```
                                ...((((....(((...(((...........))).(((((.......)))))..(((((..
chr-8.trna24-Ser-AGA     ---GUGG----ACGU-GCCUGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGCC-- 48
chr-16.trna32-Ser-CGA    ---AUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-7.trna29-Ser-CGA     ---GUGG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UAGGC-- 48
chr-18.trna4-Ser-CGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-9.trna12-Ser-CGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-17.trna45-Ser-CGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-11.trna26-Ser-CGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-9.trna31-Ser-TGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-22.trna2-Ser-CGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-19.trna70-Ser-CGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-21.trna10-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-21.trna63-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-26.trna45-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-7.trna12-Ser-TGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-8.trna39-Ser-TGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-25.trna24-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-10.trna97-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-17.trna26-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-17.trna60-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-14.trna55-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-14.trna56-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-10.trna1-Ser-TGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-12.trna40-Ser-TGA    ---GUCG----AUAU-GUCCGAGUGG-UUUAGGAGACAGACUUGAAAUCUGU-UGGGC-- 48
chr-26.trna34-Ser-TGA    ---GUUG----AUAU-GUCCGAGUGG-UUAAGGAGGCAGACUUGAAAUCUGU-UAGGC-- 48
chr-8.trna33-Ser-CGA     ---GUCG----AUAU-GUCCGAGUGG-UUAAGGAGACAGACUCGAAAUCUGU-UGGGC-- 48
chr-20.trna33-Ser-TGA    ---GUCG----AUAU-GUCCGGCUGG-UUAAGGAGACGGACUUGAAAUCUGA-UGGGC-- 48
chr-23.trna7-Ser-TGA     ---GUCG----AUA---UCUGAGUGG-UUAAGGAGACAGACUUGAAAUCUGU-UGGGC-- 46
chr-6.trna32-Ser-AGA     ---GUGG----ACGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-6.trna33-Ser-AGA     ---GUGG----ACGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-23.trna24-Ser-AGA    ---GUGG----ACGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-6.trna34-Ser-AGA     ---GUGG----ACGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-6.trna35-Ser-AGA     ---GUGG----ACGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-22.trna37-Ser-AGA    ---GUGG----ACGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-7.trna36-Ser-AGA     ---GUGG----GCGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-12.trna5-Ser-AGA     ---GUGG----GCGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-19.trna65-Ser-AGA    ---GUGG----GCGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-18.trna14-Ser-AGA    ---GUGG----ACAU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-26.trna18-Ser-AGA    ---GUGG----GCAU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-18.trna12-Ser-AGA    ---GUGG----GCGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-19.trna60-Ser-AGA    ---GUGG----GCGU-GCCGGAGUGG-UUAUCGGGCAUGAUUAGAAAUCAUG-UGGGC-- 48
