	TCCATCGCCGCGCCACGTTTCGCGTGAAGTCGCTGTGGGTCGCGAGTAT
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	TCCATCGCCGCGCCACGTTTCGCGTGAAGTCGCTGTGGGTCGCGAGTAT
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	TGGCCAGCGCGCGCGGTTTCGCCACCAAGGGCCTCTGGGTCACCCGCTTC
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	TGGCCAGCGCGCGCGGTTTCGCCACCAAGGGCCTCTGGGTCACCCGCTTC
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	TGGCCAGCGCGCGCGGTTTCGCCACCAAGGGCCTCTGGGTCACCCGCTTC
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	TGGCCAGCGCGCGCGGTTTCGCCACCAAGGGCCTCTGGGTCACCCGCTTC
<i>Kocuria indica</i> Accession no: CP035504.1	TCCACCGCCGCGCCGCGTTTCGCCACCAAGGCCCTGTGGGTCACCCCGTAC
<i>Kocuria flava</i> Accession no: CP013254.1	TCCACCGCCGCGCCGCGTTTCGCCACCAAGGCCCTGTGGGTCACCCCGTAC
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	TCGCGGGCGCGCGCGGTTTCGCGACCAAGCACCTCTGGGCCACCCGCGCAC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	TCGCGGGCGCGCGCGGTTTCGCGACCAAGCACCTCTGGGCCACCCGCGCAC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	TCGCGGGCGCGCGCGGTTTCGCGACCAAGCACCTCTGGGCCACCCGCGCAC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	TCGCGGGCGCGCGCGGTTTCGCGACCAAGCACCTCTGGGCCACCCGCGCAC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	TCGCGGGCGCGCGCGGTTTCGCGACCAAGCACCTCTGGGCCACCCGCGCAC
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	TGGCCGCGCGCGCCGCTTCGCCACCAAGGCCACCTGTGGGTGACCCGCTAC
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	TTGCGAAGCGTGCGGCTTTTCGCCACCAAGGACGATGGGTACCCGCTAT
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	TCGCCCGCGTGCCGCGTTTCGCCACCAAGGACCTGTGGGTTACCCGCTAC
<i>Pseudarthrobacter chlorophenolicus A6</i> Accession no: CP001341.1	TCGCCCGCGTGCCGCGTTTCGCCACCAAGGACCTGTGGGTTACCCGCTAC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	TCGCCGCGCGGGCGACGTTTCGCCACCAAGGACCTGTGGGTCACCCAGTTC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	TCGCCGCGCGGGCGACGTTTCGCCACCAAGGACCTGTGGGTCACCCAGTTC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	TCGCCGCGCGGGCGACGTTTCGCCACCAAGGACCTGTGGGTCACCCAGTTC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	TCGCCGCGCGGGCGACGTTTCGCCACCAAGGACCTGTGGGTCACCCAGTTC
<i>Rhodococcus sp.SC4 SC4</i> Accession no: LSBM01000283.1	TCGCCGCGCGGGCGACGTTTCGCCACCAAGGACCTGTGGGTCACCCAGTTC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	TCGCCGCGCGCGGGGTTTCGCGTCCCGACACCTGTGGGTGACCCGCTTC
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	TCGCCGCGCGCGCGGTTTCGCGACCAAGGCCCTCTGGGTGACCCGCTAC
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	TCGCCGCGCGCGCGCCTTCGCCACCCGGCATCTGTGGGTCACCCGCTAC
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	TCGCCGCGCGCGCGCCTTCGCCACCCGGCATCTGTGGGTCACCCGCTAC
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	TCGCCGCGCGCGCGCCTTCGCCACCCGGCATCTGTGGGTCACCCGCTAC
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	TCGCCGCGCGCGCGCCTTCGCCACCCGGCATCTGTGGGTCACCCGCTAC
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	GACCCCGCGCAGCGCTACGCGGCAGGCGACTTCGTCAACCAGCAGCCCGG
