```
                                ((..(((.....((..(((.........)))(((((.......)))))).....(((((
chr-4.trna29-Pro-AGG        GG--GCA-----UUUGGUCUAGUAGU-AUGAUUCUCGAUUAGGGUGCGAGAGGUCCCGAG 52
chr-6.trna59-Pro-AGG        GG--GCA-----UUUGGUCUAGUAGU-AUGAUUCUCGAUUAGGGUGCGAGAGGUCCCGAG 52
chr-16.trna48-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCACUUAGGGUGCGAGAGGUCCCGAG 52
chr-14.trna65-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCUGAG 52
chr-16.trna46-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCUGAG 52
chr-13.trna10-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-16.trna55-Pro-AGG       GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-4.trna37-Pro-AGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGUGAGAGGUCCCGAG 52
chr-3.trna16-Pro-AGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-24.trna42-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-1.trna28-Pro-AGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-5.trna69-Pro-AGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-22.trna10-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-20.trna7-Pro-AGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-10.trna86-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-19.trna107-Pro-AGG      GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-24.trna32-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-11.trna8-Pro-AGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-12.trna13-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-18.trna59-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-14.trna9-Pro-AGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-24.trna37-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-17.trna42-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCCGAG 52
chr-4.trna39-Pro-TGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-14.trna25-Pro-TGG       GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-24.trna36-Pro-CGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUCGGGUGCGAGAGGUCCCGAG 52
chr-14.trna10-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGAGGCCCCGAG 52
chr-24.trna35-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGGUGCGAGUGGUCCCGAG 52
chr-1.trna29-Pro-TGG        GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-3.trna31-Pro-TGG        GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-10.trna62-Pro-TGG       GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-16.trna35-Pro-TGG       GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-19.trna68-Pro-TGG       GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-20.trna64-Pro-TGG       GG--GCG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-4.trna38-Pro-TGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-24.trna41-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-24.trna44-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-24.trna34-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-24.trna38-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-24.trna43-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-23.trna16-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-23.trna15-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-20.trna8-Pro-TGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-24.trna33-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGUGAGAGGUCCCGAG 52
chr-5.trna74-Pro-TGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCUCGAG 52
chr-5.trna1-Pro-CGG         GG--GUG-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUCGGGUGCGAGAGGUCGCGAG 52
chr-20.trna6-Pro-CGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUCGGGUGCGAGAGGUCCCGAG 52
chr-5.trna71-Pro-CGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUCGGGUGCGAGAGGUCCUGAG 52
chr-13.trna48-Pro-TGG       GG--GCG-----UUUAGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-5.trna73-Pro-TGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCUGAG 52
chr-18.trna46-Pro-TGG       GG--GCG-----UUUGGCCUAGUGGU-AUGAUUCUCGCUUUGGGUGCAAGAGGUCCCGAG 52
chr-22.trna5-Pro-TGG        GG--GCG-----UUUGAUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCUGAG 52