chr-16.trna30-Ser-AGA    ---GUGG----ACAU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-22.trna16-Ser-AGA    ---GUGG----GCGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-16.trna31-Ser-AGA    ---GUGG----ACGU-GCCGGAGUGG-UUAUCGGGCAUGACAAGAAAUCAUG-UGGGC-- 48
chr-19.trna39-Ser-AGA    ---GUGG----GCAU-GCCGGAGUUG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-10.trna11-Ser-AGA    ---GUGG----GUGU-GUCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-2.trna33-Ser-AGA     ---GUGG----GUGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-9.trna13-Ser-AGA     ---GUGG----GCGU-GCCGGAGUGG-UUAUCGGGCAUGACUAGAAAUCAUG-UGAGC-- 48
chr-14.trna26-Ser-AGA    ---GUGG----GCGU-GCCGGAGUGG-UUAUUGGGCAUGACUAGAAAUCAUG-UGGGC-- 48
chr-23.trna20-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-1.trna7-Ser-GCT      ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-2.trna26-Ser-GCT     ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-25.trna7-Ser-GCT     ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUACCUGCUAAGUACA-UGGGG-- 48
chr-15.trna48-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-12.trna26-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGA-- 48
chr-12.trna27-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGA-- 48
chr-12.trna29-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGA-- 48
chr-12.trna34-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGA-- 48
chr-22.trna31-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-9.trna7-Ser-GCT      ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-10.trna70-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-22.trna68-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-22.trna66-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-19.trna77-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-19.trna76-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-14.trna68-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-14.trna69-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-9.trna68-Ser-GCT     ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGU-- 48
chr-13.trna45-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGU-- 48
chr-14.trna24-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGU-- 48
chr-22.trna67-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-12.trna31-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGA-- 48
chr-16.trna29-Ser-GCT    ---GACG----CUUU-GGCCGCGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-10.trna71-Ser-GCT    ---GACG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 48
chr-12.trna28-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGA-- 48
chr-12.trna32-Ser-GCT    ---GUCG----CUUU-GGCCGAGGGG-UUAAGGCGCGUGCCUGCUAAGUACA-UGGGA-- 48
chr-12.trna30-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-U-GGA-- 47
chr-19.trna61-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACC-UGGGU-- 48
chr-19.trna66-Ser-GCT    ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGU-- 48
chr-9.trna60-Ser-GCT     ---GUCG----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGU-- 48
chr-22.trna69-Ser-GCT    ---GACUGAUGCUUU-GGCCGAGUGG-UUAAGGCGUGUGCCUGCUAAGUACA-UGGGG-- 52
chr-12.trna33-Ser-GCT    ---GUUA----CUUU-GGCCGAGUGG-UUAAGGCGUGUGCUAUGUACA-UGGAA-- 48
chr-24.trna12-Ser-GGA    ---GGAG----AGAU-GGCUAAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-1.trna43-Ser-GGA     ---GGAG----AGAU-GGUCGAGUGGUUUAAGGUGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-3.trna33-Ser-GGA     ---AGAG----AGAU-GGCCGAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-5.trna8-Ser-GGA      ---GGAG----AGAU-GGCCGAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUGUAGG-- 50
