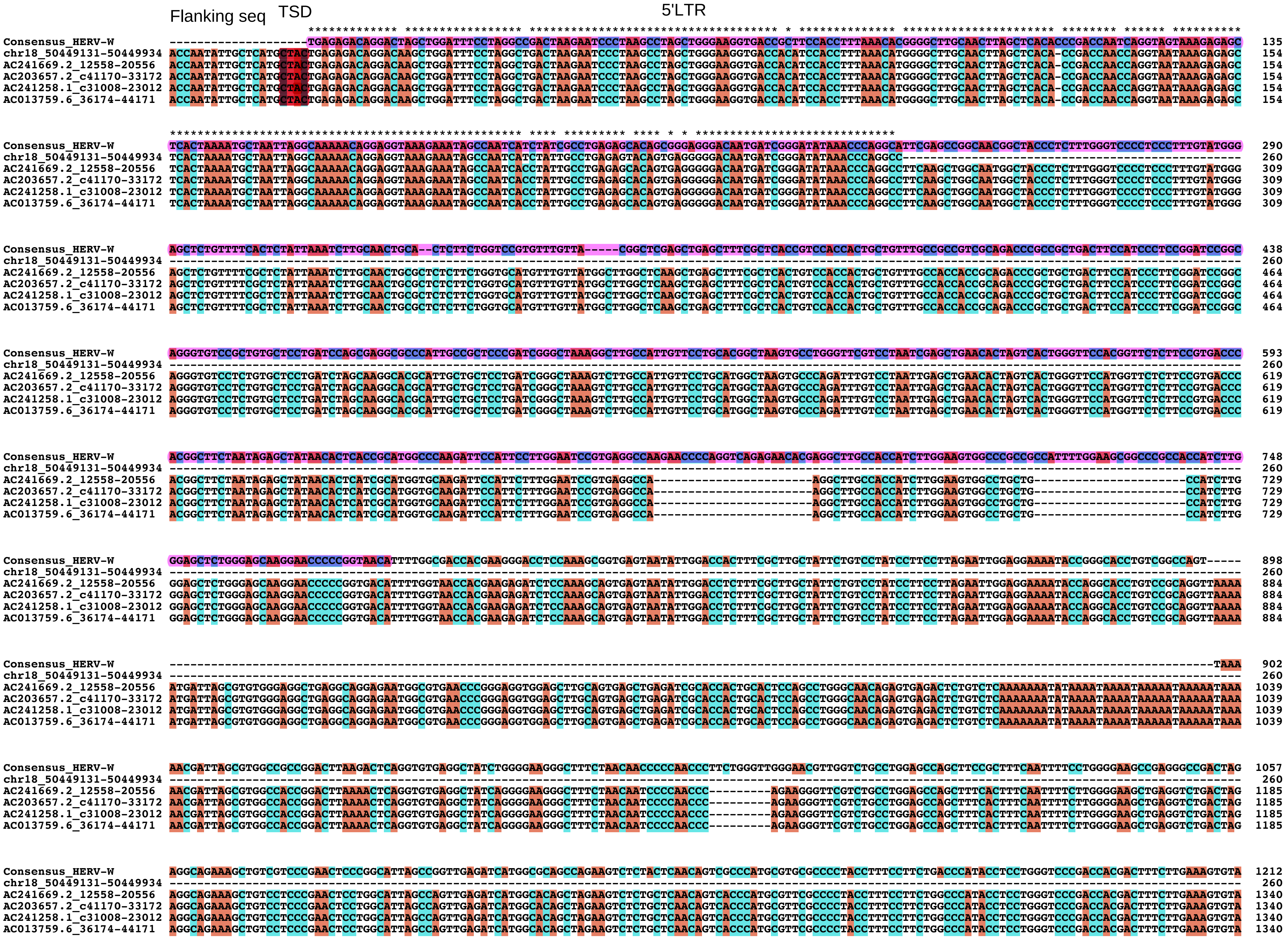

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                                            ************* ***************** ************************************ * ************** ********************** ******** ****** **********
Consensus_HERV-W        --------------------TGAGAGACAGGACTAGCTGGATTTCCTAGGCCGACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCGCTTCCACCTTTAAACACGGGGCTTGCAACTTAGCTCACACCCGACCAATCAGGTAGTAAAGAGAGC  135
chr18_50449131-50449934 ACCAATATTGCTCATGCTACTGAGAGACAGGACAAGCTGGATTTCCTAGGCTGACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCACATCCACCTTTAAACATGGGGCTTGCAACTTAGCTCACA-CCGACCAACCAGGTAATAAAGAGAGC  154
AC241669.2_12558-20556  ACCAATATTGCTCATGCTACTGAGAGACAGGACAAGCTGGATTTCCTAGGCTGACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCACATCCACCTTTAAACATGGGGCTTGCAACTTAGCTCACA-CCGACCAACCAGGTAATAAAGAGAGC  154
AC203657.2_c41170-33172 ACCAATATTGCTCATGCTACTGAGAGACAGGACAAGCTGGATTTCCTAGGCTGACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCACATCCACCTTTAAACATGGGGCTTGCAACTTAGCTCACA-CCGACCAACCAGGTAATAAAGAGAGC  154
AC241258.1_c31008-23012 ACCAATATTGCTCATGCTACTGAGAGACAGGACAAGCTGGATTTCCTAGGCTGACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCACATCCACCTTTAAACATGGGGCTTGCAACTTAGCTCACA-CCGACCAACCAGGTAATAAAGAGAGC  154
AC013759.6_36174-44171  ACCAATATTGCTCATGCTACTGAGAGACAGGACAAGCTGGATTTCCTAGGCTGACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCACATCCACCTTTAAACATGGGGCTTGCAACTTAGCTCACA-CCGACCAACCAGGTAATAAAGAGAGC  154

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Consensus_HERV-W        TCACTAAAATGCTAATTAGGCAAAAACAGGAGGTAAAGAAATAGCCAATCATCTATCGCCTGAGAGCACAGCGGGAGGGACAATGATCGGGATATAAACCCAGGCATTCGAGCCGGCAACGGCTACCCTCTTTGGGTCCCCTCCCTTTGTATGGG  290
chr18_50449131-50449934 TCACTAAAATGCTAATTAGGCAAAAACAGGAGGTAAAGAAATAGCCAATCATCTATTGCCTGAGAGTACAGTGAGGGGGACAATGATCGGGATATAAACCCAGGCC-------------------------------------------------  260
AC241669.2_12558-20556  TCACTAAAATGCTAATTAGGCAAAAACAGGAGGTAAAGAAATAGCCAATCACCTATTGCCTGAGAGCACAGTGAGGGGGACAATGATCGGGATATAAACCCAGGCCTTCAAGCTGGCAATGGCTACCCTCTTTGGGTCCCCTCCCTTTGTATGGG  309
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AC241258.1_c31008-23012 TCACTAAAATGCTAATTAGGCAAAAACAGGAGGTAAAGAAATAGCCAATCACCTATTGCCTGAGAGCACAGTGAGGGGGACAATGATCGGGATATAAACCCAGGCCTTCAAGCTGGCAATGGCTACCCTCTTTGGGTCCCCTCCCTTTGTATGGG  309
AC013759.6_36174-44171  TCACTAAAATGCTAATTAGGCAAAAACAGGAGGTAAAGAAATAGCCAATCACCTATTGCCTGAGAGCACAGTGAGGGGGACAATGATCGGGATATAAACCCAGGCCTTCAAGCTGGCAATGGCTACCCTCTTTGGGTCCCCTCCCTTTGTATGGG  309

Consensus_HERV-W        AGCTCTGTTTTCACTCTATTAAATCTTGCAACTGCA--CTCTTCTGGTCCGTGTTTGTTA-----CGGCTCGAGCTGAGCTTTCGCTCACCGTCCACCACTGCTGTTTGCCGCCGTCGCAGACCCGCCGCTGACTTCCATCCCTCCGGATCCGGC  438
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  AGCTCTGTTTTCGCTCTATTAAATCTTGCAACTGCGCTCTCTTCTGGTGCATGTTTGTTATGGCTTGGCTCAAGCTGAGCTTTCGCTCACTGTCCACCACTGCTGTTTGCCACCACCGCAGACCCGCTGCTGACTTCCATCCCTTCGGATCCGGC  464
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AC013759.6_36174-44171  AGCTCTGTTTTCGCTCTATTAAATCTTGCAACTGCGCTCTCTTCTGGTGCATGTTTGTTATGGCTTGGCTCAAGCTGAGCTTTCGCTCACTGTCCACCACTGCTGTTTGCCACCACCGCAGACCCGCTGCTGACTTCCATCCCTTCGGATCCGGC  464

Consensus_HERV-W        AGGGTGTCCGCTGTGCTCCTGATCCAGCGAGGCGCCCATTGCCGCTCCCGATCGGGCTAAAGGCTTGCCATTGTTCCTGCACGGCTAAGTGCCTGGGTTCGTCCTAATCGAGCTGAACACTAGTCACTGGGTTCCACGGTTCTCTTCCGTGACCC  593
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  AGGGTGTCCTCTGTGCTCCTGATCTAGCAAGGCACGCATTGCTGCTCCTGATCGGGCTAAAGTCTTGCCATTGTTCCTGCATGGCTAAGTGCCCAGATTTGTCCTAATTGAGCTGAACACTAGTCACTGGGTTCCATGGTTCTCTTCCGTGACCC  619
AC203657.2_c41170-33172 AGGGTGTCCTCTGTGCTCCTGATCTAGCAAGGCACGCATTGCTGCTCCTGATCGGGCTAAAGTCTTGCCATTGTTCCTGCATGGCTAAGTGCCCAGATTTGTCCTAATTGAGCTGAACACTAGTCACTGGGTTCCATGGTTCTCTTCCGTGACCC  619
AC241258.1_c31008-23012 AGGGTGTCCTCTGTGCTCCTGATCTAGCAAGGCACGCATTGCTGCTCCTGATCGGGCTAAAGTCTTGCCATTGTTCCTGCATGGCTAAGTGCCCAGATTTGTCCTAATTGAGCTGAACACTAGTCACTGGGTTCCATGGTTCTCTTCCGTGACCC  619
AC013759.6_36174-44171  AGGGTGTCCTCTGTGCTCCTGATCTAGCAAGGCACGCATTGCTGCTCCTGATCGGGCTAAAGTCTTGCCATTGTTCCTGCATGGCTAAGTGCCCAGATTTGTCCTAATTGAGCTGAACACTAGTCACTGGGTTCCATGGTTCTCTTCCGTGACCC  619

