```
                                 (((((((..(((.............))).(((((.......)))))..(((((.......)))))
chr-2.trna38-Ser-TGA             GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-13.trna181-Ser-TGA           GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-5.trna517-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-12.trna259-Ser-TGA           GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-6.trna34-Ser-TGA             GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-12.trna344-Ser-TGA           GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-6.trna725-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-6.trna778-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-9.trna566-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-9.trna101-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-9.trna340-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-9.trna352-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-4.trna526-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-4.trna423-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGGGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-1.trna464-Ser-TGA            GGAUGGAUGCCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-11.trna415-Ser-TGA           GGAUGGAUGUCUAAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-12.trna93-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCAGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-4.trna112-Ser-TGA            GGAUGAAUGUCUGAGU-GGUUGAAAGAGUCGGUCUUGAAAACCAAAGUAUUGAUAGG-AA 58
chr-6.trna707-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-7.trna625-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCAAAGUAUUGAUAGG-AA 58
chr-4.trna591-Ser-TGA            GGAUGUAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-4.trna116-Ser-TGA            GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-8.trna368-Ser-TGA            GGAUGGAUGUAUGAGC-GGUUGAAAGAGUUGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-8.trna211-Ser-TGA            GGAUGGAUGUCUGAGC-GAUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-5.trna127-Ser-TGA            GGAUGGAUGCCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGG-AA 58
chr-12.trna271-Ser-TGA           GGAUGGAUGUCUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACCGAAGUAUUGAUAGA-AA 58
chr-12.trna397-Ser-TGA           GGAUGGAUGUUUGAGC-GGUUGAAAGAGUCGGUCUUGAAAACUGAAGUAUUGAUAGG-AA 58
chr-8.trna350-Ser-TGA            GGAGAGAUGGCUGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGCUAUAGUUCUAGGAAC 59
chr-7.trna463-Ser-TGA            GGAGAGAUGGCUGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 59
chr-10.trna438-Ser-TGA           GGAGAGAUGGCUGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 59
chr-13.trna238-Ser-TGA           GGAGAGAUGGCUGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 59
chr-14.trna60-Ser-TGA            GGAGAGAUGGCUGAGU-GGUUUAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 59
chr-2.trna112-Ser-TGA            GGAGAGAUGG-UGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 58
chr-2.trna159-Ser-TGA            GGAGAGAUGG-UGAGU-GGUUGAUAACUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 58
chr-14.trna220-Ser-TGA           GGAGAGAUGG-UGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 58
chr-12.trna351-Ser-TGA           GGAGAGAUGG-UGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 58
chr-6.trna86-Ser-TGA             GGAGAGAUGG-UGAGU-GGUUGAUAGCUUCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 58
chr-7.trna127-Ser-TGA            GGAGAGAUGGAUGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUGUAGGAAC 59
chr-3.trna605-Ser-TGA            -GAGAUG--GCUGAGU-GGUUGAUAGCUCCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 56
chr-9.trna467-Ser-TGA            GAAGAGAUGGCUGAGU-GGUUGAUAGCUUCGGUCUUGAAAACCGGUAUAGUUCUAGGAAC 59
chr-1.trna532-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UUCG 52
chr-1.trna533-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UUCG 52
chr-8.trna196-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UUCG 52
chr-1.trna7-Ser-TGA              GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UUCG 52
chr-7.trna30-Ser-TGA             GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UUCG 52
chr-1.trna496-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-1.trna8-Ser-TGA              GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-10.trna472-Ser-TGA           GUCGACAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-2.trna8-Ser-TGA              GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-2.trna9-Ser-TGA              GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-2.trna584-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-2.trna585-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-3.trna29-Ser-TGA             GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-5.trna658-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-4.trna621-Ser-TGA            GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-9.trna510-Ser-TGA            GUCGAUAUGUCCGAGU-GCUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-2.trna61-Ser-TGA             GUCGAUAUGUCCGAGU-AGUU-AAGGAGAUAGACUUGAAAUCUGUUGGGC------UACG 52
chr-7.trna244-Ser-TGA            GUCGAUAUGUCUGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGC------UACG 52
chr-8.trna50-Ser-TGA             GUCGAUAUGUCCGAGU-GGUU-AAGGAGACAGACUUGAAAUCUGUUGGGCUACGCCUACG 58
chr-7.trna229-Ser-TGA            UGAGGUGUAGCGUAGUCUGGUCAACUCAUCUGUUAUGAGUACAGAGGGC---------- 49
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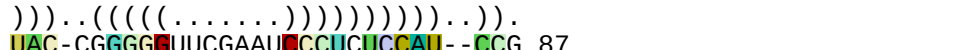

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                                 ))).(((((.......)))))))))..)).
