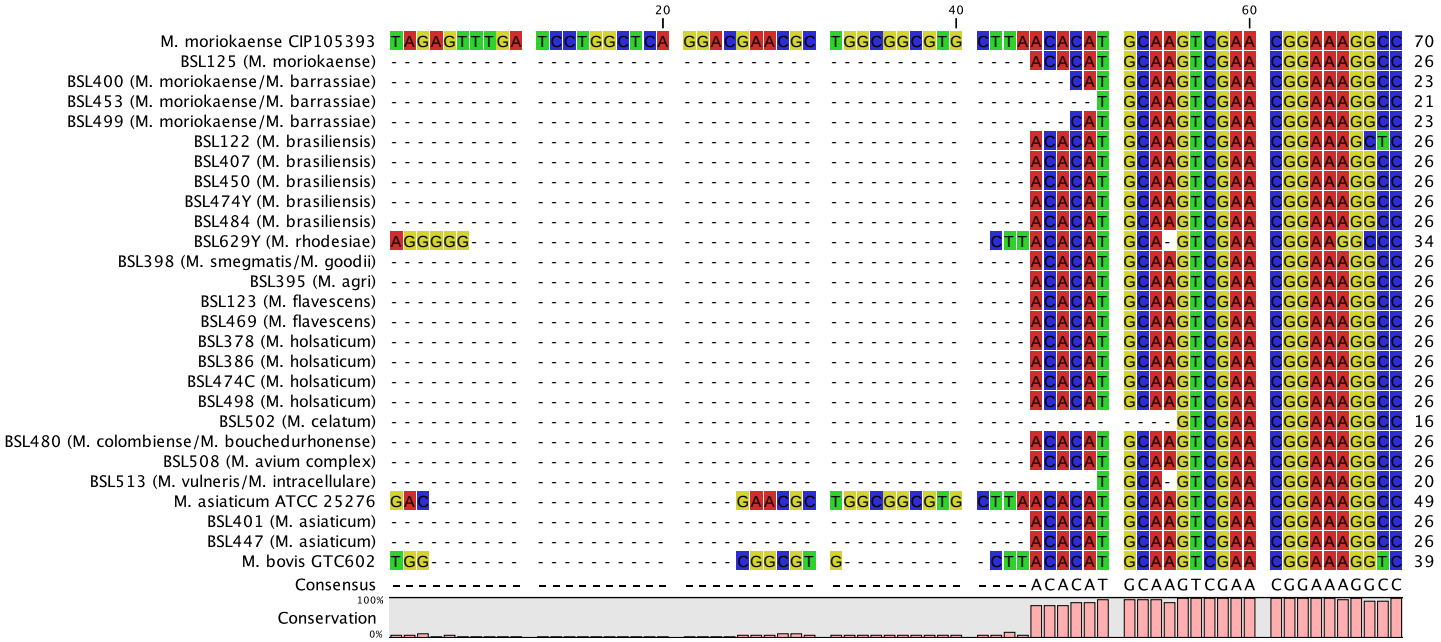
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BSL502 (M. celatum) GTCGAA CGGAAAGGCC 16
BSL480 (M. colombiense/M. bouchedurhonense) ACACAT GCAAGTCGAA CGGAAAGGCC 26
BSL508 (M. avium complex) ACACAT GCAAGTCGAA CGGAAAGGCC 26
BSL513 (M. vulneris/M. intracellulare) T GCA GTCGAA CGGAAAGGCC 20
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BSL447 (M. asiaticum) ACACAT GCAAGTCGAA CGGAAAGGCC 26
M. bovis GTC602 TGG CGGCGT G CTTACACAT GCAAGTCGAA CGGAAAGGTC 39
Consensus ACACAT GCAAGTCGAA CGGAAAGGCC
100%
Conservation
0%

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BSL447 (M. asiaticum)                     CCTTC--GGG GGTACTCGAG TGGCGAACGG GTGAGTAACA CGTGGGTGAT CTGCCCTGCA CTTCGGGATA 94
M. bovis GTC602                           TCTTC--GGA GATACTCGNG TGGCGAACGG GTGAGTAACA CGTGGGTGAT CTGCCCTGCA CTTCGGGATA 107
Consensus                                 CTTTC--GGG GGTACTCGAG TGGCGAACGG GTGAGTAACA CGTGGGTGAT CTGCCCTGCA CTTTGGGATA
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Conservation
0%
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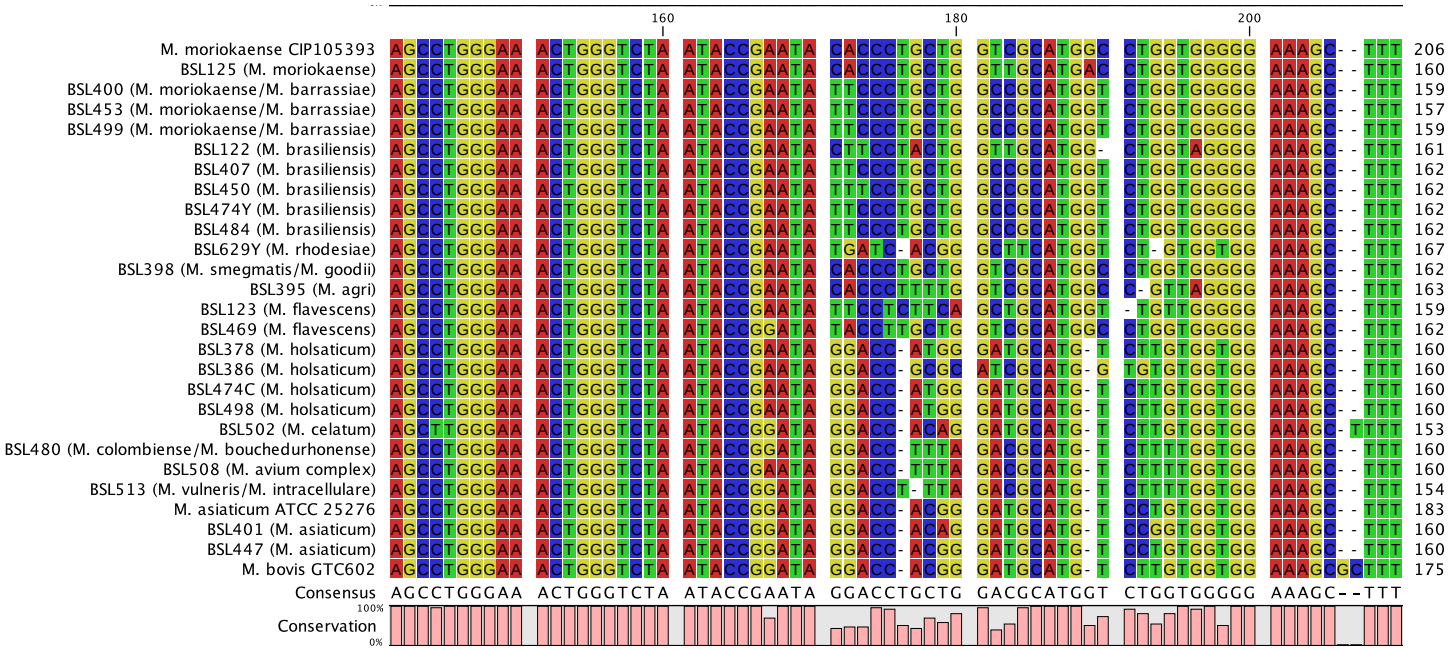
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Conservation
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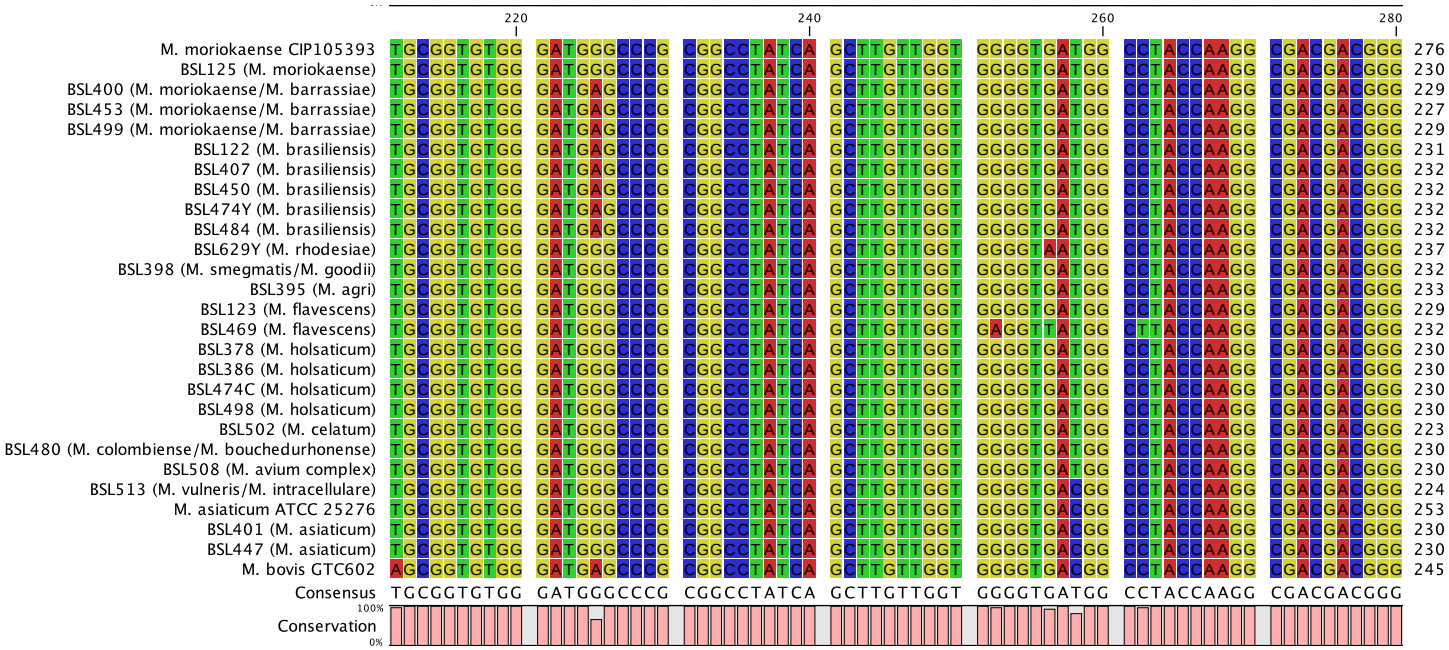
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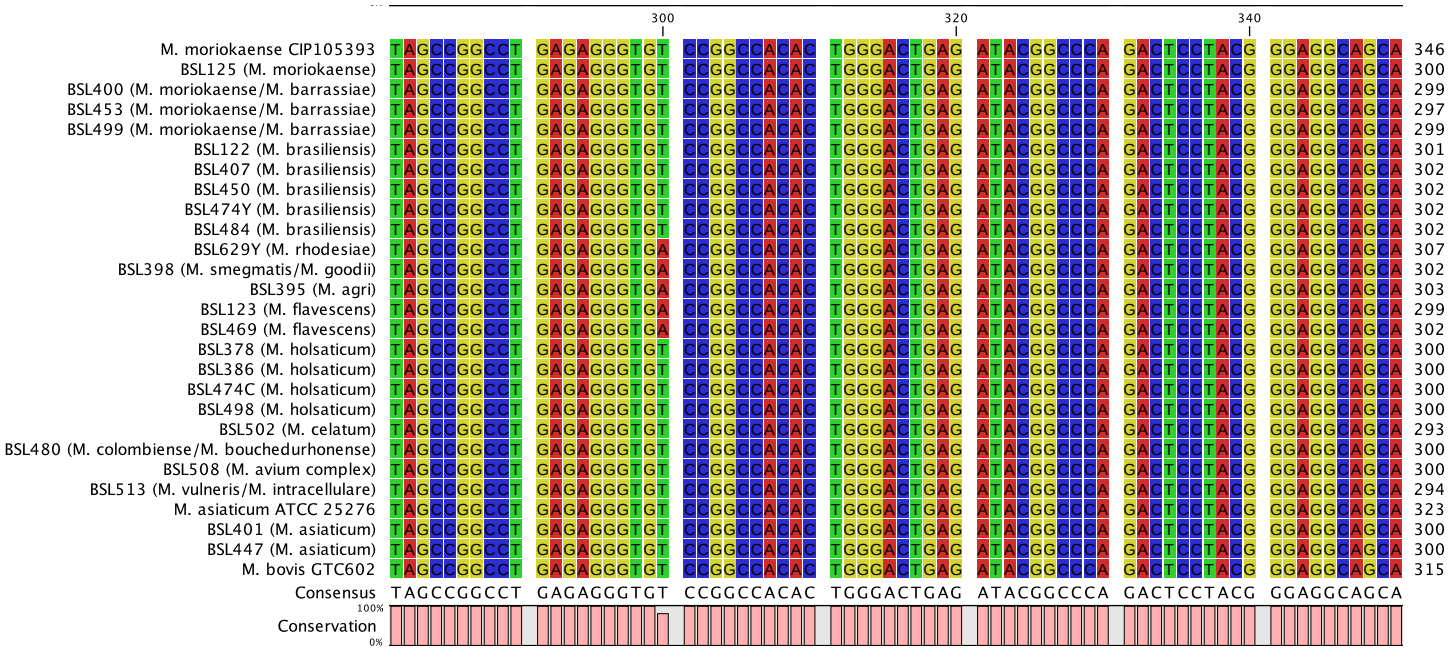
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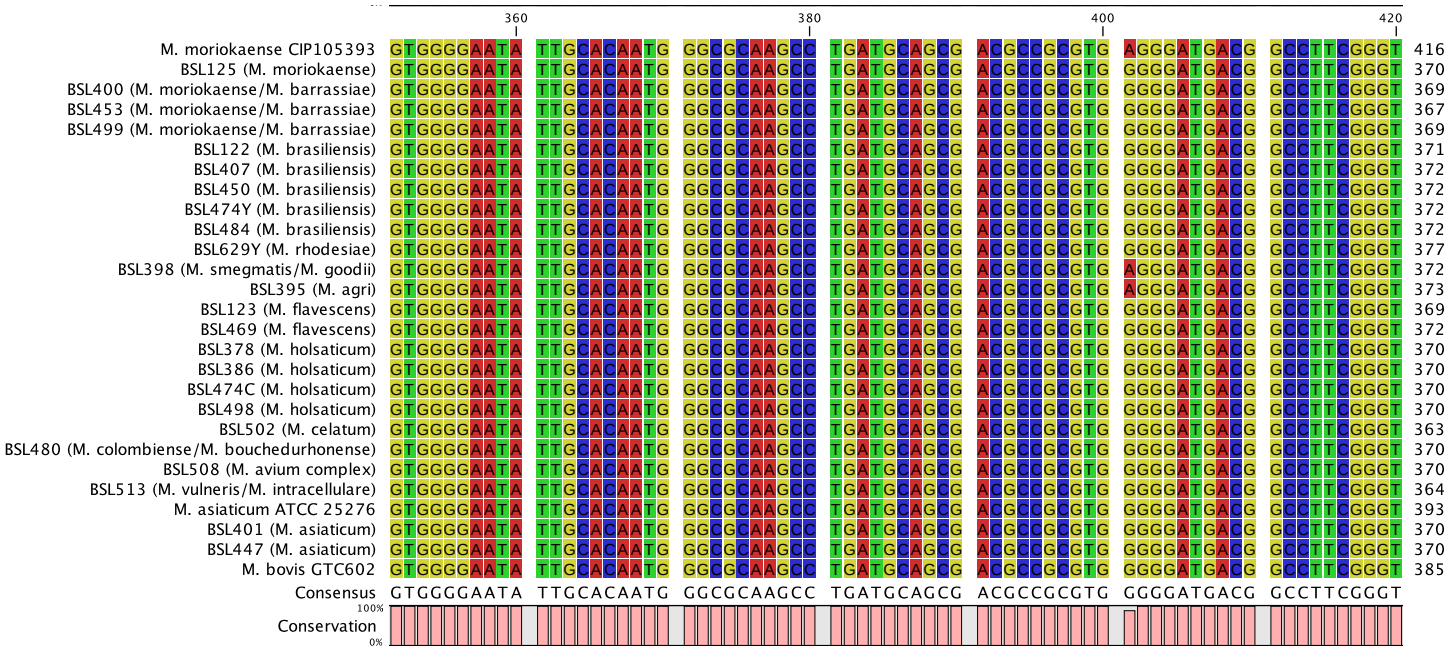
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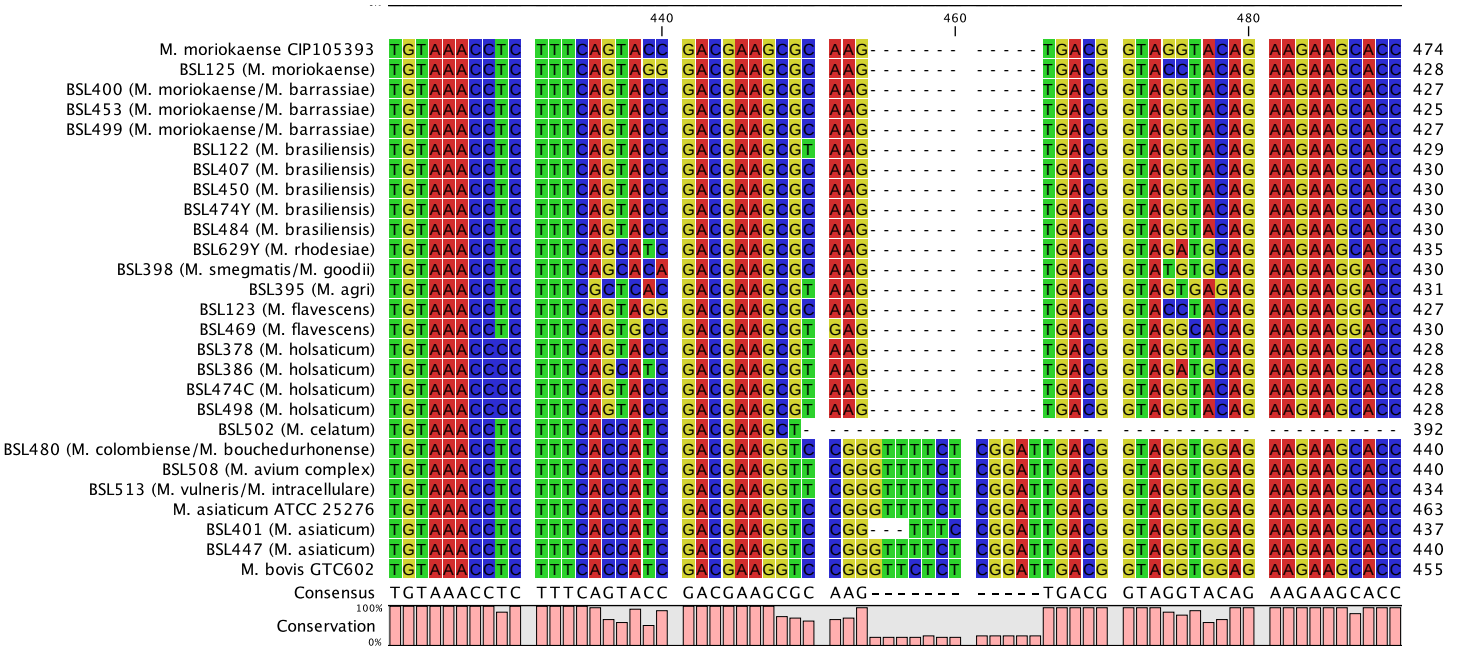
BSL386 (M. holsaticum) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 370