Consensus_HERV-W        ACGGCTTCTAATAGAGCTATAACACTCACCGCATGGCCCAAGATTCCATTCCTTGGAATCCGTGAGGCCAAGAACCCCAGGTCAGAGAACACGAGGCTTGCCACCATCTTGGAAGTGGCCCGCCGCCATTTTGGAAGCGGCCCGCCACCATCTTG  748
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  ACGGCTTCTAATAGAGCTATAACACTCATCGCATGGTGCAAGATTCCATTCTTTGGAATCCGTGAGGCCA-----------------------AGGCTTGCCACCATCTTGGAAGTGGCCTGCTG----------------------CCATCTTG  729
AC203657.2_c41170-33172 ACGGCTTCTAATAGAGCTATAACACTCATCGCATGGTGCAAGATTCCATTCTTTGGAATCCGTGAGGCCA-----------------------AGGCTTGCCACCATCTTGGAAGTGGCCTGCTG----------------------CCATCTTG  729
AC241258.1_c31008-23012 ACGGCTTCTAATAGAGCTATAACACTCATCGCATGGTGCAAGATTCCATTCTTTGGAATCCGTGAGGCCA-----------------------AGGCTTGCCACCATCTTGGAAGTGGCCTGCTG----------------------CCATCTTG  729
AC013759.6_36174-44171  ACGGCTTCTAATAGAGCTATAACACTCATCGCATGGTGCAAGATTCCATTCTTTGGAATCCGTGAGGCCA-----------------------AGGCTTGCCACCATCTTGGAAGTGGCCTGCTG----------------------CCATCTTG  729

Consensus_HERV-W        GGAGCTCTGGGAGCAAGGAACCCCCGGTAACATTTTGGCGACCACGAAGGGACCTCCAAAGCGGTGAGTAATATTGGACCACTTTCGCTTGCTATTCTGTCCTATCCTTCCTTAGAATTGGAGGAAAATACCGGGCACCTGTCGGCCAGT-----  898
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  GGAGCTCTGGGAGCAAGGAACCCCCGGTGACATTTTGGTAACCACGAAGAGATCTCCAAAGCAGTGAGTAATATTGGACCTCTTTCGCTTGCTATTCTGTCCTATCCTTCCTTAGAATTGGAGGAAAATACCAGGCACCTGTCCGCAGGTTAAAA  884
AC203657.2_c41170-33172 GGAGCTCTGGGAGCAAGGAACCCCCGGTGACATTTTGGTAACCACGAAGAGATCTCCAAAGCAGTGAGTAATATTGGACCTCTTTCGCTTGCTATTCTGTCCTATCCTTCCTTAGAATTGGAGGAAAATACCAGGCACCTGTCCGCAGGTTAAAA  884
AC241258.1_c31008-23012 GGAGCTCTGGGAGCAAGGAACCCCCGGTGACATTTTGGTAACCACGAAGAGATCTCCAAAGCAGTGAGTAATATTGGACCTCTTTCGCTTGCTATTCTGTCCTATCCTTCCTTAGAATTGGAGGAAAATACCAGGCACCTGTCCGCAGGTTAAAA  884
AC013759.6_36174-44171  GGAGCTCTGGGAGCAAGGAACCCCCGGTGACATTTTGGTAACCACGAAGAGATCTCCAAAGCAGTGAGTAATATTGGACCTCTTTCGCTTGCTATTCTGTCCTATCCTTCCTTAGAATTGGAGGAAAATACCAGGCACCTGTCCGCAGGTTAAAA  884

Consensus_HERV-W        -------------------------------------------------------------------------------------------------------------------------------------------------------TAAA  902
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  ATGATTAGCGTGTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGTGGAGCTTGCAGTGAGCTGAGATCGCACCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTCTGTCTCAAAAAAATATAAAATAAAATAAAAATAAAAATAAA 1039
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AC241258.1_c31008-23012 ATGATTAGCGTGTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGTGGAGCTTGCAGTGAGCTGAGATCGCACCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTCTGTCTCAAAAAAATATAAAATAAAATAAAAATAAAAATAAA 1039
AC013759.6_36174-44171  ATGATTAGCGTGTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGTGGAGCTTGCAGTGAGCTGAGATCGCACCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTCTGTCTCAAAAAAATATAAAATAAAATAAAAATAAAAATAAA 1039

Consensus_HERV-W        AACGATTAGCGTGGCCGCCGGACTTAAGACTCAGGTGTGAGGCTATCTGGGGAAGGGCTTTCTAACAACCCCCAACCCTTCTGGGTTGGGAACGTTGGTCTGCCTGGAGCCAGCTTCCGCTTTCAATTTTCCTGGGGAAGCCGAGGGCCGACTAG 1057
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  AACGATTAGCGTGGCCACCGGACTTAAAACTCAGGTGTGAGGCTATCAGGGGAAGGGCTTTCTAACAATCCCCAACCC---------AGAAGGGTTCGTCTGCCTGGAGCCAGCTTTCACTTTCAATTTTCTTGGGGAAGCTGAGGTCTGACTAG 1185
AC203657.2_c41170-33172 AACGATTAGCGTGGCCACCGGACTTAAAACTCAGGTGTGAGGCTATCAGGGGAAGGGCTTTCTAACAATCCCCAACCC---------AGAAGGGTTCGTCTGCCTGGAGCCAGCTTTCACTTTCAATTTTCTTGGGGAAGCTGAGGTCTGACTAG 1185
AC241258.1_c31008-23012 AACGATTAGCGTGGCCACCGGACTTAAAACTCAGGTGTGAGGCTATCAGGGGAAGGGCTTTCTAACAATCCCCAACCC---------AGAAGGGTTCGTCTGCCTGGAGCCAGCTTTCACTTTCAATTTTCTTGGGGAAGCTGAGGTCTGACTAG 1185
AC013759.6_36174-44171  AACGATTAGCGTGGCCACCGGACTTAAAACTCAGGTGTGAGGCTATCAGGGGAAGGGCTTTCTAACAATCCCCAACCC---------AGAAGGGTTCGTCTGCCTGGAGCCAGCTTTCACTTTCAATTTTCTTGGGGAAGCTGAGGTCTGACTAG 1185

Consensus_HERV-W        AGGCAGAAAGCTGTCGTCCCGAACTCCCGGCATTAGCCGGTTGAGATCATGGCGCAGCCAGAAGTCTCTACTCAACAGTCGCCCATGCGTGCGCCCCTACCTTTCCTTCTGACCCATACCTCCTGGGTCCCGACCACGACTTTCTTGAAAGTGTA 1212
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  AGGCAGAAAGCTGTCCTCCCGAACTCCTGGCATTAGCCAGTTGAGATCATGGCACAGCTAGAAGTCTCTGCTCAACAGTCACCCATGCGTTCGCCCCTACCTTTCCTTCTGGCCCATACCTCCTGGGTCCCGACCACGACTTTCTTGAAAGTGTA 1340
AC203657.2_c41170-33172 AGGCAGAAAGCTGTCCTCCCGAACTCCTGGCATTAGCCAGTTGAGATCATGGCACAGCTAGAAGTCTCTGCTCAACAGTCACCCATGCGTTCGCCCCTACCTTTCCTTCTGGCCCATACCTCCTGGGTCCCGACCACGACTTTCTTGAAAGTGTA 1340
AC241258.1_c31008-23012 AGGCAGAAAGCTGTCCTCCCGAACTCCTGGCATTAGCCAGTTGAGATCATGGCACAGCTAGAAGTCTCTGCTCAACAGTCACCCATGCGTTCGCCCCTACCTTTCCTTCTGGCCCATACCTCCTGGGTCCCGACCACGACTTTCTTGAAAGTGTA 1340
AC013759.6_36174-44171  AGGCAGAAAGCTGTCCTCCCGAACTCCTGGCATTAGCCAGTTGAGATCATGGCACAGCTAGAAGTCTCTGCTCAACAGTCACCCATGCGTTCGCCCCTACCTTTCCTTCTGGCCCATACCTCCTGGGTCCCGACCACGACTTTCTTGAAAGTGTA 1340
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Consensus_HERV-W        GCCCCAAAATTCTCCTTACCTCTGAATCTACTTCCTCTGATCCCTGCCTCCTAGGTACTAATGGTTCAGACTTTCATTTCCTCTAGCAAGTTGTATCTCCAAAGGGATCTAAGGAAGCTCTACGCTGCGTCCTTAGGCACCTAGGCTATGAACCC  1367
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  GCCCCAAAATTCTCCTTACTTCTGAATCTACTTCCCCTGATCCCTACCTCCTAGGTACTAATGGTTCAGACTTTCATTTCATCTAGCAAGTTGTATCTCCAAAGGGATCTAAGGAAGCTCTATGCTGCATCCTTAGGCATCTAGGCTATAAATCC  1495
AC203657.2_c41170-33172 GCCCCAAAATTCTCCTTACTTCTGAATCTACTTCCCCTGATCCCTACCTCCTAGGTACTAATGGTTCAGACTTTCATTTCATCTAGCAAGTTGTATCTCCAAAGGGATCTAAGGAAGCTCTATGCTGCATCCTTAGGCATCTAGGCTATAAATCC  1495
AC241258.1_c31008-23012 GCCCCAAAATTCTCCTTACTTCTGAATCTACTTCCCCTGATCCCTACCTCCTAGGTACTAATGGTTCAGACTTTCATTTCATCTAGCAAGTTGTATCTCCAAAGGGATCTAAGGAAGCTCTATGCTGCATCCTTAGGCATCTAGGCTATAAATCC  1495
AC013759.6_36174-44171  GCCCCAAAATTCTCCTTACTTCTGAATCTACTTCCCCTGATCCCTACCTCCTAGGTACTAATGGTTCAGACTTTCATTTCATCTAGCAAGTTGTATCTCCAAAGGGATCTAAGGAAGCTCTATGCTGCATCCTTAGGCATCTAGGCTATAAATCC  1495


Consensus_HERV-W        AGGGAGTCTTGTCCCTGGTGTCCCTCCCAATTTAGGCATACAGCTCTCGACATGGGCAGTTATGTGGGACCCGTTCCCCACCACCCTTGCCAGGGCCCCAAGTTTGTAAATGGCTAAGGGAAAAGA----GAGACAGAGGAGAGAGAGAGAGACG  1518
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  AGGGACTCTTATTCCTGATGTCCCTCCTGATTTAGGTATACAGCTCTCGACATGGGCAGTTATGTGGGACCCATTCCCTACCACCCTTGCCAGGGCCCCAAGCTTGT-AATGGCGGAGGAGAGAGAGCGCGAGACAGAGGAGAGAGCGTGAGATG  1649
AC203657.2_c41170-33172 AGGGACTCTTATTCCTGATGTCCCTCCTGATTTAGGTATACAGCTCTCGACATGGGCAGTTATGTGGGACCCATTCCCTACCACCCTTGCCAGGGCCCCAAGCTTGT-AATGGCGGAGGAGAGAGAGCGCGAGACAGAGGAGAGAGCGTGAGATG  1649
AC241258.1_c31008-23012 AGGGACTCTTATTCCTGATGTCCCTCCTGATTTAGGTATACAGCTCTCGACATGGGCAGTTATGTGGGACCCATTCCCTACCACCCTTGCCAGGGCCCCAAGCTTGT-AATGGCGGAGGAGAGAGAGCGCGAGACAGAGGAGAGAGCGTGAGATG  1649
AC013759.6_36174-44171  AGGGACTCTTATTCCTGATGTCCCTCCTGATTTAGGTATACAGCTCTCGACATGGGCAGTTATGTGGGACCCATTCCCTACCACCCTTGCCAGGGCCCCAAGCTTGT-AATGGCGGAGGAGAGAGAGCGCGAGACAGAGGAGAGAGCGTGAGATG  1649