chr-11.trna13-Ser-GGA    ---GGAG----AGAU-GGCCGAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUCUAGA-- 50
chr-17.trna22-Ser-GGA    ---GGAG----AGAU-GGCCGAGUGGUUCAAAGCGUAGCAUUGGAGCUGCUAUGUAGA-- 50
chr-17.trna34-Ser-GGA    ---GGAG----AGAU-GGCCGAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-4.trna64-Ser-GGA     ---GGAG----AGAU-GGCCGAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-9.trna6-Ser-GGA      ---GGAG----AGAU-GGCCGAGUGGUUUAAGGCGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-20.trna59-Ser-GGA    ---GGAG----AGAU-GGUCGAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-14.trna5-Ser-GGA     ---GGAG----AGAU-GGCCAAGUGGUUCAAGGCGUAGUAUUGGAACUUCUAUGUAGA-- 50
chr-4.trna6-Ser-GGA      ---AGAG----AGAU-GGUCGAGUGGUUCAAAGCGUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-17.trna41-Ser-GGA    ---GGAG----AGAU-GGCUGAGUGGUUCAAGGCUUAGCAUUGGAACUGCUAUGUAGA-- 50
chr-24.trna16-Ser-GGA    ---AUAA----ACAUAAGCCGAGUGGUUCAAGGCGUAGCAUUGGAACUGCUAUGUAGA-- 51
chr-21.trna59-Ser-GGA    ---AGAG----AGAU-GGUCGAGUGGUUCAAGGCGUAGCAUUGGAAUUGCUAUGUAGA-- 50
chr-15.trna54-Ser-GCT    ---GGAG----GGAU-GGCUGAGUGGCUUAAGGCAUUGGUUUGCUAAAUCGACAUACA-- 50
chr-13.trna42-Ser-GCT    ---GGAG----AGAU-GGCUGAGUGGACUAAAGCGUCGGAUUGCUAAUUCGUUGUGCG-- 50
chr-2.trna19-Ser-GCT     ---GGAG----AGAU-GGCUGAGUGGACUAAAGCGUUGGAUUGCUAAUCCGUUGUGCG-- 50
chr-4.trna24-Ser-GCT     ---GGAG----AGAU-GGCUGAGUGGACUAAAGCGUCGGAUUGCUAAUCCGUUGUGCA-- 50
chr-7.trna42-Ser-GCT     ---GGAG----AGAU-GGCUGAGUGGACUAAAGCGUCGGAUUGCUAAUCCGUUGUGCA-- 50
chr-15.trna59-Ser-GCT    ---AGAG----AGAU-GGCUGAGUGGACUAAAGCGUCGGAUUGCUAAUCCGUUGUGCG-- 50
chr-3.trna1-Ser-GCT      ---GGAG----AGAU-GGCUGAGUGGACUAAAGUGUCAGAUUGCUAAUCUGUUGUGCG-- 50
chr-8.trna8-Ser-GCT      ---GGAG----AGAU-GGCUGAGUGGACUAAAGCGUCGGAUUGCUAAUCCGUUGUGCG-- 50
chr-1.trna12-Ser-GCT     ---GGAG----AGAU-GGCUGAGUGGACUAAAGCGUCGGAUUGCUAACCCGUUGUGCG-- 50
chr-7.trna31-Ser-GCT     ---GGAG----AGAU-GGCUAAGUGGACUAAAGCGUCGGAUUGCUAAUCCGUUGUGCG-- 50
chr-18.trna22-Ser-GCT    ---GCAG----AGAC-GGCUGAGUGGACUAAAGUGUCGGAUUGCUAAUCCGUUGUGUG-- 50
chr-15.trna1-Ser-TGA     ---GGAG----AGAU-AGUUGAGUGGUUGAUAGCUCUGGUCUUGAAAACUGGUAUAGUUC 52
chr-3.trna36-Ser-TGA     ---GGAG----AGAU-GGCUGAGUGGUUGAUAGCUUCGGUCUUGAAAACCGAUAUAGUUC 52
chr-4.trna3-Ser-TGA      ---GGAG----AGAU-GGCUGAGUGGUUGAUAGCUUCGGUCUUGAAAACCGAUAUAGUUC 52
chr-10.trna95-Ser-CGA    ---GGAG----AGAU-GACUGAGUGGUUGAUAGCUUCGGUCCCGAAAACCGGUAUAGUUC 52
chr-11.trna11-Ser-TGA    ---GGAG----AGAU-GGCUGAGUGGUUGAUAGCUCUGGUCUUGAAAACCGGUAUAGUUC 52
chr-24.trna9-Ser-TGA     ---GAAG----AGAU-GGCUGAGUGGUUGAUAGCUCCUGUCUUGAAAACUAGUAUAGUUC 52
chr-10.trna96-Ser-TGA    ---GGAG----AGAU-GGCUGAGUGGUUGAUAGCUCCUGUCUUGAAAACUGGUAUUGUUC 52
chr-24.trna18-Ser-TGA    ---GGAG----AGAU-GACUAAGUGGUUGAUAGCUCCGGCCUUGAAAAUCGGUAUAGUUC 52
chr-22.trna15-Ser-GCT    ---GGAG----AGAU-GACUGAGUGGACUAAAGUGUCGGAUUGCUAAUUCG--------- 43
chr-17.trna59-Ser-GCT    ---GGAG----AGAU-GGCUGAGUGUAAUAAAGCGUUGGAUUGCUAAUUCG--------- 43
chr-14.trna52-Ser-TGA    ACCAGCAAUGUCGAUUUUCCGCGUGG-UUAACGAGGCAGACUUGAAAUCUGUUGGACU-- 57
chr-1.trna46-Ser-CGA     ---GGGU----AUGUAGCUCAAAUGG---UAGAGCUGCGAGAGGCA-------------- 36
                                 .........10........20........30........40........50.........