BSL474C (M. holsaticum) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 370
BSL498 (M. holsaticum) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 370
BSL502 (M. celatum) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 363
BSL480 (M. colombiense/M. bouchedurhonense) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 370
BSL508 (M. avium complex) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 370
BSL513 (M. vulneris/M. intracellulare) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 364
M. asiaticum ATCC 25276 GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 393
BSL401 (M. asiaticum) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 370
BSL447 (M. asiaticum) GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 370
M. bovis GTC602 GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT 385
Consensus GTGGGGAATA TTGCACAATG GGCGCAAGCC TGATGCAGCG ACGCCGCGTG GGGGATGACG GCCTTCGGGT
100%
Conservation
0%


440
460
480
M. moriokaense CIP105393 TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 474
BSL125 (M. moriokaense) TGTAAACCTC TTTCAGTAGG GACGAAGCGC AAG------- -----TGACG GTACCTACAG AAGAAGCACC 428
BSL400 (M. moriokaense/M. barrassiae) TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 427
BSL453 (M. moriokaense/M. barrassiae) TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 425
BSL499 (M. moriokaense/M. barrassiae) TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 427
BSL122 (M. brasiliensis) TGTAAACCTC TTTCAGTACC GACGAAGCGT AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 429
BSL407 (M. brasiliensis) TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 430
BSL450 (M. brasiliensis) TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 430