Consensus_HERV-W        GAGGAGAGAGAGAGAGAGACAGAGAGGAGAGAGAGACAGGAGAGAGACAGAAGAGAGAGAGAGACAGAGAGGAGAG------AGAGAGAGTCAAAGAGAGAAAGAAAGAGAWAGA----------------------------------------  1627
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  GAG--GAGATAGAGCGAGATGGAGGAGAGAGAGTGACACGG-------AGGACAGAGAGTGAGATGGAGGAGAGAGAGACAAAGAGGGAGTCAAAGAGAAAAAGAAAGATATAAATAGTAAAAAAAAAAAAACAAAAAAACAAAAAAACAAAAAA  1795
AC203657.2_c41170-33172 GAG--GAGATAGAGCGAGATGGAGGAGAGAGAGTGACACGG-------AGGACAGAGAGTGAGATGGAGGAGAGAGAGACAAAGAGGGAGTCAAAGAGAAAAAGAAAGATATAAATAGTAAAAAAAAAAAAACAAAAAAACAAAAAAACAAAAAA  1795
AC241258.1_c31008-23012 GAG--GAGATAGAGCGAGATGGAGGAGAGAGAGTGACACGG-------AGGACAGAGAGTGAGATGGAGGAGAGAGAGACAAAGAGGGAGTCAAAGAGAAAAAGAAAGATATAAATAGT--AAAAAAAAAAACAAAAAAACAAAAAAACAAAAAA  1793
AC013759.6_36174-44171  GAG--GAGATAGAGCGAGATGGAGGAGAGAGAGTGACACGG-------AGGACAGAGAGTGAGATGGAGGAGAGAGAGACAAAGAGGGAGTCAAAGAGAAAAAGAAAGATATAAATAGT-AAAAAAAAAAAACAAAAAAACAAAAAAACAAAAAA  1794


Consensus_HERV-W        --AATAGTAAAGAAAAAACAGTGTGCCCTATTCCTTTAAAAGCCAGGGTAAATTTAAAACCTATAATTGATAATTGAAGGTCTTCTCCGTGACCCTATAACACTCCAATACCACCTTGTTGTCAGTGTAAACAAGGGCGTAGCCCGAAAGCACTG  1780
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  CCAAAAAAACAAAAAAAAAAGTGTGCCCTATTCCTTTAAAAGCCAGGGTAAATTTCAAACCTATAATTGATAATTGAAGGTCTTCTCCATGACGCTATAATACTCCAATACTACT---TTGTCAGTGTAAACAAGGGAGTAGCCTGAAAACACGG  1947
AC203657.2_c41170-33172 CCAAAAAAACAAAAAAAAAAGTGTGCCCTATTCCTTTAAAAGCCAGGGTAAATTTCAAACCTATAATTGATAATTGAAGGTCTTCTCCATGACGCTATAATACTCCAATACTACT---TTGTCAGTGTAAACAAGGGAGTAGCCTGAAAACACGG  1947
AC241258.1_c31008-23012 CCAAAAAAACAAAAAAAAAAGTGTGCCCTATTCCTTTAAAAGCCAGGGTAAATTTCAAACCTATAATTGATAATTGAAGGTCTTCTCCATGACGCTATAATACTCCAATACTACT---TTGTCAGTGTAAACAAGGGAGTAGCCTGAAAACACGG  1945
AC013759.6_36174-44171  CCAAAAAAACAAAAAAAAAAGTGTGCCCTATTCCTTTAAAAGCCAGGGTAAATTTCAAACCTATAATTGATAATTGAAGGTCTTCTCCATGACGCTATAATACTCCAATACTACT---TTGTCAGTGTAAACAAGGGAGTAGCCTGAAAACACGG  1946


Consensus_HERV-W        AGGCCACTGACAACCCGTAGCCTTCCTATCAAAAATCCTTAACCCAGTAACCCGCGGATGGCCCAAATGCATTCAGTCNGTAGCGGCAACTGCTTTGCTAACAGAAGAAAGTAGAAAAGTAACTTTTAGAGGAAACCTCATTGTGAGCACACCTC  1935
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  AGACCGCTGACAACCCATAGCTTTCCTATCAAAAATCCTTAACCCAGTAACCCGCGG---------AGGCATTCAATCTGTAGCAGCAACTGCTTTGCTAACAAAAGAAAGTAGAAAAGTAACTTTTAGAGGAAATGTCATTGTGAGCACACCTC  2093
AC203657.2_c41170-33172 AGACCGCTGACAACCCATAGCTTTCCTATCAAAAATCCTTAACCCAGTAACCCGCGG---------AGGCATTCAATCTGTAGCAGCAACTGCTTTGCTAACAAAAGAAAGTAGAAAAGTAACTTTTAGAGGAAATGTCATTGTGAGCACACCTC  2093
AC241258.1_c31008-23012 AGACCGCTGACAACCCATAGCTTTCCTATCAAAAATCCTTAACCCAGTAACCCGCGG---------AGGCATTCAATCTGTAGCAGCAACTGCTTTGCTAACAAAAGAAAGTAGAAAAGTAACTTTTAGAGGAAATGTCATTGTGAGCACACCTC  2091
AC013759.6_36174-44171  AGACCGCTGACAACCCATAGCTTTCCTATCAAAAATCCTTAACCCAGTAACCCGCGG---------AGGCATTCAATCTGTAGCAGCAACTGCTTTGCTAACAAAAGAAAGTAGAAAAGTAACTTTTAGAGGAAATGTCATTGTGAGCACACCTC  2092


Consensus_HERV-W        ACCAGTTCAGAATTATTCTAAGTCAAAAAAGCAAAAAGGTAGCTTACTAACTCAAAAATCTTAAAGTATGGGGCTATTCTGTTAGAAAAAGGTAATTTAACACCAACCACTGANAATTCCCTTAACCCAGCAGATTTCCTAACAGGGGATTTAAA  2090
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  ACCAGTTCAGAATTATTCTAAGTCAAAAAAGCAAAAAAGTAGCTTACTAACTCAAAAATCTTAAAGTATGGGGCTATTCTGTTAGAAAAAGTTAATTTAACACCAACCACTGATAATTCCCCTAACCCAGCCAATTTCCTAACAGGGGATTTAAA  2248
AC203657.2_c41170-33172 ACCAGTTCAGAATTATTCTAAGTCAAAAAAGCAAAAAAGTAGCTTACTAACTCAAAAATCTTAAAGTATGGGGCTATTCTGTTAGAAAAAGTTAATTTAACACCAACCACTGATAATTCCCCTAACCCAGCCAATTTCCTAACAGGGGATTTAAA  2248
AC241258.1_c31008-23012 ACCAGTTCAGAATTATTCTAAGTCAAAAAAGCAAAAAAGTAGCTTACTAACTCAAAAATCTTAAAGTATGGGGCTATTCTGTTAGAAAAAGTTAATTTAACACCAACCACTGATAATTCCCCTAACCCAGCCAATTTCCTAACAGGGGATTTAAA  2246
AC013759.6_36174-44171  ACCAGTTCAGAATTATTCTAAGTCAAAAAAGCAAAAAAGTAGCTTACTAACTCAAAAATCTTAAAGTATGGGGCTATTCTGTTAGAAAAAGTTAATTTAACACCAACCACTGATAATTCCCCTAACCCAGCCAATTTCCTAACAGGGGATTTAAA  2247


Consensus_HERV-W        TCTTAATTACCATACAAAGGTCCGACCAGACCTAGGAGGAACTCCCTTCAGGACAGGACGATAGATGGTTCCTCCCAGGTGATTGAGGAAAAAAACCACAATGGGTATTCAGTAATTGATAGGGAGACTCTTGTGGAAGCAGAGTTAGAAAAATT  2245
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  TCTTAATTACCATACAAAGGCCTGACCAGACCTAGGAGGAACTCCCTTCAGGACAGGACTATAGATGGTCCCTCCCAGGTGACTGAGG-AAAAAACCACAATGGGTATTCAGTAATTGATAGGGAGACTCTTGTGGAAGCAGAGTTAGAAAAATT  2402
AC203657.2_c41170-33172 TCTTAATTACCATACAAAGGCCTGACCAGACCTAGGAGGAACTCCCTTCAGGACAGGACTATAGATGGTCCCTCCCAGGTGACTGAGG-AAAAAACCACAATGGGTATTCAGTAATTGATAGGGAGACTCTTGTGGAAGCAGAGTTAGAAAAATT  2402
AC241258.1_c31008-23012 TCTTAATTACCATACAAAGGCCTGACCAGACCTAGGAGGAACTCCCTTCAGGACAGGACTATAGATGGTCCCTCCCAGGTGACTGAGG-AAAAAACCACAATGGGTATTCAGTAATTGATAGGGAGACTCTTGTGGAAGCAGAGTTAGAAAAATT  2400
AC013759.6_36174-44171  TCTTAATTACCATACAAAGGCCTGACCAGACCTAGGAGGAACTCCCTTCAGGACAGGACTATAGATGGTCCCTCCCAGGTGACTGAGG-AAAAAACCACAATGGGTATTCAGTAATTGATAGGGAGACTCTTGTGGAAGCAGAGTTAGAAAAATT  2401


Consensus_HERV-W        GCCTAATAATTGGTCTCCTCAAACGTGCGAGCTGTTTGCACTCAGCCAAGCCTTAAAGTACTTACAGAATCAAAAGACTATCTCAATCCTGACTCAAAAGGTTACCTACACCCTCTCTGAAACGAATTTGCATAAGAACTGTTGTTTATGGGAAT  2400
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  GCCTAATAATTGGTCTCCTCAAACGTGCAAGCTGTTTGCACTCAGCCAAGCCTTAAAGTACTTACAGAATCAAAAGACTATCTCAGTCCTGACTCAAAACCTTACTTACACCTTCTCTGAAACGAATTTGCATAAAAACTGTTGTTTATGGGAAT  2557
AC203657.2_c41170-33172 GCCTAATAATTGGTCTCCTCAAACGTGCAAGCTGTTTGCACTCAGCCAAGCCTTAAAGTACTTACAGAATCAAAAGACTATCTCAGTCCTGACTCAAAACCTTACTTACACCTTCTCTGAAACGAATTTGCATAAAAACTGTTGTTTATGGGAAT  2557
AC241258.1_c31008-23012 GCCTAATAATTGGTCTCCTCAAACGTGCAAGCTGTTTGCACTCAGCCAAGCCTTAAAGTACTTACAGAATCAAAAGACTATCTCAGTCCTGACTCAAAACCTTACTTACACCTTCTCTGAAACGAATTTGCATAAAAACTGTTGTTTATGGGAAT  2555
AC013759.6_36174-44171  GCCTAATAATTGGTCTCCTCAAACGTGCAAGCTGTTTGCACTCAGCCAAGCCTTAAAGTACTTACAGAATCAAAAGACTATCTCAGTCCTGACTCAAAACCTTACTTACACCTTCTCTGAAACGAATTTGCATAAAAACTGTTGTTTATGGGAAT  2556