<i>Amycolatopsis japonica strain MG417-CF17</i> Accession no: CP008953.1	GACCCCGCGCAGCGCTACGCGGCAGGCGACTTCGTCAACCAGCAGCCCGG
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	TCCGAGGATGAGCGCTACCCACGGGTGACTTTGTCAACCAGCAGCGCGG
<i>Arthrobacter sp. 31Y K253DRAFT</i> Accession no: JAFW01000002.1	TCCGAGGATGAGCGCTACCCACGGGTGACTTTGTCAACCAGCAGCGCGG
<i>Arthrobacter sp. M2012083</i> Accession no: NZ_AKKK01000062.1	TCCGAGGATGAGCGCTACCCACGGGTGACTTTGTCAACCAGCAGCGCGG
<i>Arthrobacter sp. EpRS71</i> Accession no: LNUV01000006.1	TCCGAGGATGAGCGCTACCCACGGGTGACTTTGTCAACCAGCAGCGCGG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	TCCGAGGATGAGCGCTACCCACGGGTGACTTTGTCAACCAGCAGCGCGG
<i>Brevibacterium linens</i> Accession no: CP014869.1	CACGAGGACGAACGCTATCCGACCCGGGACTTCCCGAATCAGCATCCCGG
<i>Brevibacterium sp. YB235</i> Accession no: CP050153.1	CACGAGGACGAACGCTATCCGACCCGGGACTTCCCGAATCAGCATCCCGG
<i>Cryobacterium flavum strain Hh8</i> Accession no: SOFD01000024.1	GCCGAAGACGAACGCTATCCACCCGGTGACTTCGTCAACCAGCAGCGCGG
<i>Cryobacterium sp. MLB32 c47</i> Accession no: JPRS01000047.1	GCCGAAGACGAACGCTATCCACCCGGTGACTTCGTCAACCAGCAGCGCGG
<i>Cryobacterium luteum strain Hh15</i> Accession no: SOFF01000030.1	GCCGAAGACGAACGCTATCCACCCGGTGACTTCGTCAACCAGCAGCGCGG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GCCGAAGACGAACGCTATCCACCCGGTGACTTCGTCAACCAGCAGCGCGG
<i>Kocuria indica</i> Accession no: CP035504.1	GAGGAGTCCGAGCGGTACCCACCCGGCGACTTCCCAACCAGCAGCGCGG
<i>Kocuria flava</i> Accession no: CP013254.1	GAGGAGTCCGAGCGGTACCCACCCGGCGACTTCCCAACCAGCAGCGCGG
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	CGCGAGGGCGAGCTGTGGCCCGCGCGCGCTATCCGAACCGCACCCAGGG
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CGCGAGGGCGAGCTGTGGCCCGCGCGCGCTATCCGAACCGCACCCAGGG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CGCGAGGGCGAGCTGTGGCCCGCGCGCGCTATCCGAACCGCACCCAGGG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CGCGAGGGCGAGCTGTGGCCCGCGCGCGCTATCCGAACCGCACCCAGGG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CGCGAGGGCGAGCTGTGGCCCGCGCGCGCTATCCGAACCGCACCCAGGG
<i>Nocardiosis sp. NRRL B-16309</i> Accession no: LGEC01000081.1	GATCCCGCGCAGCGCTACCCGCGGGGCGACTTCGTCAACCAGCAGCCCGG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	GCCGACGAGGAACGCTACCCACCCGGGCGACTTCGTGAACCAGCACTCCGG
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	GCCGAGGAGGAGCGCTACCCACCCGGGCGACTTCGTGAACCAGCACTCCGG

<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	GCCGAGGAGGAGCGCTACCCACGGGCGACTTCGTGAACCAGCACTCCGG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GACGAGAAGGAGCGTTACGCGGCAGGGGATTCGTGAACCAGCACGCGGG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GACGAGAAGGAGCGTTACGCGGCAGGGGATTCGTGAACCAGCACGCGGG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GACGAGAAGGAGCGTTACGCGGCAGGGGATTCGTGAACCAGCACGCGGG
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	GACGAGAAGGAGCGTTACGCGGCAGGGGATTCGTGAACCAGCACGCGGG