BSL474Y (M. brasiliensis) TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 430
BSL484 (M. brasiliensis) TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 430
BSL629Y (M. rhodesiae) TGTAAACCTC TTTCAGCATC GACGAAGCGC AAG------- -----TGACG GTAGATGCAG AAGAAGCACC 435
BSL398 (M. smegmatis/M. goodii) TGTAAACCTC TTTCAGCACA GACGAAGCGC AAG------- -----TGACG GTATGTGCAG AAGAAGGACC 430
BSL395 (M. agri) TGTAAACCTC TTTCGCTCAC GACGAAGCGT AAG------- -----TGACG GTAGTGAGAG AAGAAGGACC 431
BSL123 (M. flavescens) TGTAAACCTC TTTCAGTAGG GACGAAGCGC AAG------- -----TGACG GTACCTACAG AAGAAGGACC 427
BSL469 (M. flavescens) TGTAAACCTC TTTCAGTGCC GACGAAGCGT GAG------- -----TGACG GTAGGCACAG AAGAAGGACC 430
BSL378 (M. holsaticum) TGTAAACCCC TTTCAGTACC GACGAAGCGT AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 428
BSL386 (M. holsaticum) TGTAAACCCC TTTCAGCATC GACGAAGCGT AAG------- -----TGACG GTAGATGCAG AAGAAGCACC 428
BSL474C (M. holsaticum) TGTAAACCCC TTTCAGTACC GACGAAGCGT AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 428
BSL498 (M. holsaticum) TGTAAACCCC TTTCAGTACC GACGAAGCGT AAG------- -----TGACG GTAGGTACAG AAGAAGCACC 428
BSL502 (M. celatum) TGTAAACCTC TTTCACCATC GACGAAGCT- ---------- ---------- ---------- ---------- 392
BSL480 (M. colombiense/M. bouchedurhonense) TGTAAACCTC TTTCACCATC GACGAAGGTC CGGGTTTTCT CGGATTGACG GTAGGTGGAG AAGAAGCACC 440
BSL508 (M. avium complex) TGTAAACCTC TTTCACCATC GACGAAGGTT CGGGTTTTCT CGGATTGACG GTAGGTGGAG AAGAAGCACC 440
BSL513 (M. vulneris/M. intracellulare) TGTAAACCTC TTTCACCATC GACGAAGGTT CGGGTTTTCT CGGATTGACG GTAGGTGGAG AAGAAGCACC 434
M. asiaticum ATCC 25276 TGTAAACCTC TTTCACCATC GACGAAGGTC CGGGTTTTCT CGGATTGACG GTAGGTGGAG AAGAAGCACC 463