Consensus_HERV-W        GCATCTTGATGGGGCAGCTGGGTTGTTATGAAATACTCAGGAACCCAGCCCAGCTCTAGGACTCACCCCTGAGCGCAAAGGCAATGTTGGGCACGCTGGTAAAGGACCACTAGAATCCAGCAGCCCGGACCCCTTTCTTTGTGGTCAAGAAAGGC  2555
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  GCATCTTGATGGGGCAGGTGGGTTGTTATGAAATACTCAGGAACCTAGCCTGGCTCTAGGACTCACCCCTGAGTGCAAAGGCGATGTTGGACATGCTGGTAAAGGAACACTAGAATCCAGTAGCCCAGACCCCTTTCTTTGTGGTCAAGAGAGGC  2712
AC203657.2_c41170-33172 GCATCTTGATGGGGCAGGTGGGTTGTTATGAAATACTCAGGAACCTAGCCTGGCTCTAGGACTCACCCCTGAGTGCAAAGGCGATGTTGGACATGCTGGTAAAGGAACACTAGAATCCAGTAGCCCAGACCCCTTTCTTTGTGGTCAAGAGAGGC  2712
AC241258.1_c31008-23012 GCATCTTGATGGGGCAGGTGGGTTGTTATGAAATACTCAGGAACCTAGCCTGGCTCTAGGACTCACCCCTGAGTGCAAAGGCGATGTTGGACATGCTGGTAAAGGAACACTAGAATCCAGTAGCCCAGACCCCTTTCTTTGTGGTCAAGAGAGGC  2710
AC013759.6_36174-44171  GCATCTTGATGGGGCAGGTGGGTTGTTATGAAATACTCAGGAACCTAGCCTGGCTCTAGGACTCACCCCTGAGTGCAAAGGCGATGTTGGACATGCTGGTAAAGGAACACTAGAATCCAGTAGCCCAGACCCCTTTCTTTGTGGTCAAGAGAGGC  2711
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Consensus_HERV-W            GGGAAAACAGGTGCAGGACTGCTACATCGGTGAGCGTAACTAATCCGATAAGCAGAGGTCCATGGGTGGTTACGCACCCTGGAAAGGAATAAGCATTAGGACCATAGAGGACGCTCTAGGACTAATGCTCATCGGAAAATGACTAGGGGTGCTGG  2710
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      AGGAAAAGGTGTGCAGGACTGCTACATCGGTGAGCATATGTAATCCGATAAGCAGAGGTCCATAGGTGGTTATGCACCCTGGAAAGGAATAAGCATTAGGACTATAGAGGATGCTCTAGGACTAATGCTCATCGGAAAATGAGTAGGGGTGCTGG  2867
AC203657.2_c41170-33172     AGGAAAAGGTGTGCAGGACTGCTACATCGGTGAGCATATGTAATCCGATAAGCAGAGGTCCATAGGTGGTTATGCACCCTGGAAAGGAATAAGCATTAGGACTATAGAGGATGCTCTAGGACTAATGCTCATCGGAAAATGAGTAGGGGTGCTGG  2867
AC241258.1_c31008-23012     AGGAAAAGGTGTGCAGGACTGCTACATCGGTGAGCATATGTAATCCGATAAGCAGAGGTCCATAGGTGGTTATGCACCCTGGAAAGGAATAAGCATTCGGACTATAGAGGATGCTCTAGGACTAATGCTCATCGGAAAATGAGTAGGGGTGCTGG  2865
AC013759.6_36174-44171      AGGAAAAGGTGTGCAGGACTGCTACATCGGTGAGCATATGTAATCCGATAAGCAGAGGTCCATAGGTGGTTATGCACCCTGGAAAGGAATAAGCATTCGGACTATAGAGGATGCTCTAGGACTAATGCTCATCGGAAAATGAGTAGGGGTGCTGG  2866

                                   Gag
Consensus_HERV-W            CATCCCTATGTTCTTTTTTCAGATGGGAAACGTTCCCCCCAAGGCAAAAACGCCCCTAAGATGTATTCTGGAGAATTGGGACCAATTTGACCCTCAGACGCTAAGAAAGAAACGACTTATATTCTTCTGCAGTACCGCCTGGCCACGATATCCTC  2865
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      CATCCCTATGTTCTTTTTTCAGATGGGAAGTGTT-CCCCCAAGGCAAAAATGCCCCTAAGATGTATTCTGGAGAATTGGGACCAATTTGACCCTCAGACTCTAAGAAAGAAATGACTTACATTCTTCTGCAGTACCGCCTGGCCATGATATCCTC  3021
AC203657.2_c41170-33172     CATCCCTATGTTCTTTTTTCAGATGGGAAGTGTT-CCCCCAAGGCAAAAATGCCCCTAAGATGTATTCTGGAGAATTGGGACCAATTTGACCCTCAGACTCTAAGAAAGAAATGACTTACATTCTTCTGCAGTACCGCCTGGCCATGATATCCTC  3021
AC241258.1_c31008-23012     CATCCCTATGTTCTTTTTTCAGATGGGAAGTGTT-CCCCCAAGGCAAAAATGCCCCTAAGATGTATTCTGGAGAATTGGGACCAATTTGACCCTCAGACTCTAAGAAAGAAATGACTTACATTCTTCTGCAGTACCGCCTGGCCATGATATCCTC  3019
AC013759.6_36174-44171      CATCCCTATGTTCTTTTTTCAGATGGGAAGTGTT-CCCCCAAGGCAAAAATGCCCCTAAGATGTATTCTGGAGAATTGGGACCAATTTGACCCTCAGACTCTAAGAAAGAAATGACTTACATTCTTCTGCAGTACCGCCTGGCCATGATATCCTC  3020

Consensus_HERV-W            TTCAAGGGGGAGAAACCTGGCCTCCTGAGGGAAGTATAAATTATAACACCATCTTACAGCTAGACCTCTTTTGTAGAAAAGAAGGCAAATGGAGTGAAGTGCCATATGTACAAACTTTCTTTTCATTAAGAGACAACTCGCAATTATGTAAAAAG  3020
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      TTCAAGGGGGAGAAACCTGGCCTCCTGAGGGAAGTATAAATTATAACACCATCTTACAGCTAGACCTCTTTTGTAGAAAAGAAGGCAAATGGAGTGAATTGCCATATGTACAAACTTTCTTTTCATTAAGAGACAACTCGCAATTATGTAGAAAG  3176
AC203657.2_c41170-33172     TTCAAGGGGGAGAAACCTGGCCTCCTGAGGGAAGTATAAATTATAACACCATCTTACAGCTAGACCTCTTTTGTAGAAAAGAAGGCAAATGGAGTGAATTGCCATATGTACAAACTTTCTTTTCATTAAGAGACAACTCGCAATTATGTAGAAAG  3176
AC241258.1_c31008-23012     TTCAAGGGGGAGAAACCTGGCCTCCTGAGGGAAGTATAAATTATAACACCATCTTACAGCTAGACCTCTTTTGTAGAAAAGAAGGCAAATGGAGTGAATTGCCATATGTACAAACTTTCTTTTCATTAAGAGACAACTCGCAATTATGTAGAAAG  3174
AC013759.6_36174-44171      TTCAAGGGGGAGAAACCTGGCCTCCTGAGGGAAGTATAAATTATAACACCATCTTACAGCTAGACCTCTTTTGTAGAAAAGAAGGCAAATGGAGTGAATTGCCATATGTACAAACTTTCTTTTCATTAAGAGACAACTCGCAATTATGTAGAAAG  3175

Consensus_HERV-W            TGTGATTTATGCCCTACAGGAAGCCCTCAGAGTCTACCTCCCTACCCCAGCGTCCCCCCGACTCCTTCCCCAACTAATAAGGACCCCCCTTCAACCCAAACGGTCCAAAAGGAGATAGACAAAGGGGTAAACAATGAACCAAAGAGTGCCAATAT  3175
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      TGTGATTTATGCCCTACAGGAAGCCCTCAGAGTCTACCTCCCTACGCCAGCATCCCCCCAACTCCTTCTCCAACTATTAAGGA-CCCCCTTCAACCCAAATGGTCCAAAA-GAGACAGACAAAGGGGTAAACAATGAACCAAAGAGTGGCAATAT  3329
AC203657.2_c41170-33172     TGTGATTTATGCCCTACAGGAAGCCCTCAGAGTCTACCTCCCTACGCCAGCATCCCCCCAACTCCTTCTCCAACTATTAAGGA-CCCCCTTCAACCCAAATGGTCCAAAA-GAGACAGACAAAGGGGTAAACAATGAACCAAAGAGTGGCAATAT  3329
AC241258.1_c31008-23012     TGTGATTTATGCCCTACAGGAAGCCCTCAGAGTCTACCTCCCTACGCCAGCATCCCCCCAACTCCTTCTCCAACTATTAAGGA-CCCCCTTCAACCCAAATGGTCCAAAA-GAGACAGACAAAGGGGTAAACAATGAACCAAAGAGTGGCAATAT  3327
AC013759.6_36174-44171      TGTGATTTATGCCCTACAGGAAGCCCTCAGAGTCTACCTCCCTACGCCAGCATCCCCCCAACTCCTTCTCCAACTATTAAGGA-CCCCCTTCAACCCAAATGGTCCAAAA-GAGACAGACAAAGGGGTAAACAATGAACCAAAGAGTGGCAATAT  3328

Consensus_HERV-W            TCCCCGATTATGCCCCCTCCAAGCAGTGGGAGGAGGAGAATTCGGCCCAGCCAGAGTGCATGTACCTTTTTCTCTCTCAGACTTGAAGCAAATTAAAATAGACCTAGGTAAATTCTCAGATAACCCTGATGGCTATATTGATGTTTTACAAGGGT  3330
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      TCCCCAATTATGCCGCCTCCAAGCAGTGGGAGGAGGAGAATTCGGCCCAGCCAGAGTGCGTGTACCTTTTTCTCTCTCAGACTTAAAGCAAATTAAAATAGACCTCGGTAAATTCTCAGATAACCCTGATGGCTATATTGATGTTTTACAAGGGT  3484
AC203657.2_c41170-33172     TCCCCAATTATGCCGCCTCCAAGCAGTGGGAGGAGGAGAATTCGGCCCAGCCAGAGTGCGTGTACCTTTTTCTCTCTCAGACTTAAAGCAAATTAAAATAGACCTCGGTAAATTCTCAGATAACCCTGATGGCTATATTGATGTTTTACAAGGGT  3484
AC241258.1_c31008-23012     TCCCCAATTATGCCGCCTCCAAGCAGTGGGAGGAGGAGAATTCGGCCCAGCCAGAGTGCGTGTACCTTTTTCTCTCTCAGACTTAAAGCAAATTAAAATAGACCTCGGTAAATTCTCAGATAACCCTGATGGCTATATTGATGTTTTACAAGGGT  3482
AC013759.6_36174-44171      TCCCCAATTATGCCGCCTCCAAGCAGTGGGAGGAGGAGAATTCGGCCCAGCCAGAGTGCGTGTACCTTTTTCTCTCTCAGACTTAAAGCAAATTAAAATAGACCTCGGTAAATTCTCAGATAACCCTGATGGCTATATTGATGTTTTACAAGGGT  3483