chr-8.trna38-Pro-TGG        GG--GCG-----UUUGGUCUAGUGGU-AUGAUUUUUGCUUUGGGUGCGAGAGGUUACGAG 52
chr-12.trna12-Pro-CGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUCGGGUGCGAGAGGUCCCAAA 52
chr-5.trna72-Pro-TGG        GA--GCA-----UUUGGUUUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-18.trna60-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGUUUAGGGUGCCAGAGGUCCCGAG 52
chr-5.trna70-Pro-CGG        GG--GCA-----UUUGGUCUACUGGU-AUGAUUUUCGCUUCGGGUGCGAAGG-UCCCGAG 51
chr-13.trna40-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUAGGAUGCGAGAGGUCCCG-G 51
chr-24.trna40-Pro-TGG       GG--GCA-----UUUGGUGUAGUGGU-AUGAUUCUUGCUUUGGGUACAAGAGGUCCCGAG 52
chr-11.trna29-Pro-TGG       GG--GUG-----UUUGGUUUAGUGGU-AUGAUACUCACUUUGGGUGCGAGAGGUCCCGAG 52
chr-12.trna14-Pro-TGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGGUGCGAGAGGUCCCGAG 52
chr-23.trna14-Pro-AGG       GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCAAGCUUAGGGUGCGAGAGGUC-UGAG 51
chr-11.trna9-Pro-AGG        GG--GCA-----UUUGGUCUACGGGU-AUGAUUCUCGCUUAGGGUG-GAGACGUCCCGAG 51
chr-18.trna6-Pro-TGG        AG-UGUA-----UUUGGUCUAGUGGU-AUGAUUCUCGCUUUGGAUGCGAGAAGUCCCGAG 53
chr-18.trna8-Pro-CGG        GG--GCA-----UUUGGUCUAGUGGU-AUGAUUCUUGCUUCGGAUGCGAGAAGUCCUGAG 52
chr-2.trna46-Pro-AGG        AAAUGUAGGGCAUUUGGUCUAGUCGU-AUGAUUCUCGCUUAGGGUGCGAGAGGUCCUGAG 59
chr-20.trna31-Pro-TGG       AGG--GAU---GUAGCACAGUUUGGU-AGCGCGUUUGUUUUGGGUACAAAUUAUCACAGG 54
chr-4.trna59-Pro-TGG        AGG--GAU---GUAGCAUAGCUUGGU-AGCGCGUUUGUUUUGGGUACAAAAUGUCACGGG 54
chr-19.trna55-Pro-TGG       AGG--GAU---GUAGCACAGCUUGGU-AGCACGUUUGUUUUGGGUACAAAAUGUCACGGG 54
chr-17.trna47-Pro-TGG       ACG--GAU---GUAGCACAGCUUGGU-AGUGCAUUUGUUUUGGGUACAAAAUGUCACGGG 54
chr-2.trna63-Pro-TGG        AGG--GAU---GUAGCGCAGCUUGGU-AGUGCAUUUGUUUUGGGUACAAAAUGUCACGGG 54
chr-2.trna9-Pro-TGG         AGG--GAU---AUAGCGUAGCUUGGU-AGCACGUUUGUUUUGGGUACAAAAUGUCACGGG 54
chr-6.trna55-Pro-TGG        AGG--GAU---GGAGCGCAGCUUGGU-AGCGCGUUUGUUUUGGGUACAAAAUGUCAUGGG 54
chr-20.trna58-Pro-TGG       AGG--GAU---GGAGCGCAGCUUGGU-AGCGCGUUUGUUUUGGGUACAAAAUGUCAUGGG 54
chr-16.trna40-Pro-TGG       AGG--GAU---GUAGCGCAGCUUGGU-AGCGCGCUUGUUUUGGGUACAAAAUGUCAUGGG 54
chr-24.trna65-Pro-TGG       UUG--GAU---GUAGUGUAGCUUGGU-AGCACAUUUGUUUUGGGUACAAAAUGUCACGGG 54
chr-13.trna18-Pro-TGG       AGG--GAU---GUAGCGCAGCUUGGC-AGUGCGUUUGUUUUGGGUACAACAUGUUACGGG 54
chr-15.trna23-Pro-TGG       AGG--GAU---GUGGCGCAGCUUGGU-AGCGUCUUUGUUUUGGAUACAAAAUGUCACGGG 54
chr-15.trna29-Pro-TGG       AGG--GAU---GUGGCGCAGCUUGGU-AGCGUCUUUGUUUUGGAUACAAAAUGUCACGGG 54
chr-17.trna52-Pro-TGG       AGG--GAU---GUGGCGCAGCUUGGU-AGCGUCUUUGUUUUGGAUACAAAAUGUCACGGG 54
chr-14.trna22-Pro-TGG       AGG--GAU---GUAGCGCAACUUGGU-AGUGGGUUUGUUUUGGGUUCAACAUGUCACGGG 54
chr-12.trna50-Pro-TGG       A----GAU---GUAGCGUAGCUUGGU-AGCGCAUUUGUUUUGGGUACAAAAUGCCACGGG 52
chr-15.trna56-Pro-TGG       CGA--GGU---GUAGCGCAGUCUGGUCAGCGCAUCUGUUUUGGGUACAGAGGGCCAUAGG 55
chr-18.trna20-Pro-TGG       GGGUCGAUGCAGUAGCACAACUUGGU-AGCGCGUUUGUUUUGGGUACAAAAUGUCACGGG 59
                                .........10........20........30........40........50.........
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                                .......))))))))))..)).
chr-4.trna29-Pro-AGG        UUCAAUUCUCGGAAUGA--CCC 72
chr-6.trna59-Pro-AGG        UUCAAUUCUCGGAAUGA--CCC 72
chr-16.trna48-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-14.trna65-Pro-AGG       UUCAAUUCUCGGAAUGC--CUC 72
chr-16.trna46-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-13.trna10-Pro-AGG       UUCAAUUUUCGGAAUGC--CCC 72
chr-16.trna55-Pro-AGG       UUCAAUUUUCGGAAUGC--CCC 72
chr-4.trna37-Pro-AGG        UUCAAUUCUCGAAAUGC--CCC 72
chr-3.trna16-Pro-AGG        UUCAAUUCUCGGAAUGC--CCC 72
chr-24.trna42-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-1.trna28-Pro-AGG        UUCAAUUCUCGGAAUGC--CCC 72
chr-5.trna69-Pro-AGG        UUCAAUUCUCGGAAUGC--CCC 72
chr-22.trna10-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-20.trna7-Pro-AGG        UUCAAUUCUCGGAAUGC--CCC 72