BSL401 (M. asiaticum) TGTAAACCTC TTTCACCATC GACGAAGGTC CGG---TTTC CGGATTGACG GTAGGTGGAG AAGAAGCACC 437
BSL447 (M. asiaticum) TGTAAACCTC TTTCACCATC GACGAAGGTC CGGGTTTTCT CGGATTGACG GTAGGTGGAG AAGAAGCACC 440
M. bovis GTC602 TGTAAACCTC TTTCACCATC GACGAAGGTC CGGGTTCTCT CGGATTGACG GTAGGTGGAG AAGAAGCACC 455
Consensus TGTAAACCTC TTTCAGTACC GACGAAGCGC AAG------- -----TGACG GTAGGTACAG AAGAAGCACC
100%
Conservation
0%

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                                          500       520       540       560
M. moriokaense CIP105393                  GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 544
BSL125 (M. moriokaense)                   GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 498
BSL400 (M. moriokaense/M. barrassiae)     GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 497
BSL453 (M. moriokaense/M. barrassiae)     GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 495
BSL499 (M. moriokaense/M. barrassiae)     GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 497
BSL122 (M. brasiliensis)                  GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 499
BSL407 (M. brasiliensis)                  GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 500
BSL450 (M. brasiliensis)                  GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 500
BSL474Y (M. brasiliensis)                 GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 500
BSL484 (M. brasiliensis)                  GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAG------ ---------- ---------- 474
BSL629Y (M. rhodesiae)                    GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 505