chr-2.trna38-Ser-TGA             UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-13.trna181-Ser-TGA           UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-5.trna517-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-12.trna259-Ser-TGA           UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-6.trna34-Ser-TGA             UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-12.trna344-Ser-TGA           UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-6.trna725-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-6.trna778-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-9.trna566-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-9.trna101-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-9.trna340-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-9.trna352-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-4.trna526-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-4.trna423-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-1.trna464-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUUCAU--CCG 87
chr-11.trna415-Ser-TGA           UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-12.trna93-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-4.trna112-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-6.trna707-Ser-TGA            UAC-UGGGGGUUCGAAUCCCUCACCGU--CCG 87
chr-7.trna625-Ser-TGA            UAC-CGGGGGUUCAAAUCCCUCUCCAU--CCG 87
chr-4.trna591-Ser-TGA            UAC-CGGGGGUUUGAAUCCUUCUCCAU--CCG 87
chr-4.trna116-Ser-TGA            UAC-CAAGGGUUCGAAUCCCUCUCCAU--CAA 87
chr-8.trna368-Ser-TGA            UAC-CGGAGGUUCGAAUCCCUCUCCAU--CCG 87
chr-8.trna211-Ser-TGA            UAC-CGGGGGUUCGAAUCCCUCUCCAU--CCG 87
chr-5.trna127-Ser-TGA            UAA-CGGGGGUUUGAUUCCCUCUCCAU--CUG 87
chr-12.trna271-Ser-TGA           UAC-CCAG-GUUCGAAUCCCUCUCCAU--CCG 86
chr-12.trna397-Ser-TGA           UAC------GUUCGAAUCCCUCUCCAU--CCG 82
chr-8.trna350-Ser-TGA            UAU-CGAGGGUUUGAAUCCCUCUCUCU--CCU 88
chr-7.trna463-Ser-TGA            UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 88
chr-10.trna438-Ser-TGA           UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 88
chr-13.trna238-Ser-TGA           UAU-UGAGGGUUCGAAUCCCUCUCUCU--CCU 88
chr-14.trna60-Ser-TGA            UGU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 88
chr-2.trna112-Ser-TGA            UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 87
chr-2.trna159-Ser-TGA            UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 87
chr-14.trna220-Ser-TGA           UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 87
chr-12.trna351-Ser-TGA           UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 87
chr-6.trna86-Ser-TGA             UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 87
chr-7.trna127-Ser-TGA            UAU-CGAGGGUUCGAAUCCCUCUCUCU--CCU 88
chr-3.trna605-Ser-TGA            UAU-CGAGGGUUCGAAUCCCUCUAUCU--CCU 85
chr-9.trna467-Ser-TGA            UAU-CGAGGGUUCAAAUCCCUCUCUCUCUCCCU 90
chr-1.trna532-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-1.trna533-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-8.trna196-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-1.trna7-Ser-TGA              CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-7.trna30-Ser-TGA             CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-1.trna496-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUUG--ACG 82
chr-1.trna8-Ser-TGA              CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-10.trna472-Ser-TGA           CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-2.trna8-Ser-TGA              CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-2.trna9-Ser-TGA              CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-2.trna584-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-2.trna585-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-3.trna29-Ser-TGA             CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-5.trna658-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-4.trna621-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-9.trna510-Ser-TGA            CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-2.trna61-Ser-TGA             CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 82
chr-7.trna244-Ser-TGA            CCCACGCAGGUUCGAUCCCUGCUGUUG--ACG 82
chr-8.trna50-Ser-TGA             CCCGCGCAGGUUCGAUCCCUGCUGUCG--ACG 88
chr-7.trna229-Ser-TGA            ----CAUAGGUUCGAAUCUUGUCACCU--UGA 75
                                 .........70........80........90.
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