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	GACGAGAAGGAGCGTTACGCGGCAGGGGATTCGTGAACCAGCACGCGGG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CACGAGGACGAGCGCTACCCGCGGGCGAGTACCCCGACCAGCACCCCGG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GACGAGGCGGAGCGGTACCCACGGGCGACTTCGTGAACCAGCACCCCGG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GATCCCGCCGAGCGCTACCCCGCCGGCGACTTCGTCAACCAGCATCCCGG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GATCCCGCCGAGCGCTACCCCGCCGGCGACTTCGTCAACCAGCATCCCGG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GATCCCGCCGAGCGCTACCCCGCCGGCGACTTCGTCAACCAGCATCCCGG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GATCCCGCCGAGCGCTACCCCGCCGGCGACTTCGTCAACCAGCATCCCGG
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	TGGCGCCGGGCTGCCCGCCTACGTGGCCGGTGAC---CGCGAC-----C
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	TGGCGCCGGGCTGCCCGCCTACGTGGCCGGTGAC---CGCGAC-----C
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	CGGCGCGGGCTGCCCGCTTACATGCGCGCAAC---CGAGAG-----T
<i>Arthrobacter sp.</i> 31Y K253DRAFT Accession no: JAFW01000002.1	CGGCGCGGGCTGCCCGCTTACATGCGCGCAAC---CGAGAG-----T
<i>Arthrobacter sp.</i> M2012083 Accession no: NZ_AKKK01000062.1	CGGCGCGGGCTGCCCGCTTACATGCGCGCAAC---CGAGAG-----T
<i>Arthrobacter sp.</i> EprS71 Accession no: LNUV01000006.1	CGGCGCGGGCTGCCCGCTTACATGCGCGCAAC---CGAGAG-----T
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	CGGCGCGGGCTGCCCGCTTACATGCGCGCAAC---CGAGAG-----T
<i>Brevibacterium linens</i> Accession no: CP014869.1	CCACGCGGGACTTCCGCGGTGGACGGCGCGCGAT---CGCAGC-----G
<i>Brevibacterium sp.</i> YB235 Accession no: CP050153.1	CCACGCGGGACTTCCGCGGTGGACGGCGCGCGAT---CGCAGC-----G
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	CGGCGCCGGGCTGCCCGCTTACATGCGCGCGAC---CGAGCG-----A
<i>Cryobacterium sp.</i> MLB32 c47 Accession no: JPRS01000047.1	CGGCGCCGGGCTGCCCGCTTACATGCGCGCGAC---CGAGCG-----A
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	CGGCGCCGGGCTGCCCGCTTACATGCGCGCGAC---CGAGCG-----A
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	CGGCGCCGGGCTGCCCGCTTACATGCGCGCGAC---CGAGCG-----A
<i>Kocuria indica</i> Accession no: CP035504.1	TAACGGCGGCTGCCCGAGTGGACCGCCAGGAC---CGCTCG-----G
<i>Kocuria flava</i> Accession no: CP013254.1	TAACGGCGGCTGCCCGAGTGGACCGCCAGGAC---CGCTCG-----G
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	CGGGTGGGCTGCCCGAGTACTCCGCGAGCGACGCCCCCTTGGACGGCC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CGGGTGGGCTGCCCGAGTACTCCGCGAGCGACGCCCCCTTGGACGGCC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CGGGTGGGCTGCCCGAGTACTCCGCGAGCGACGCCCCCTTGGACGGCC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CGGGTGGGCTGCCCGAGTACTCCGCGAGCGACGCCCCCTTGGACGGCC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CGGGTGGGCTGCCCGAGTACTCCGCGAGCGACGCCCCCTTGGACGGCC
<i>Nocardiosis sp.</i> NRRL B-16309 Accession no: LGEC01000081.1	CGGCGCCGGGCTGCCCGCTTACGCGCCGCGCGAC---CGCGAC-----C
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	CGGCGCCGGGTTGCCCGCTTATGTGGCCAGGAC---CGCGAC-----A
<i>PseudArthrobacter sp.</i> Accession no: CP041198.1	CGGCGCCGGGCTCCCGCTTACGTGGCACAGGAC---CGGGAC-----A