BSL398 (M. smegmatis/M. goodii)           GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTC CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 500
BSL395 (M. agri)                          GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTC CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 501
BSL123 (M. flavescens)                    GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTC CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 497
BSL469 (M. flavescens)                    GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTC CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 500
BSL378 (M. holsaticum)                    GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 498
BSL386 (M. holsaticum)                    GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 498
BSL474C (M. holsaticum)                   GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGT--- ---------- ---------- 475
BSL498 (M. holsaticum)                    GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 498
BSL502 (M. celatum)                       ---------- ---------- -----GCCCT TTGTGGGG-- ---------- ---------- ---------- 405
BSL480 (M. colombiense/M. bouchedurhonense) GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 510
BSL508 (M. avium complex)                 GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 510
BSL513 (M. vulneris/M. intracellulare)    GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 504
M. asiaticum ATCC 25276                   GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 533
BSL401 (M. asiaticum)                     GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 507
BSL447 (M. asiaticum)                     GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 510
M. bovis GTC602                           GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA 525
Consensus                                 GGCCAACTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGGTG CGAGCGTTGT CCGGAATTAC TGGGCGTAAA
Conservation                              100%
                                          0%
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                                                   580                                 600
                                                    |                                   |
M. moriokaense CIP105393          GAGCTCGTAG GTGGTTTGTC GCGTTGTTCG TGA------- ---------- -- 577
BSL125 (M. moriokaense)           GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 512
BSL400 (M. moriokaense/M. barrassiae) GAGCTCTTAG ---------- ---------- ---------- ---------- -- 507
BSL453 (M. moriokaense/M. barrassiae) GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 509
BSL499 (M. moriokaense/M. barrassiae) GAGCTCTTAG ---------- ---------- ---------- ---------- -- 507
BSL122 (M. brasiliensis)          GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 513
BSL407 (M. brasiliensis)          GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 514
BSL450 (M. brasiliensis)          GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 514
BSL474Y (M. brasiliensis)         GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 514
BSL484 (M. brasiliensis)          ---------- ---------- ---------- ---------- ---------- -- 474
BSL629Y (M. rhodesiae)            GAGCTCTTAG GTGGTTT--- ---------- ---------- -----TGTCG MA 529