Consensus_HERV-W            TAGGACAATCCTTTGATCTGACATGGAGAGATATAATGTTACTGCTAAATCAGACACTAACCCCAAATGAGAGAAGTGCCGCCATAACTGCAGCCCGAGAGTTTGGCGATCTCTGGTATCTCAGTCAGGTCAATGATAGGATGACAACAGAGGAA  3485
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      TAGGACAATGCTTTGATCTGACTTGGAGAGATATAATGTTACTGCTAAATCAGACACTAACCCCAAATGAAAAAAGTGCCGTCATAACTGCAGCCCGAGAGTTTGGCAATCTCTTGTATCTCAGTCAGGTCAATGATAGGATGACAACAGAGGAA  3639
AC203657.2_c41170-33172     TAGGACAATGCTTTGATCTGACTTGGAGAGATATAATGTTACTGCTAAATCAGACACTAACCCCAAATGAAAAAAGTGCCGTCATAACTGCAGCCCGAGAGTTTGGCAATCTCTTGTATCTCAGTCAGGTCAATGATAGGATGACAACAGAGGAA  3639
AC241258.1_c31008-23012     TAGGACAATGCTTTGATCTGACTTGGAGAGATATAATGTTACTGCTAAATCAGACACTAACCCCAAATGAAAAAAGTGCCGTCATAACTGCAGCCCGAGAGTTTGGCAATCTCTTGTATCTCAGTCAGGTCAATGATAGGATGACAACAGAGGAA  3637
AC013759.6_36174-44171      TAGGACAATGCTTTGATCTGACTTGGAGAGATATAATGTTACTGCTAAATCAGACACTAACCCCAAATGAAAAAAGTGCCGTCATAACTGCAGCCCGAGAGTTTGGCAATCTCTTGTATCTCAGTCAGGTCAATGATAGGATGACAACAGAGGAA  3638

Consensus_HERV-W            AGAGAACGATTCCCCACAGGCCAGCAGGCAGTTCCCAGTGTAGACCCTCACTGGGACACAGAATCAGAACATGGAGATTGGTGCCGCAGACATTTGCTAACTTGCGTGCTAGAAGGACTAAGGAAAACTAGGAAGAAGCCTATGAATTATTCAAT  3640
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      --AGAATGATTCCCCACAGGCCAGCAGGCAGTTCCCAGTGTAGACCCTCATTGAGACACAGAATCAGAACATGGAGATTGGTGCCGCAGACATTTGCCAACTTGCATGCTAGAAGGACTAAGGAAAATTAGGAAGAAGCCTATGAATTATTCAAT  3792
AC203657.2_c41170-33172     --AGAATGATTCCCCACAGGCCAGCAGGCAGTTCCCAGTGTAGACCCTCATTGAGACACAGAATCAGAACATGGAGATTGGTGCCGCAGACATTTGCCAACTTGCATGCTAGAAGGACTAAGGAAAATTAGGAAGAAGCCTATGAATTATTCAAT  3792
AC241258.1_c31008-23012     --AGAATGATTCCCCACAGGCCAGCAGGCAGTTCCCAGTGTAGACCCTCATTGAGACACAGAATCAGAACATGGAGATTGGTGCCGCAGACATTTGCCAACTTGCATGCTAGAAGGACTAAGGAAAATTAGGAAGAAGCCTATGAATTATTCAAT  3790
AC013759.6_36174-44171      --AGAATGATTCCCCACAGGCCAGCAGGCAGTTCCCAGTGTAGACCCTCATTGAGACACAGAATCAGAACATGGAGATTGGTGCCGCAGACATTTGCCAACTTGCATGCTAGAAGGACTAAGGAAAATTAGGAAGAAGCCTATGAATTATTCAAT  3791

Consensus_HERV-W            GATGTCCACTATAACACAGGGAAAGGAAGAAAATCCTACTGCCTTTCTGGAGAGACTAAGGGAGGCATTGAGGAAGCATACCTCTCTGTCACCTGACTCTATTGAAGGCCAACTAATCTTAAAGGATAAGTTTATCACTCAGTCAGCTGCAGACA  3795
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      GATGTCCACTATAACACAGGGAAAGGAAGAAAATCCTACTGCCTTTCTGGAGAGACTAAGGGAGGCATTGAGGAAGCATACCTCCCTGTCACCTGACTCTATTGAAGGCCAACCAATCTTAAAGGATAAGTTTATCACTCAGTCAGCTGCAGACA  3947
AC203657.2_c41170-33172     GATGTCCACTATAACACAGGGAAAGGAAGAAAATCCTACTGCCTTTCTGGAGAGACTAAGGGAGGCATTGAGGAAGCATACCTCCCTGTCACCTGACTCTATTGAAGGCCAACCAATCTTAAAGGATAAGTTTATCACTCAGTCAGCTGCAGACA  3947
AC241258.1_c31008-23012     GATGTCCACTATAACACAGGGAAAGGAAGAAAATCCTACTGCCTTTCTGGAGAGACTAAGGGAGGCATTGAGGAAGCATACCTCCCTGTCACCTGACTCTATTGAAGGCCAACCAATCTTAAAGGATAAGTTTATCACTCAGTCAGCTGCAGACA  3945
AC013759.6_36174-44171      GATGTCCACTATAACACAGGGAAAGGAAGAAAATCCTACTGCCTTTCTGGAGAGACTAAGGGAGGCATTGAGGAAGCATACCTCCCTGTCACCTGACTCTATTGAAGGCCAACCAATCTTAAAGGATAAGTTTATCACTCAGTCAGCTGCAGACA  3946

Consensus_HERV-W            TTAGAAAAAAACTTCAAAAGTCCGCCTTAGGCCCGGAGCAAAACTTAGAAACCCTATTGAACTTGGCAACCTCGGTTTTTTATAATAGAGATCAGGAGGAGCAGGCGGAACGGGACAAACGGGATTAAAAAAAAGGCCACCGCTTTAGTCATGGC  3950
chr18_50449131-50449934     -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556      TTAGAAAAAAACTTCAAAAGTCTGCCTTAGGCCCGGAGCGAAACTTAGAAACCCTGTTGAACTTGGCAACCTCAGTTTTTTATAATAGAGATCAGGAGGAGCAGGTAGAATGGGACAAACAGGATTTTAAAAAAGGCCACCGCTTTACTCATGGC  4102
AC203657.2_c41170-33172     TTAGAAAAAAACTTCAAAAGTCTGCCTTAGGCCCGGAGCGAAACTTAGAAACCCTGTTGAACTTGGCAACCTCAGTTTTTTATAATAGAGATCAGGAGGAGCAGGTAGAATGGGACAAACAGGATTTTAAAAAAGGCCACCGCTTTACTCATGGC  4102
AC241258.1_c31008-23012     TTAGAAAAAAACTTCAAAAGTCTGCCTTAGGCCCGGAGCGAAACTTAGAAACCCTGTTGAACTTGGCAACCTCAGTTTTTTATAATAGAGATCAGGAGGAGCAGGTAGAATGGGACAAACAGGATTTTAAAAAAGGCCACCGCTTTACTCATGGC  4100
AC013759.6_36174-44171      TTAGAAAAAAACTTCAAAAGTCTGCCTTAGGCCCGGAGCGAAACTTAGAAACCCTGTTGAACTTGGCAACCTCAGTTTTTTATAATAGAGATCAGGAGGAGCAGGTAGAATGGGACAAACAGGATTTTAAAAAAGGCCACCGCTTTACTCATGGC  4101
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Consensus_HERV-W        CCTCAGGCAAGCGGACTTTGGAGGCTCTGGAAAAGGGAAAGGCTGGGCAAATCGAATGCCTAATAGGGCTTGCTTCCAGTGCGGTCTACAAGGACACTTTAAAAAAGATTGTCCAAGTAGAAATAAGCCGCCCCCTCGTCCATGCCCCTTATGTC  4105
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  CCACAGGCAAGCGGACTTTGGAGGCTCTGGAAAAGGGAAAAGCTGGGCAAATCGAATACCTAATAGGGCTTGCTTCCAGTGTGGTCTACAAGGACACTTTAAAAAAGATTGTCCAAGTAGAAGTAAGCTGCCCCCTCTTCCATGCCCCTTATGTT  4257
AC203657.2_c41170-33172 CCACAGGCAAGCGGACTTTGGAGGCTCTGGAAAAGGGAAAAGCTGGGCAAATCGAATACCTAATAGGGCTTGCTTCCAGTGTGGTCTACAAGGACACTTTAAAAAAGATTGTCCAAGTAGAAGTAAGCTGCCCCCTCTTCCATGCCCCTTATGTT  4257
AC241258.1_c31008-23012 CCACAGGCAAGCGGACTTTGGAGGCTCTGGAAAAGGGAAAAGCTGGGCAAATCGAATACCTAATAGGGCTTGCTTCCAGTGTGGTCTACAAGGACACTTTAAAAAAGATTGTCCAAGTAGAAGTAAGCTGCCCCCTCTTCCATGCCCCTTATGTT  4255
AC013759.6_36174-44171  CCACAGGCAAGCGGACTTTGGAGGCTCTGGAAAAGGGAAAAGCTGGGCAAATCGAATACCTAATAGGGCTTGCTTCCAGTGTGGTCTACAAGGACACTTTAAAAAAGATTGTCCAAGTAGAAGTAAGCTGCCCCCTCTTCCATGCCCCTTATGTT  4256


Consensus_HERV-W        AAGGGAATCACTGGAAGGCCCACTGCCCCAGGGGACGAAGGTCCTCTGAGTCAGAAGCCACTAACCAGATGATCCAGCAGCAGGACTGAGGGTGCCCGGGGCAAGCGCCAGCCCATGCCATCACCCTCACAGAGCCCCGGGTATGCTTGACCATT  4260
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  AAGGGAATCACTGGAAGGCCCACTGCCCCAGGGGATGAAGTTCCTTTGAGTCAGAAGTCACTAACCAGATGACCCAGCAGCAGGACTGAGGGTGTCTGGGGCAAGCACCAGCCCATGCCATCACCCTCACAGAGCCCCGGGTATGCTTGACCATC  4412
AC203657.2_c41170-33172 AAGGGAATCACTGGAAGGCCCACTGCCCCAGGGGATGAAGTTCCTTTGAGTCAGAAGTCACTAACCAGATGACCCAGCAGCAGGACTGAGGGTGTCTGGGGCAAGCACCAGCCCATGCCATCACCCTCACAGAGCCCCGGGTATGCTTGACCATC  4412
AC241258.1_c31008-23012 AAGGGAATCACTGGAAGGCCCACTGCCCCAGGGGATGAAGTTCCTTTGAGTCAGAAGTCACTAACCAGATGACCCAGCAGCAGGACTGAGGGTGTCTGGGGCAAGCACCAGCCCATGCCATCACCCTCACAGAGCCCCGGGTATGCTTGACCATC  4410
AC013759.6_36174-44171  AAGGGAATCACTGGAAGGCCCACTGCCCCAGGGGATGAAGTTCCTTTGAGTCAGAAGTCACTAACCAGATGACCCAGCAGCAGGACTGAGGGTGTCTGGGGCAAGCACCAGCCCATGCCATCACCCTCACAGAGCCCCGGGTATGCTTGACCATC  4411