chr-10.trna86-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-19.trna107-Pro-AGG      UUCAAUUCUCGGAAUGC--CCC 72
chr-24.trna32-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-11.trna8-Pro-AGG        UUCAAUUCUCGGAAUGC--CCC 72
chr-12.trna13-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-18.trna59-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-14.trna9-Pro-AGG        UUCAAUUCUCGGAAUGC--CCC 72
chr-24.trna37-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-17.trna42-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-4.trna39-Pro-TGG        UUCAAUUCUCGGAAUGC--CCC 72
chr-14.trna25-Pro-TGG       UUCAAUUCUCGGAACGC--CCC 72
chr-24.trna36-Pro-CGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-14.trna10-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-24.trna35-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-1.trna29-Pro-TGG        UUCGAUUCUCGGAACGC--CCC 72
chr-3.trna31-Pro-TGG        UUCGAUUCUCGGAACGC--CCC 72
chr-10.trna62-Pro-TGG       UUCGAUUCUCGGAACGC--CCC 72
chr-16.trna35-Pro-TGG       UUCGAUUCUCGGAACGC--CCC 72
chr-19.trna68-Pro-TGG       UUCGAUUCUCGGAACGC--CCC 72
chr-20.trna64-Pro-TGG       UUCGAUUCUCGGAACGC--CCC 72
chr-4.trna38-Pro-TGG        UUCGAUUCUCGGAAUGC--CCC 72
chr-24.trna41-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-24.trna44-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-24.trna34-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-24.trna38-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-24.trna43-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-23.trna16-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-23.trna15-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-20.trna8-Pro-TGG        UUCGAUUCUCGGAAUGC--CCC 72
chr-24.trna33-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-5.trna74-Pro-TGG        UUCGAUUCUCGGAAUGC--CCC 72
chr-5.trna1-Pro-CGG         UUCGAUUCUCGCAACAC--CCC 72
chr-20.trna6-Pro-CGG        UUCGAUUCUCGGAAUGC--CCC 72
chr-5.trna71-Pro-CGG        UUCGAUUCUCGGAAUGC--CCC 72
chr-13.trna48-Pro-TGG       UUCGAUUCUCGGAACGC--CCC 72
chr-5.trna73-Pro-TGG        UUUGAUUCUCGGAAUGC--CCC 72
chr-18.trna46-Pro-TGG       UUCGAUUCUCGGAACGC--CCC 72
chr-22.trna5-Pro-TGG        UUUGGUUCUCGGAACGC--CCC 72
chr-8.trna38-Pro-TGG        UUCGAUUCUCGGAACGC--CCC 72
chr-12.trna12-Pro-CGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-5.trna72-Pro-TGG        UUCGAUUCUCGGAAUGC--CCC 72
chr-18.trna60-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 72
chr-5.trna70-Pro-CGG        UUCGAUUCUCGGAAUGC--CCC 71
chr-13.trna40-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 71
chr-24.trna40-Pro-TGG       UUCGAUUCUCGGAAUGC--CCC 72
chr-11.trna29-Pro-TGG       UUCGAUUCUCGGAACGC--CCC 72
chr-12.trna14-Pro-TGG       UUCGAUUCUCGGAAUGCACCCA 74
chr-23.trna14-Pro-AGG       UUCAAUUCUCGGAAUGC--CCC 71
chr-11.trna9-Pro-AGG        UUCAAUUCUCGGAAUGC--UCC 71
chr-18.trna6-Pro-TGG        UUCAAUUCU--AAAUA---CUU 70
chr-18.trna8-Pro-CGG        UUCGAU--UCAAAAUAC--UUU 70
chr-2.trna46-Pro-AGG        UUCGA--UUCAAAAUACAUUUA 79
chr-20.trna31-Pro-TGG       UUCAAAUCUUAUCAUCU--UUA 74
chr-4.trna59-Pro-TGG        UUCAAAUCCUAUCAUCC--CUA 74
chr-19.trna55-Pro-TGG       UUCAAAUCCUGUCAUCC--CUA 74
chr-17.trna47-Pro-TGG       UUCAAAUCUUGUCAUCC--UUA 74
chr-2.trna63-Pro-TGG        UUCAAAUCCUGUCAGCC--CUA 74
chr-2.trna9-Pro-TGG         UUCAAAUCCUGUCAUCG--CUA 74
chr-6.trna55-Pro-TGG        UUCAAAUCCUGUCAUCC--CUA 74
chr-20.trna58-Pro-TGG       UUCAAAUCCUGUCAUCC--CUA 74
chr-16.trna40-Pro-TGG       UUCAAAUCCUGUCAUCC--CUA 74
chr-24.trna65-Pro-TGG       UUCAAAUUCUGUCAUCC--CUA 74
chr-13.trna18-Pro-TGG       UUCAAAUCCUGUUAUCC--CUA 74
chr-15.trna23-Pro-TGG       UUCCAAUCUUGUCAUCC--CUA 74
chr-15.trna29-Pro-TGG       UUCCAAUCUUGUCAUCC--CUA 74
chr-17.trna52-Pro-TGG       UUCCAAUCUUGUCAUCC--CUA 74
chr-14.trna22-Pro-TGG       UUCAAGUCUUGUCAUCC--CUA 74
chr-12.trna50-Pro-TGG       UUCAAAUUCUGUCAUCC--CUA 72
chr-15.trna56-Pro-TGG       UUCGAAUCCUGUCACCU--UGA 75
chr-18.trna20-Pro-TGG       UUCAAAUCCUGUCAUCC--CUA 79
                                .........70........80.
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