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	CGGCGCCGGGCTCCCGCTTACGTGGCACAGGAC---CGGGAC-----A
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	TGGCGCCGGGCTGCCCGCTTTCGTGGCCGGCGAT---CGGGAT-----C
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	TGGCGCCGGGCTGCCCGCTTTCGTGGCCGGCGAT---CGGGAT-----C
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	TGGCGCCGGGCTGCCCGCTTTCGTGGCCGGCGAT---CGGGAT-----C
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	TGGCGCCGGGCTGCCCGCTTTCGTGGCCGGCGAT---CGGGAT-----C
<i>Rhodococcus sp.</i> SC4 SC4 Accession no: LSBM01000283.1	TGGCGCCGGGCTGCCCGCTTTCGTGGCCGGCGAT---CGGGAT-----C
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	TGGCGCGGGGCTGCCCGCTGGGCGCGCAGGAC---CGCCCG-----C
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GGGAGCCGGGCTGCCCGCTTACAGACCCAGGAC---CGCGAC-----C
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CGGCGCGGGTCTGCCCGCTTACAGCGCGCGGAC---CGTTCG-----C
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CGGCGCGGGTCTGCCCGCTTACAGCGCGCGGAC---CGTTCG-----C
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CGGCGCGGGTCTGCCCGCTTACAGCGCGCGGAC---CGTTCG-----C
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CGGCGCGGGTCTGCCCGCTTACAGCGCGCGGAC---CGTTCG-----C
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<i>Amycolatopsis thermoflava</i> N1165 Accessionn no: NZ_KI421511.1	TCGACGGGCGAGACCTCGTCTGTGGCACACCTTCGGCCTCAGCACTTC
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	TCGACGGGCGAGACCTCGTCTGTGGCACACCTTCGGCCTCAGCACTTC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	TGGACGGTGAGGACCTGGTGGTGTGGCACACCTTTGGCCTGACTCACTTC
<i>Arthrobacter sp.</i> 31Y K253DRAFT Accession no: JAFW01000002.1	TGGACGGTGAGGACCTGGTGGTGTGGCACACCTTTGGCCTGACTCACTTC
<i>Arthrobacter sp.</i> M2012083 Accession no: NZ_AKKK01000062.1	TGGACGGTGAGGACCTGGTGGTGTGGCACACCTTTGGCCTGACTCACTTC

<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV0100006.1	TGGACGGTGAGGACCTGGTGGTGTGGCACACCTTTGGCCTGACTCACTTC
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	TGGACGGTGAGGACCTGGTGGTGTGGCACACCTTTGGCCTGACTCACTTC
<i>Brevibacterium linens</i> Accession no: CP014869.1	TCGACGGTGAGGAGATCGTGGTCTGGCACAGCTTCGGTCTCAGCACTTC
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	TCGACGGTGAGGAGATCGTGGTCTGGCACAGCTTCGGTCTCAGCACTTC
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	TCGACGGCGAGGACATCGTGTCTGGCATACTTCGGCCTCACCACCTTT
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	TCGACGGCGAGGACATCGTGTCTGGCATACTTCGGCCTCACCACCTTT
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	TCGACGGCGAGGACATCGTGTCTGGCATACTTCGGCCTCACCACCTTT
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	TCGACGGCGAGGACATCGTGTCTGGCATACTTCGGCCTCACCACCTTT
<i>Kocuria indica</i> Accession no: CP035504.1	TGGACGGCAGGACATCGTGGTGTGGCACACCTTCGGGCTCACCACCTTC
<i>Kocuria flava</i> Accession no: CP013254.1	TGGACGGCAGGACATCGTGGTGTGGCACACCTTCGGGCTCACCACCTTC