Consensus_HERV-W        GAGGGCCAGGAGGTTAACTGTCTCCTGGACACTGGCGCGGCCTTCTCAGTCTTACTCTCCTGTCCCGGACAACTGTCCTCCAGATCTGTCACTATCCGAGGGGTCCTAGGACAGCCAGTCACTAGATACTTCTCCCAGCCACTAAGTTGTGACTG  4415
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  AAGGGCCAGGAGGTTAACTGTCTCCTGGACACTGGTGCAGCCTTCTCAGTCTTACTCTCCTGTCCTGGACAACTGTCATCCAGATCTGTCACTATCCAAGGGGTGCTAGGACAGCCAGTCACTAGATACTTCTCCCAGCCACTAAGTCATGGCTG  4567
AC203657.2_c41170-33172 AAGGGCCAGGAGGTTAACTGTCTCCTGGACACTGGTGCAGCCTTCTCAGTCTTACTCTCCTGTCCTGGACAACTGTCATCCAGATCTGTCACTATCCAAGGGGTGCTAGGACAGCCAGTCACTAGATACTTCTCCCAGCCACTAAGTCATGGCTG  4567
AC241258.1_c31008-23012 AAGGGCCAGGAGGTTAACTGTCTCCTGGACACTGGTGCAGCCTTCTCAGTCTTACTCTCCTGTCCTGGACAACTGTCATCCAGATCTGTCACTATCCAAGGGGTGCTAGGACAGCCAGTCACTAGATACTTCTCCCAGCCACTAAGTCATGGCTG  4565
AC013759.6_36174-44171  AAGGGCCAGGAGGTTAACTGTCTCCTGGACACTGGTGCAGCCTTCTCAGTCTTACTCTCCTGTCCTGGACAACTGTCATCCAGATCTGTCACTATCCAAGGGGTGCTAGGACAGCCAGTCACTAGATACTTCTCCCAGCCACTAAGTCATGGCTG  4566

                                                            Pol
Consensus_HERV-W        GGGAACTTTACTCTTTTCACATGCTTTTCTAATTATGCCTGAAAGCCCCACTCCCTTGTTAGGGAGAGACATTCTAGCAAAAGCAGGGGCCATTATACACCTGAACATAGGAGAAGGAACACCCGTTTGTTGTCCCCTGCTTGAGGAAGGAATTA  4570
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  GGGAACTTTACTTTTTTCATATGCTTTTCTAATTATGCCTGAAAGCCCCATTCCCTTGTTAGGGAGAGACATTCTAGCAAAAGCAGGGGCCGTTATATACCTGAACATAGGGGAAAGAACACCCGTTTGTTGTCCCCTGCTTGAGGAAGGAATTA  4722
AC203657.2_c41170-33172 GGGAACTTTACTTTTTTCATATGCTTTTCTAATTATGCCTGAAAGCCCCATTCCCTTGTTAGGGAGAGACATTCTAGCAAAAGCAGGGGCCGTTATACACCTGAACATAGGGGAAAGAACACCCGTTTGTTGTCCCCTGCTTGAGGAAGGAATTA  4722
AC241258.1_c31008-23012 GGGAACTTTACTTTTTTCATATGCTTTTCTAATTATGCCTGAAAGCCCCATTCCCTTGTTAGGGAGAGACATTCTAGCAAAAGCAGGGGCCGTTATACACCTGAACATAGGGGAAAGAACACCCGTTTGTTGTCCCCTGCTTGAGGAAGGAATTA  4720
AC013759.6_36174-44171  GGGAACTTTACTTTTTTCATATGCTTTTCTAATTATGCCTGAAAGCCCCATTCCCTTGTTAGGGAGAGACATTCTAGCAAAAGCAGGGGCCGTTATACACCTGAACATAGGGGAAAGAACACCCGTTTGTTGTCCCCTGCTTGAGGAAGGAATTA  4721


Consensus_HERV-W        ATCCTGAAGTCTGGGCAACAGAAGGACAATATGGACGAGCAAAGAATGCCCGTCCTGTTCAAGTTAAACTAAAGGATTCCGCCTCCTTTCCCTACCAAAGGCAGTACCCCCTTAGACCCGAGGCCCAACAAGGACTCCAAAAGATTGTTAAGGAC  4725
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  ATCCTGAAGTCTGGGCAACAGAAGGACAATATGGATAAGCAAAGAATGCCCATCCTGTTCAAGTTAAACTAAAGGATGCCACCTCCTTTCCCTGCGAAATGCAGGACCCCCTTAGACCTGAGGCCCAACAAGGACTCCAAAAGATTGTTAAGGAC  4877
AC203657.2_c41170-33172 ATCCTGAAGTCTGGGCAACAGAAGGACAATATGGATAAGCAAAGAATGCCCATCCTGTTCAAGTTAAACTAAAGGATGCCACCTCCTTTCCCTGCGAAATGCAGGACCCCCTTAGACCTGAGGCCCAACAAGGACTCCAAAAGATTGTTAAGGAC  4877
AC241258.1_c31008-23012 ATCCTGAAGTCTGGGCAACAGAAGGACAATATGGATAAGCAAAGAATGCCCATCCTGTTCAAGTTAAACTAAAGGATGCCACCTCCTTTCCCTGCGAAATGCAGGACCCCCTTAGACCTGAGGCCCAACAAGGACTCCAAAAGATTGTTAAGGAC  4875
AC013759.6_36174-44171  ATCCTGAAGTCTGGGCAACAGAAGGACAATATGGATAAGCAAAGAATGCCCATCCTGTTCAAGTTAAACTAAAGGATGCCACCTCCTTTCCCTGCGAAATGCAGGACCCCCTTAGACCTGAGGCCCAACAAGGACTCCAAAAGATTGTTAAGGAC  4876


Consensus_HERV-W        CTAAAAGCCCAAG-----GCCTAGTAAAACCATGCAGTAGCCCCTGCAATACTCCAATTTTAGGAGTACAGAAACCCAACGGACAGTGGAGGTTAGTGCAAGATCTCAGGATTATCAATGAGGCCGTTGTCCCTCTATACCCAGCTGTACCTAAC  4875
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  CTAAAAGCCCAAGGCCTAGCCTAGTAAAACCATGCAATAGCCCCTGCAATACTCCAATTTTAGGAGTACAGAAACCCAATGGACAGTGGAGGTTAGTGCAAGATCTCAGGACTATCAATGAGGCTGTTATTCCTCTATACTCAGCTGTACCTAAC  5032
AC203657.2_c41170-33172 CTAAAAGCCCAAGGCCTAGCCTAGTAAAACCATGCAATAGCCCCTGCAATACTCCAATTTTAGGAGTACAGAAACCCAATGGACAGTGGAGGTTAGTGCAAGATCTCAGGACTATCAATGAGGCTGTTATTCCTCTATACTCAGCTGTACCTAAC  5032
AC241258.1_c31008-23012 CTAAAAGCCCAAGGCCTAGCCTAGTAAAACCATGCAATAGCCCCTGCAATACTCCAATTTTAGGAGTACAGAAACCCAATGGACAGTGGAGGTTAGTGCAAGATCTCAGGACTATCAATGAGGCTGTTATTCCTCTATACTCAGCTGTACCTAAC  5030
AC013759.6_36174-44171  CTAAAAGCCCAAGGCCTAGCCTAGTAAAACCATGCAATAGCCCCTGCAATACTCCAATTTTAGGAGTACAGAAACCCAATGGACAGTGGAGGTTAGTGCAAGATCTCAGGACTATCAATGAGGCTGTTATTCCTCTATACTCAGCTGTACCTAAC  5031


Consensus_HERV-W        CCTTATACTCTGCTTTCCCAAATACCAGAGGAAGCAGAGTGGTTTACAGTCCTGGACCTTAAGGATGCCTTTTTCTGCATCCCTGTACATCCTGACTCTCAATTCTTGTTTGCCTTTGAAGATCCTTCGAACCCAACGTCTCAACTCACCTGGAC  5030
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  CCTTATACTCTGCTTTCCCAAATACCAGAGGAAGCAGAGTGGTTTACAGTCCTGGACCTTCAGGATGCCTTTTTCTGCAACCCTATACATCCTGACTCTCAATTCTTGTTTGCCTTTGAAGATCCTTCAAACCCAATGTCTCAACTCACCTGGAC  5187
AC203657.2_c41170-33172 CCTTATACTCTGCTTTCCCAAATACCAGAGGAAGCAGAGTGGTTTACAGTCCTGGACCTTCAGGATGCCTTTTTCTGCAACCCTATACATCCTGACTCTCAATTCTTGTTTGCCTTTGAAGATCCTTCAAACCCAATGTCTCAACTCACCTGGAC  5187
AC241258.1_c31008-23012 CCTTATACTCTGCTTTCCCAAATACCAGAGGAAGCAGAGTGGTTTACAGTCCTGGACCTTCAGGATGCCTTTTTCTGCAACCCTATACATCCTGACTCTCAATTCTTGTTTGCCTTTGAAGATCCTTCAAACCCAATGTCTCAACTCACCTGGAC  5185
AC013759.6_36174-44171  CCTTATACTCTGCTTTCCCAAATACCAGAGGAAGCAGAGTGGTTTACAGTCCTGGACCTTCAGGATGCCTTTTTCTGCAACCCTATACATCCTGACTCTCAATTCTTGTTTGCCTTTGAAGATCCTTCAAACCCAATGTCTCAACTCACCTGGAC  5186


Consensus_HERV-W        TGTTTTACCCCAAGGGTTCAGGGATAGCCCCCATCTATTTGGCCAGGCATTAGCCCAAGACTTGAGCCAGTTCTCATACCTGGACACTCTTGTCCTTCGGTACGTGGATGATTTACTTTTAGCCGCCCGTTCAGAAACCTTGTGCCATCAAGCCA  5185
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  TGTTTTACCCCAAGGGTTCAGGGATAGCCCCCATCTATTTGGCCAGACATTAGCCCAAGACTTGAGCCGATTCTCATACTTGGACACTCTTGTCCTTCGGTACGTGGATGATTTACTTTTAGCCGCCCATTCAGAAACCTTGTGCCATCAAGCCA  5342
AC203657.2_c41170-33172 TGTTTTACCCCAAGGGTTCAGGGATAGCCCCCATCTATTTGGCCAGACATTAGCCCAAGACTTGAGCCGATTCTCATACTTGGACACTCTTGTCCTTCGGTACGTGGATGATTTACTTTTAGCCGCCCATTCAGAAACCTTGTGCCATCAAGCCA  5342
AC241258.1_c31008-23012 TGTTTTACCCCAAGGGTTCAGGGATAGCCCCCATCTATTTGGCCAGACATTAGCCCAAGACTTGAGCCGATTCTCATACTTGGACACTCTTGTCCTTCGGTACGTGGATGATTTACTTTTAGCCGCCCATTCAGAAACCTTGTGCCATCAAGCCA  5340
AC013759.6_36174-44171  TGTTTTACCCCAAGGGTTCAGGGATAGCCCCCATCTATTTGGCCAGACATTAGCCCAAGACTTGAGCCGATTCTCATACTTGGACACTCTTGTCCTTCGGTACGTGGATGATTTACTTTTAGCCGCCCATTCAGAAACCTTGTGCCATCAAGCCA  5341