BSL398 (M. smegmatis/M. goodii)   GAGCTCTTAG GTG------- ---------- ---------- ---------- -- 513
BSL395 (M. agri)                  GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 515
BSL123 (M. flavescens)            GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 511
BSL469 (M. flavescens)            GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 514
BSL378 (M. holsaticum)            GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 512
BSL386 (M. holsaticum)            GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 512
BSL474C (M. holsaticum)           ---------- ---------- ---------- ---------- ---------- -- 475
BSL498 (M. holsaticum)            GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 512
BSL502 (M. celatum)               ---------- ---------- ---------- ---------- ---------- -- 405
BSL480 (M. colombiense/M. bouchedurhonense) GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 524
BSL508 (M. avium complex)         GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 524
BSL513 (M. vulneris/M. intracellulare) GAGCTCTTAG GTGGTTTGTC ---------- ---------- ---------- -- 524
M. asiaticum ATCC 25276           GAGCTCGTAG GTGGTTTGTC GCGTTGTTCG TGAAAATCTCA CGGC------ -- 577
BSL401 (M. asiaticum)             GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 521
BSL447 (M. asiaticum)             GAGCTCTTAG GTGG------ ---------- ---------- ---------- -- 524
M. bovis GTC602                   GAGCTCGTAG GTGGTTTGTC GCGTTGTTCG TGAAAATCTCA CGGCTTAACT GT 577
Consensus                         GAGCTCTTAG GTGG------ ---------- ---------- ---------- --
                                  100%
Conservation                      0%
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