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	CTGATGGCGCCGACCTCGTGTCTGGCACACGTTCCGGACTCAGCACTTC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CTGATGGCGCCGACCTCGTGTCTGGCACACGTTCCGGACTCAGCACTTC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CTGATGGCGCCGACCTCGTGTCTGGCACACGTTCCGGACTCAGCACTTC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CTGATGGCGCCGACCTCGTGTCTGGCACACGTTCCGGACTCAGCACTTC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CTGATGGCGCCGACCTCGTGTCTGGCACACGTTCCGGACTCAGCACTTC
<i>Nocardiosis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	TGGACGGCCGAGCCTGGTGGTGTGGCACACCTTCGGCCTGACGACGCG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	TCGACGGCCAGGACATCGTCTCTGGCACACCTTCGGCCTCAGCACTTC
<i>PseudArthrobacter</i> sp. Accession no: CP041198.1	TCGACGGCCAGGACATCGTGGTGTGGCACACCTTTGGCCTGACCACCTTC
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	TCGACGGCCAGGACATCGTGGTGTGGCACACCTTTGGCCTGACCACCTTC
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	TGGAGAACGAAGACGTCGTGTCTGGCACACGTTTCGGCCTCAGCACTTC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	TGGAGAACGAAGACGTCGTGTCTGGCACACGTTTCGGCCTCAGCACTTC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	TGGAGAACGAAGACGTCGTGTCTGGCACACGTTTCGGCCTCAGCACTTC
<i>Rhodococcus wratislaviensis</i> Accession no:BHYM01000005.1	TGGAGAACGAAGACGTCGTGTCTGGCACACGTTTCGGCCTCAGCACTTC
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	TGGAGAACGAAGACGTCGTGTCTGGCACACGTTTCGGCCTCAGCACTTC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	TGGTGGACGAGGACGTCGTGTCTGGCACGTTTTTCGGCCCCACCACCTG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	TCGACGGGACCACCTCGTGTGTGGCACACGTTTCGGCCTGACCACCTTC
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	TGGACGGCCGGTCGCTCGTGTGTGGCACACCTTCGGCCTCAGCACGCA
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	TGGACGGCCGGTCGCTCGTGTGTGGCACACCTTCGGCCTCAGCACGCA
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	TGGACGGCCGGTCGCTCGTGTGTGGCACACCTTCGGCCTCAGCACGCA
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	TGGACGGCCGGTCGCTCGTGTGTGGCACACCTTCGGCCTCAGCACGCA
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	CCCCGCCGGAGGACTGGCCGATCATGCCGGTCGACTACACCGGCTTCAA
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	CCCCGCCGGAGGACTGGCCGATCATGCCGGTCGACTACACCGGCTTCAA
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	CCCCGCTTGAAAGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	CCCCGCTTGAAAGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	CCCCGCTTGAAAGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Arthrobacter</i> sp. EpRS71 Accession no: LNUV01000006.1	CCCCGCTTGAAAGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	CCCCGCTTGAAAGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Brevibacterium linens</i> Accession no: CP014869.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPRS01000047.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Kocuria indica</i> Accession no: CP035504.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Kocuria flava</i> Accession no: CP013254.1	CCGCGGTCGAGGACTGGCCGATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Microbacterium azadirachtae</i> Accession no: JYIX 01000018.1	CCGCGCCGGAGGACTGGCCCATCATGCCGGTCGACACCGGGCTTCGC