Consensus_HERV-W        CCCAAGCGCTCTTAAATTTCCTCGCTACCTGTGGCTACAAGGTTTCCAAACCAAAGGCTCAGCTCTGCTCACAGCAGGTTAAATACTTAGGGCTAAAATTATCCAAAGGCACCAGGGCCCTCAGTGAGGAACGTATCCAGCCTATACTGGCTTAT  5340
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------   260
AC241669.2_12558-20556  CCCAAGTGCTCTTAAATTTCCTTGCTACCTGTGGCTACAGGGTTTCCAAACCAAAGGCTCAGCTCAGCTCATAGCAGGTTAAATCCTTAGGGCTAAAAT--------------------------------------------------------  5441
AC203657.2_c41170-33172 CCCAAGTGCTCTTAAATTTCCTTGCTACCTGTGGCTACAGGGTTTCCAAACCAAAGGCTCAGCTCAGCTCATAGCAGGTTAAATCCTTAGGGCTAAAAT--------------------------------------------------------  5441
AC241258.1_c31008-23012 CCCAAGTGCTCTTAAATTTCCTTGCTACCTGTGGCTACAGGGTTTCCAAACCAAAGGCTCAGCTCAGCTCATAGCAGGTTAAATCCTTAGGGCTAAAAT--------------------------------------------------------  5439
AC013759.6_36174-44171  CCCAAGTGCTCTTAAATTTCCTTGCTACCTGTGGCTACAGGGTTTCCAAACCAAAGGCTCAGCTCAGCTCATAGCAGGTTAAATCCTTAGGGCTAAAAT--------------------------------------------------------  5440
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Consensus_HERV-W        CCTCATCCCAAAACCCTAAAGCAACTAAGAGGGTTCCTTGGCATAACAGGTTTCTGCCGAATATGGATTCCCAGGTACGGCGAAATAGCCAGGCCATTATATACACTAATTAAGGAAACTCAGAAAGCCAATACCCATTTAGTAAGATGGACACC 5495
chr18_50449131-50449934 -----------------------------------------------------------------------------------------------------------------------------------------------------------  260
AC241669.2_12558-20556  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        TGAAGCAGAAGCGGCTTTCCAGGCCCTAAAGAAGGCCCTAACCCAAGCCCCAGTGTTAAGCTTGCCAACGGGGCAAGACTTTTCTTTATATGTCACAGAAAAAACAGGAATAGCTCTAGGAGTCCTTACACAGGTCCGAGGGACGAGCTTGCAAC 5650
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        CCGTGGCATACCTGAGTAAGGAAATTGATGTAGTGGCAAAGGGTTGGCCTCATTGTTTACGGGTAGTGGCGGCAGTAGCAGTCTTAGTATCTGAAGCAGTTAAAATAATACAGGGAAGAGATCTTACTGTGTGGACATCTCATGATGTGAACGGC 5805
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AC241669.2_12558-20556  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        ATACTCACTGCTAAAGGAGACTTGTGGCTGTCAGACAACCGTTTACTTAAATATCAGGCTCTATTACTTGAAGGGCCAGTGCTGCGACTGCGCACTTGTGCAACTCTTAACCCAGCCACATTTCTTCCAGACAATGAAGAAAAGATAGAACATAA 5960
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        CTGTCAACAAGTAATTGCTCAAACCTACGCCGCTCGAGGGGACCTTTTAGAGGTTCCCTTGACTGATCCCGACCTCAACTTGTATACTGATGGAAGTTCCTTTGTAGAAAAAGGACTTCGAAAAGCGGGGTATGCAGTGGTCAGTGATAATGGAA 6115
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        TACTTGAAAGTAATCCCCTCACTCCAGGAACTAGTGCTCAGCTGGCAGAACTAATAGCCCTCACTCGGGCACTAGAATTAGGAGAAGGAAAAAGGGTAAATATATATACAGACTCTAAGTATGCTTACCTAGTCCTCCATGCCCACGCAGCAATA 6270
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AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        TGGAGAGAAAGGGAATTCCTAACTTCCGAGGGAACACCTATCAAACATCAGGAAGCCATTAGGAGATTATTATTGGCTGTACAGAAACCTAAAGAGGTGGCAGTCTTACACTGCCGGGGTCATCAGAAAGGAAAGGAAAGGGAAATAGAAGGGAA 6425
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        CCGCCAAGCGGATATTGAAGCCAAAAGAGCCGCAAGGCAGGACCCTCCATTAGAAATGCTTATAGAAGGACCCCTAGTATGGGGTAATCCCCTCCGGGAAACCAAGCCCCAGTACTCAGCAGAAGAAATAGAATGGGGAACCTCACGAGGACATA 6580
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        GTTTCCTCCCCTCAGGATGGCTAGCCACCGAAGAAGGAAAAATACTTTTGCCTGCAGCTAACCAATGGAAATTACTTAAAACCCTTCACCAAACCTTTCACTTAGGCATTGATAGCACCCATCAGATGGCCAAATCATTATTTACTGGACCAGGC 6735
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AC241669.2_12558-20556  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
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AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440
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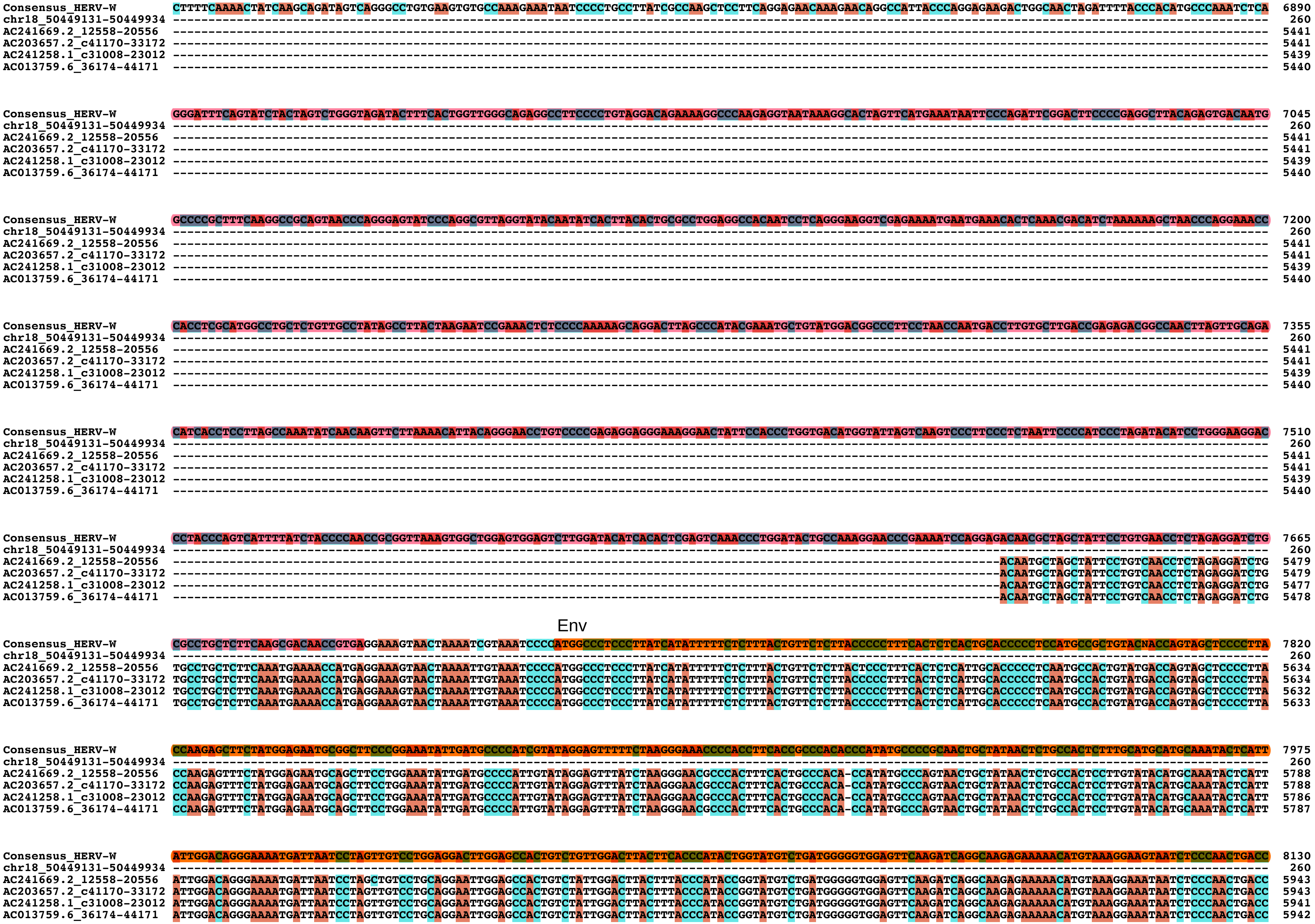

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Consensus_HERV-W        CTTTTCAAAACTATCAAGCAGATAGTCAGGGCCTGTGAAGTGTGCCAAAGAAATAATCCCCTGCCTTATCGCCAAGCTCCTTCAGGAGAACAAAGAACAGGCCATTACCCAGGAGAAGACTGGCAACTAGATTTTACCCACATGCCCAAATCTCA 6890
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        GGGATTTCAGTATCTACTAGTCTGGGTAGATACTTTCACTGGTTGGGCAGAGGCCTTCCCCTGTAGGACAGAAAAGGCCCAAGAGGTAATAAAGGCACTAGTTCATGAAATAATTCCCAGATTCGGACTTCCCCGAGGCTTACAGAGTGACAATG 7045
chr18_50449131-50449934 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 260
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        GCCCCGCTTTCAAGGCCGCAGTAACCCAGGGAGTATCCCAGGCGTTAGGTATACAATATCACTTACACTGCGCCTGGAGGCCACAATCCTCAGGGAAGGTCGAGAAAATGAATGAAACACTCAAACGACATCTAAAAAAGCTAACCCAGGAAACC 7200
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        CACCTCGCATGGCCTGCTCTGTTGCCTATAGCCTTACTAAGAATCCGAAACTCTCCCCAAAAAGCAGGACTTAGCCCATACGAAATGCTGTATGGACGGCCCTTCCTAACCAATGACCTTGTGCTTGACCGAGAGACGGCCAACTTAGTTGCAGA 7355
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        CATCACCTCCTTAGCCAAATATCAACAAGTTCTTAAAACATTACAGGGAACCTGTCCCCGAGAGGAGGGAAAGGAACTATTCCACCCTGGTGACATGGTATTAGTCAAGTCCCTTCCCTCTAATTCCCCATCCCTAGATACATCCTGGGAAGGAC 7510
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AC203657.2_c41170-33172 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5441
AC241258.1_c31008-23012 ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5439
AC013759.6_36174-44171  ----------------------------------------------------------------------------------------------------------------------------------------------------------- 5440