                                 ..........)))))..(((((.......)))))))))))).
chr-8.trna24-Ser-AGA     -----CU---GCCUGCGCAGGUUCGAAUCCUACCGCUCACG 81
chr-16.trna32-Ser-CGA    ----UAU---GCCUGCGCAGGUUCGAAUCCUUCUGUCGACG 82
chr-7.trna29-Ser-CGA     ----UCU---GCCUGCGCAGGUUCGAAUCCUGCUGUGGACG 82
chr-18.trna4-Ser-CGA     ----AUU---GCCUGCGCAGGUUCGAAUCCUGCUGUCGACG 82
chr-9.trna12-Ser-CGA     ----AUU---GCCUGCGCAGGUUCGAAUCCUGCUGUCGACG 82
chr-17.trna45-Ser-CGA    ----AUU---GCCUGCGCAGGUUCGAAUCCUGCUGUCGACG 82
chr-11.trna26-Ser-CGA    ----AUU---GCCUGCGCAGGUUCGAAUCCUGCUGUCGACG 82
chr-9.trna31-Ser-TGA     ----AUU---GCCCGCGCAGGUUCGAACCCUCCUGUUGAUG 82
chr-22.trna2-Ser-CGA     ----UAU---GCCUGCGCAGGUUCGAAUCCUGCUGUCGACG 82
chr-19.trna70-Ser-CGA    ----UAU---GCCUGCGCAGGUUCGAAUCCUGCUGUCGACG 82
chr-21.trna10-Ser-TGA    ----ACU---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-21.trna63-Ser-TGA    ----ACU---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-26.trna45-Ser-TGA    ----AUU---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-7.trna12-Ser-TGA     ----AUU---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-8.trna39-Ser-TGA     ----AUU---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-25.trna24-Ser-TGA    ----UAC---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-10.trna97-Ser-TGA    ----UAC---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-17.trna26-Ser-TGA    ----UAC---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-17.trna60-Ser-TGA    ----UAC---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-14.trna55-Ser-TGA    ----UUC---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-14.trna56-Ser-TGA    ----UUC---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-10.trna1-Ser-TGA     ----UAG---GCCCGCGCAGGUUCGAACCCUGCUAUCGACG 82
chr-12.trna40-Ser-TGA    ----ACU---GCCCGCGCACGUUCGAACCCUGAUGUCGACG 82
chr-26.trna34-Ser-TGA    ----ACU---GCCCCCGCAGGUUCGAACCCUGCUGUCGACG 82
chr-8.trna33-Ser-CGA     ----CCU---GCCUGCGCAGGUUUG-AUCCUGCUGUUGACG 81
chr-20.trna33-Ser-TGA    ----ACU---GCCCGCGCAGAUUCGUACCCUGCUGUCGACG 82
chr-23.trna7-Ser-TGA     ----UAC---GCCCGCGCAGGUUCGAACCCUGCUGUCGACG 80
chr-6.trna32-Ser-AGA     ----UCG---GCCCGCGCAGGUUCGAAUCCUUCCGUUCACG 82
chr-6.trna33-Ser-AGA     ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGUCCACG 82
chr-23.trna24-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGUCCACG 82
chr-6.trna34-Ser-AGA     ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGUUCACG 82
chr-6.trna35-Ser-AGA     ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGUUCACG 82
chr-22.trna37-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGUUCACG 82
chr-7.trna36-Ser-AGA     ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGCUCACG 82
chr-12.trna5-Ser-AGA     ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGCUCACG 82
chr-19.trna65-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGCUCACG 82
chr-18.trna14-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCUGUUCACG 82
chr-26.trna18-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCUGCUCACG 82