<i>Microbacterium oxydans</i> Accession no:CP031422.1	CCGCGCCGGAGGACTGGCCCATCATGCCGGTCGACACCGGGCTTCGC
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	CCGCGCCGGAGGACTGGCCCATCATGCCGGTCGACACCGGGCTTCGC
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	CCGCGCCGGAGGACTGGCCCATCATGCCGGTCGACACCGGGCTTCGC
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	CCGCGCCGGAGGACTGGCCCATCATGCCGGTCGACACCGGGCTTCGC
<i>Nocardiosis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	CCCCGCCGGAGGACTGGCCGATCATGCCGGTCGACACCGGCTTCAA
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	CCGCGGTCGAGGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA
<i>PseudArthrobacter</i> sp. Accession no: CP041198.1	CCGCGGTCGAGGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	CCGCGGTCGAGGACTGGCCCATCATGCCGGTCGACACCGTGGGCTTCAA

<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	CCGCGACCCGAGGACTGGCCGATCATGCCCGTCGACTACACCGGATTAC
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	CCGCGACCCGAGGACTGGCCGATCATGCCCGTCGACTACACCGGATTAC
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	CCGCGACCCGAGGACTGGCCGATCATGCCCGTCGACTACACCGGATTAC
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	CCGCGACCCGAGGACTGGCCGATCATGCCCGTCGACTACACCGGATTAC
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	CCGCGACCCGAGGACTGGCCGATCATGCCCGTCGACTACACCGGATTAC
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	CCCCGCCCGGAGGACTGGCCGGTCATGCCCGTCGATTACAGCGGATTACAT
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	CCGCGCCCGGAGGACTGGCCCATCATGCCCGTGGACCACGTGGGCTTCAA
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	CCCCGGCCGGAGGACTGGCCGATCATGCCCGTCGACCACACGGGCTTCAA
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	CCCCGGCCGGAGGACTGGCCGATCATGCCCGTCGACCACACGGGCTTCAA
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	CCCCGGCCGGAGGACTGGCCGATCATGCCCGTCGACCACACGGGCTTCAA
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	CCCCGGCCGGAGGACTGGCCGATCATGCCCGTCGACCACACGGGCTTCAA
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<i>Amycolatopsis thermoflava</i> N1165 Accession no: NZ_KI421511.1	GCTCAAACCCGGTCGGGTTCTTCGACCGCAACCCCGCCCTCGACGTGCCGC
<i>Amycolatopsis japonica</i> strain MG417-CF17 Accession no: CP008953.1	GCTCAAACCCGGTCGGGTTCTTCGACCGCAACCCCGCCCTCGACGTGCCGC
<i>Arthrobacter alpinus</i> ERGS4 Accession no: CP013200.1	GCTCCGCCCGAGGGGTTCTTTGACCGCAGCCCGTCTGGACGTGCCAG
<i>Arthrobacter</i> sp. 31Y K253DRAFT Accession no: JAFW01000002.1	GCTCCGCCCGAGGGGTTCTTTGACCGCAGCCCGTCTGGACGTGCCAG
<i>Arthrobacter</i> sp. M2012083 Accession no: NZ_AKKK01000062.1	GCTCCGCCCGAGGGGTTCTTTGACCGCAGCCCGTCTGGACGTGCCAG
<i>Arthrobacter</i> sp. EPRS71 Accession no: LNUV01000006.1	GCTCCGCCCGAGGGGTTCTTTGACCGCAGCCCGTCTGGACGTGCCAG
<i>Arthrobacter crystallopoietes</i> Accession no: AB240436.1	GCTCCGCCCGAGGGGTTCTTTGACCGCAGCCCGTCTGGACGTGCCAG
<i>Brevibacterium linens</i> Accession no: CP014869.1	GCTGCGCCCGAAGGATTCCTTCGACCGCTCCCTGTCTCGACGTCCCT
<i>Brevibacterium</i> sp. YB235 Accession no: CP050153.1	GCTGCGCCCGAAGGATTCCTTCGACCGCTCCCTGTCTCGACGTCCCT
<i>Cryobacterium flavum</i> strain Hh8 Accession no: SOFD01000024.1	GCTGCGCCCGACGGTTCCTTCGACCGCAGCCAGTCTGGACGTCCCG
<i>Cryobacterium</i> sp. MLB32 c47 Accession no: JPERS01000047.1	GCTGCGCCCGACGGTTCCTTCGACCGCAGCCAGTCTGGACGTCCCG
<i>Cryobacterium luteum</i> strain Hh15 Accession no: SOFF01000030.1	GCTGCGCCCGACGGTTCCTTCGACCGCAGCCAGTCTGGACGTCCCG
<i>Cryobacterium roopkundense</i> Accession no: JPXF01000060.1	GCTGCGCCCGACGGTTCCTTCGACCGCAGCCAGTCTGGACGTCCCG
<i>Kocuria indica</i> Accession no: CP035504.1	GCTGCGCCCGAGGGTTCCTTCGACCGCTCCCGGTCTGGACGTCCCG
<i>Kocuria flava</i> Accession no: CP013254.1	GCTGCGCCCGAGGGTTCCTTCGACCGCTCCCGGTCTGGACGTCCCG
<i>Microbacterium azadirachtae</i> Accession no: JYIX_01000018.1	GTTCGCCCTACGGTTCCTTCGACCGAACCAGGGCATGGACGTGCCG
<i>Microbacterium oxydans</i> Accession no: CP031422.1	GTTCGCCCTACGGTTCCTTCGACCGAACCAGGGCATGGACGTGCCG
<i>Microbacterium trichothecenolyticum</i> Accession no: JYJA01000039.1	GTTCGCCCTACGGTTCCTTCGACCGAACCAGGGCATGGACGTGCCG
<i>Microbacterium foliorum</i> Accession no: JYIU01000019.1	GTTCGCCCTACGGTTCCTTCGACCGAACCAGGGCATGGACGTGCCG
<i>Microbacterium mangrove</i> Accession no: JTDK01000001.1	GTTCGCCCTACGGTTCCTTCGACCGAACCAGGGCATGGACGTGCCG
<i>Nocardiosis</i> sp. NRRL B-16309 Accession no: LGEC01000081.1	GCTGCGCCCGTTCGGTTCCTTCGACCGCAACCCACCCTGGACGTCCCG
<i>Paenarthrobacter aurescens</i> Accession no: CP000474.1	ACTCGTCCGGAAGGCTTCCTTTGACCGCAGCCCGTCTGGACGTCCCG
<i>Pseudarthrobacter</i> sp. Accession no: CP041198.1	GCTCCGCCAGAGGGTTCCTTCGACCGCAGCCCGTCTGGACGTCCCG
<i>Pseudarthrobacter chlorophenolicus</i> A6 Accession no: CP001341.1	GCTCCGCCAGAGGGTTCCTTCGACCGCAGCCCGTCTGGACGTCCCG
<i>Rhodococcus jostii</i> RHA1 Accession no: CP000431.1	GTTGAAGCCCAACGGTTCCTTCGATCGCAACCCCGTCTCGACGTCCCG
<i>Rhodococcus opacus</i> 1CP Accession no: CP009111.1	GTTGAAGCCCAACGGTTCCTTCGATCGCAACCCCGTCTCGACGTCCCG
<i>Rhodococcus ruber</i> Accession no: CCSD01000085.1	GTTGAAGCCCAACGGTTCCTTCGATCGCAACCCCGTCTCGACGTCCCG
<i>Rhodococcus wratislaviensis</i> Accession no: BHYM01000005.1	GTTGAAGCCCAACGGTTCCTTCGATCGCAACCCCGTCTCGACGTCCCG
<i>Rhodococcus</i> sp.SC4 SC4 Accession no: LSBM01000283.1	GTTGAAGCCCAACGGTTCCTTCGATCGCAACCCCGTCTCGACGTCCCG
<i>Saccharothrix espanaensis</i> Accession no: He804045.1	GTTCAAGCCGCTGGATTCCTGGACCGCAATCCACGCTCGACGTCCCG
<i>Sinomonas atrocyanea</i> Accession no: CP014518.1	GATCCGCCCGAGGGTTCCTTCGACCGCAGCCCGTCTCGACGTCCCG
<i>Streptomyces ossamyceticus</i> Accession no: NZ_RJKY01000001.1	GCTCACCCCGACCGGTTCTTCGACCGCAACCCGACGTTGGACGTCCCG
<i>Streptomyces fulvoviolaceus</i> Accession no: NZ_JOEY01000080.1	GCTCACCCCGACCGGTTCTTCGACCGCAACCCGACGTTGGACGTCCCG
<i>Streptomyces torulosus</i> Accession no: NZ_LIRK01000041.1	GCTCACCCCGACCGGTTCTTCGACCGCAACCCGACGTTGGACGTCCCG
<i>Streptomyces xylophagus</i> Accession no: NZ_JNW001000006.1	GCTCACCCCGACCGGTTCTTCGACCGCAACCCGACGTTGGACGTCCCG
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