chr-18.trna12-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGCUCAUG 82
chr-19.trna60-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGCUCACG 82
chr-16.trna30-Ser-AGA    ----UCU---GCCCGCGCAGGUUCGAAUCCUGCCGUUCACG 82
chr-22.trna16-Ser-AGA    ----UCU---GCCCGCGCAGGUUUGAAUCCUGCCGCUCACG 82
chr-16.trna31-Ser-AGA    ----UCU---GCCCGCGCAGGUUUGAAUCCUGCCGUUCACG 82
chr-19.trna39-Ser-AGA    ----UCU---GCCCGCGCAGGUUUGAAUCCUGCUGUCCACG 82
chr-10.trna11-Ser-AGA    ----UUU---GCCCGCGCAGGUUCAAAUCCUGCUGCUCACG 82
chr-2.trna33-Ser-AGA     ----UUU---GCCCACGCAGAUUCGAAUCCUGCCGCUCACG 82
chr-9.trna13-Ser-AGA     ----UCU---GCCCACGCAGGUUCGAAUCCUGCCGCUCACG 82
chr-14.trna26-Ser-AGA    ----UUC---GCCCGCGCAGGUUCGAAUCCUGCCGCUCACG 82
chr-23.trna20-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUUUUUCAGGCGACG 82
chr-1.trna7-Ser-GCT      ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-2.trna26-Ser-GCT     ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-25.trna7-Ser-GCT     ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-15.trna48-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-12.trna26-Ser-GCT    ----UUU---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-12.trna27-Ser-GCT    ----UUU---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-12.trna29-Ser-GCT    ----UUU---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-12.trna34-Ser-GCT    ----UUU---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-22.trna31-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-9.trna7-Ser-GCT      ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-10.trna70-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-22.trna68-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-22.trna66-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-19.trna77-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-19.trna76-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-14.trna68-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-14.trna69-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-9.trna68-Ser-GCT     ----UUC---ACCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-13.trna45-Ser-GCT    ----UUC---ACCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-14.trna24-Ser-GCT    ----UUC---ACCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-22.trna67-Ser-GCT    ----UUC---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-12.trna31-Ser-GCT    ----UUU---UCCUGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-16.trna29-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGCGUCG 82
chr-10.trna71-Ser-GCT    ----ACU---CCCCGCGAGAGUUCGAAUCUCUCAGGUGUUG 82
chr-12.trna28-Ser-GCT    ---UUUU---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 83
chr-12.trna32-Ser-GCT    ----UUU---UCCCGCGAGAGUUUGAAUCUCUCAGGCGACG 82
chr-12.trna30-Ser-GCT    ---AUUU---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-19.trna61-Ser-GCT    ----UCA---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-19.trna66-Ser-GCT    ----UCA---UCCCGCGAGAGUUCGAAUCUCUCAGGCGACG 82
chr-9.trna60-Ser-GCT     ----UCA----CCCGCGAGAGUUCGAAUCUCUCAGGCGACG 81
chr-22.trna69-Ser-GCT    ----UUU---CCCCGCGAGAGUUCGAAUCUCUCAGGAGUCG 86
chr-12.trna33-Ser-GCT    ----UUU---UUUCGCGAGAGAUCGAAUCUCUUAGGCGAUA 82
chr-24.trna12-Ser-GGA    ---CUCU-UACUUACCAAGGGUUCGAAUCCUUCUCUUUCCG 87
chr-1.trna43-Ser-GGA     ---CUCU-UGUUUACUGAGGUUUCGAAUCCCUCUCUUUCCG 87
chr-3.trna33-Ser-GGA     ---CUCU-UGUUUAUCGAGGGUUCAAAUCCCUCUCUUUCUG 87
chr-5.trna8-Ser-GGA      ---CUUU-UGUUUACUGAGGGUUCGAAUUCCUCUCUUUCUG 87
chr-11.trna13-Ser-GGA    ---CUCU-UGUUUACCGAGGGUUCGAAUCCCUCUCUUUCCG 87
chr-17.trna22-Ser-GGA    ---CUCU-UGUUUACCGAGGGUUCGAAUCCCUCUCUUUCUG 87
chr-17.trna34-Ser-GGA    ---AUCU-UGUUUACCGAGGGUUCGAAUCCCUCUCUUUCCG 87
chr-4.trna64-Ser-GGA     ---CUCU-UGUUUACCGAGGGCUCGAAUCCCUCUCUUUUCG 87
chr-9.trna6-Ser-GGA      ---CUCU-UGUUUACCGAUGAUUCGAAUCCCUCUCUUUCCG 87
chr-20.trna59-Ser-GGA    ---CUCU-UGUUUACCGAAGGUUCGAAUCCCUCUCUUUCCG 87
chr-14.trna5-Ser-GGA     ---CUCU-UGUUUAUCGAGGGUUCGAAUCCCUCUCUUUCCG 87
chr-4.trna6-Ser-GGA      ---CUCU-UGUUUACCAAGGGUUUGAAUCCCUCUCUUUCUG 87
chr-17.trna41-Ser-GGA    ---CUCU-UGUUUACCGAGGGUUCGAAUUCCUCUCUUUCCG 87
chr-24.trna16-Ser-GGA    ---CUCU-UGUUUACCGAGGGUUCGAAUCCCUCUCUUUCCG 88
chr-21.trna59-Ser-GGA    ---CAUU-UGUUUACCGAAAGUUUGAAUCCUGCCUUUUUCG 87
chr-15.trna54-Ser-GCT    ---AUAAAAUUGUAUCAUGGGUUCGAAUCCCAUUUCCUCCG 88
chr-13.trna42-Ser-GCT    ---AGUUAUUCGUACCAAGGGUUCGAAUCCCUCUCUUUCCA 88
chr-2.trna19-Ser-GCT     ---AGUUAUUCGUACCGAGGGUUCGAAUCCCUCUCUUUCCG 88
chr-4.trna24-Ser-GCT     ---AGUUAUUCGUACCGAGGGUUCGAAUCCCUCUUUUUCCG 88
chr-7.trna42-Ser-GCT     ---AGUUAUUCGUACCGAGGGUUCGAAUCCCUCUUUUUCCG 88
chr-15.trna59-Ser-GCT    ---AGUUAUUCGUACCGAGGGUUCGAAUCCCUCUCUUUUCCG 88
chr-3.trna1-Ser-GCT      ---AGUUAUUCGUACCGAGGGUUCAAAUCCCUCUCUUUCCG 88
chr-8.trna8-Ser-GCT      ---AGUUAUUCGUACCGAGGGUUCGAAUAUCUCUCUUUCCG 88
chr-1.trna12-Ser-GCT     ---AGUUAUUCGUACCGAGGGUUCGAAUCCCUCUCUUUUUG 88
chr-7.trna31-Ser-GCT     ---AGUUAUUCGUACCGAGGGUUCGAAUCCCUCUCUUUUUG 88
chr-18.trna22-Ser-GCT    ---AGUUAUUCAUACUGAGGGUUUGAAUCCCUCUCUUUCCA 88
chr-15.trna1-Ser-TGA     GAAACAAAUAGCUAUUGAGGGUUCGAAUACCUCUCUCUUCU 93
chr-3.trna36-Ser-TGA     GAAACAAAGAACUAUCGAAGGUUCGAAUCCCUCUCUCUCCU 93
chr-4.trna3-Ser-TGA      GAAACAAAGAACUAUCGAAGGUUCGAAUCCCUCUCUCUCCU 93
chr-10.trna95-Ser-CGA    GAAACAAAGAACUAUUGAGGGUUCGAAUCCCUUUCUCUCCU 93
chr-11.trna11-Ser-TGA    GAAACAGAGAACUAUCGAGGGUUUGAAUCCCUCUCUCUCCU 93
chr-24.trna9-Ser-TGA     GAAACAAAGAACUAUUGAGGGUUCGAAUCCCUCUCUCUCCU 93
chr-10.trna96-Ser-TGA    AAAACAAAGAACUAUUAAGGGUUCGAAUCCUUCUCUCUCCU 93
chr-24.trna18-Ser-TGA    GAAACAAAUUACUAUUGAGGGUUCAAAUCCCUCUCUCUCCU 93
chr-22.trna15-Ser-GCT    ------------UACCGAGGGUUCGAAUCCCUCUAUUUUCG 72
chr-17.trna59-Ser-GCT    ------------UACCGAGGGUUCAAAUCCCUCUCUUUCCG 72
chr-14.trna52-Ser-TGA    --------GCGGCCGCGCAAGUUCGAUCCCUGCUGCCGACG 90
chr-1.trna46-Ser-CGA     ----------------CGGGGUUCGAUCCCUCGCAUCUCCA 61
                                 .........70........80........90.........
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