Consensus_HERV-W        CCTACCCAGTCATTTTATCTACCCCAACCGCGGTTAAAGTGGCTGGAGTGGAGTCTTGGATACATCACACTCGAGTCAAACCCTGGATACTGCCAAAGGAACCCGAAAATCCAGGAGACAACGCTAGCTATTCCTGTGAACCTCTAGAGGATCTG 7665
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AC241669.2_12558-20556  ---------------------------------------------------------------------------------------------------------------------ACAATGCTAGCTATTCCTGTCAACCTCTAGAGGATCTG 5479
AC203657.2_c41170-33172 ---------------------------------------------------------------------------------------------------------------------ACAATGCTAGCTATTCCTGTCAACCTCTAGAGGATCTG 5479
AC241258.1_c31008-23012 ---------------------------------------------------------------------------------------------------------------------ACAATGCTAGCTATTCCTGTCAACCTCTAGAGGATCTG 5477
AC013759.6_36174-44171  ---------------------------------------------------------------------------------------------------------------------ACAATGCTAGCTATTCCTGTCAACCTCTAGAGGATCTG 5478

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Consensus_HERV-W        CGCCTGCTCTTCAAGCGACAACCGTGAGGAAAGTAACTAAAATCGTAAATCCCCATGGCCCTCCCTTATCATATTTTTCTCTTTACTGTTCTCTTACCCCCTTTCACTCTCACTGCACCCCCTCCATGCCGCTGTACNACCAGTAGCTCCCCTTA 7820
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AC013759.6_36174-44171  TGCCTGCTCTTCAAATGAAAACCATGAGGAAAGTAACTAAAATTGTAAATCCCCATGGCCCTCCCTTATCATATTTTTCTCTTTACTGTTCTCTTACCCCCTTTCACTCTCATTGCACCCCCTCAATGCCACTGTATGACCAGTAGCTCCCCTTA 5633

Consensus_HERV-W        CCAAGAGCTTCTATGGAGAATGCGGCTTCCCGGAAATATTGATGCCCCATCGTATAGGAGTTTTTCTAAGGGAAACCCCACCTTCACCGCCCACACCCATATGCCCCGCAACTGCTATAACTCTGCCACTCTTTGCATGCATGCAAATACTCATT 7975
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AC241669.2_12558-20556  CCAAGAGTTTCTATGGAGAATGCAGCTTCCTGGAAATATTGATGCCCCATTGTATAGGAGTTTATCTAAGGGAACGCCCACTTTCACTGCCCACA-CCATATGCCCAGTAACTGCTATAACTCTGCCACTCCTTGTATACATGCAAATACTCATT 5788
AC203657.2_c41170-33172 CCAAGAGTTTCTATGGAGAATGCAGCTTCCTGGAAATATTGATGCCCCATTGTATAGGAGTTTATCTAAGGGAACGCCCACTTTCACTGCCCACA-CCATATGCCCAGTAACTGCTATAACTCTGCCACTCCTTGTATACATGCAAATACTCATT 5788
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AC013759.6_36174-44171  CCAAGAGTTTCTATGGAGAATGCAGCTTCCTGGAAATATTGATGCCCCATTGTATAGGAGTTTATCTAAGGGAACGCCCACTTTCACTGCCCACA-CCATATGCCCAGTAACTGCTATAACTCTGCCACTCCTTGTATACATGCAAATACTCATT 5787

Consensus_HERV-W        ATTGGACAGGGAAAATGATTAATCCTAGTTGTCCTGGAGGACTTGGAGCCACTGTCTGTTGGACTTACTTCACCCATACTGGTATGTCTGATGGGGGTGGAGTTCAAGATCAGGCAAGAGAAAAACATGTAAAGGAAGTAATCTCCCAACTGACC 8130
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AC241669.2_12558-20556  ATTGGACAGGGAAAATGATTAATCCTAGCTGTCCTGCAGGAATTGGAGCCACTGTCTATTGGACTTACTTTACCCATACCGGTATGTCTGATGGGGGTGGAGTTCAAGATCAGGCAAGAGAAAAACATGTAAAGGAAATAATCTCCCAACTGACC 5943
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AC013759.6_36174-44171  ATTGGACAGGGAAAATGATTAATCCTAGTTGTCCTGCAGGAATTGGAGCCACTGTCTATTGGACTTACTTTACCCATACCGGTATGTCTGATGGGGGTGGAGTTCAAGATCAGGCAAGAGAAAAACATGTAAAGGAAATAATCTCCCAACTGACC 5942
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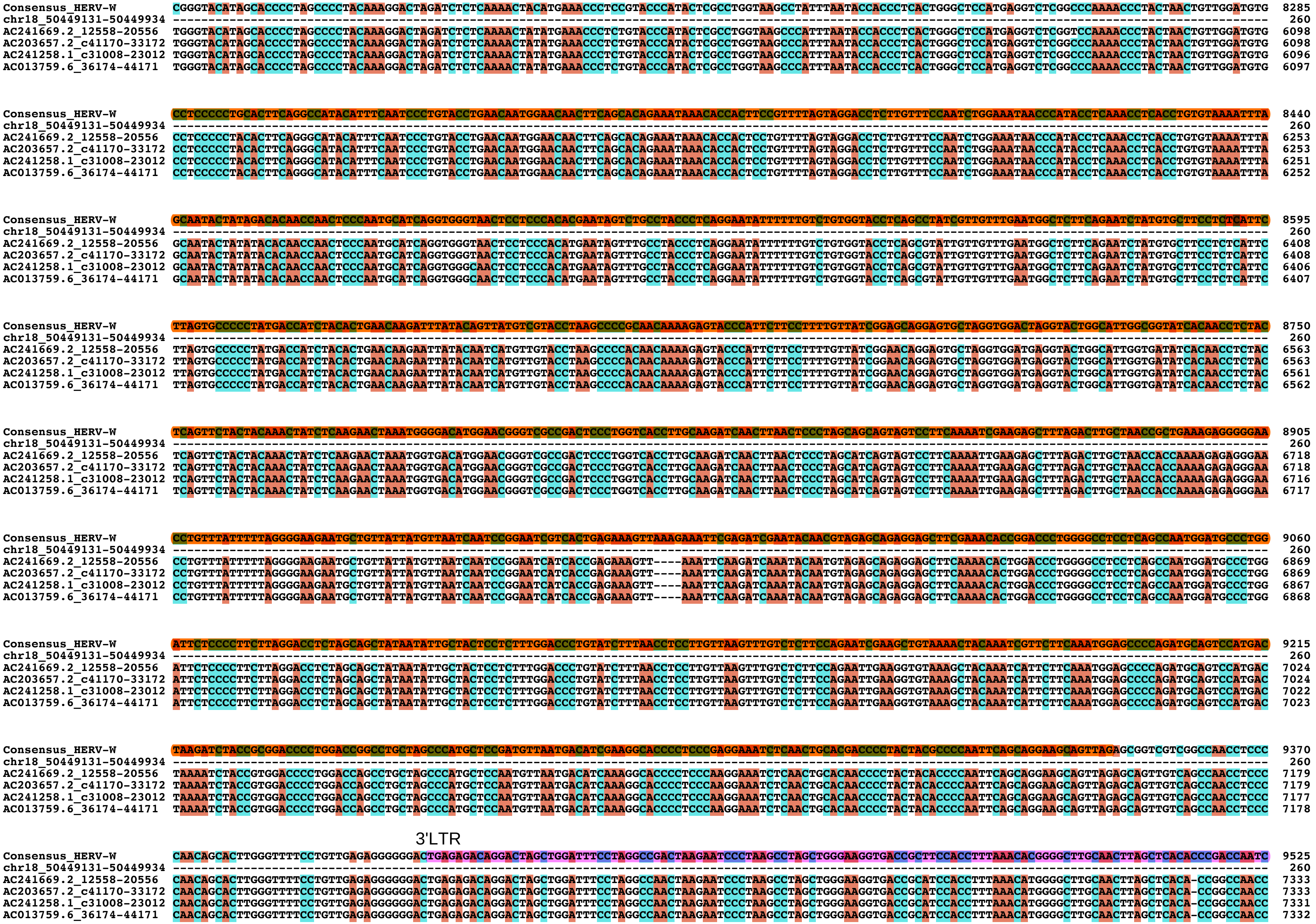

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AC013759.6_36174-44171   TGGGTACATAGCACCCCTAGCCCCTACAAAGGACTAGATCTCTCAAAACTATATGAAACCCTCTGTACCCATACTCGCCTGGTAAGCCCATTTAATACCACCCTCACTGGGCTCCATGAGGTCTCGGCCCAAAACCCTACTAACTGTTGGATGTG  6097


Consensus_HERV-W         CCTCCCCCTGCACTTCAGGCCATACATTTCAATCCCTGTACCTGAACAATGGAACAACTTCAGCACAGAAATAAACACCACTTCCGTTTTAGTAGGACCTCTTGTTTCCAATCTGGAAATAACCCATACCTCAAACCTCACCTGTGTAAAATTTA  8440
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AC241258.1_c31008-23012  CCTCCCCCTACACTTCAGGGCATACATTTCAATCCCTGTACCTGAACAATGGAACAACTTCAGCACAGAAATAAACACCACTCCTGTTTTAGTAGGACCTCTTGTTTCCAATCTGGAAATAACCCATACCTCAAACCTCACCTGTGTAAAATTTA  6251
AC013759.6_36174-44171   CCTCCCCCTACACTTCAGGGCATACATTTCAATCCCTGTACCTGAACAATGGAACAACTTCAGCACAGAAATAAACACCACTCCTGTTTTAGTAGGACCTCTTGTTTCCAATCTGGAAATAACCCATACCTCAAACCTCACCTGTGTAAAATTTA  6252


Consensus_HERV-W         GCAATACTATAGACACAACCAACTCCCAATGCATCAGGTGGGTAACTCCTCCCACACGAATAGTCTGCCTACCCTCAGGAATATTTTTTGTCTGTGGTACCTCAGCCTATCGTTGTTTGAATGGCTCTTCAGAATCTATGTGCTTCCTCTCATTC  8595
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AC241258.1_c31008-23012  GCAATACTATATACACAACCAACTCCCAATGCATCAGGTGGGCAACTCCTCCCACATGAATAGTTTGCCTACCCTCAGGAATATTTTTTGTCTGTGGTACCTCAGCGTATTGTTGTTTGAATGGCTCTTCAGAATCTATGTGCTTCCTCTCATTC  6406
AC013759.6_36174-44171   GCAATACTATATACACAACCAACTCCCAATGCATCAGGTGGGCAACTCCTCCCACATGAATAGTTTGCCTACCCTCAGGAATATTTTTTGTCTGTGGTACCTCAGCGTATTGTTGTTTGAATGGCTCTTCAGAATCTATGTGCTTCCTCTCATTC  6407


Consensus_HERV-W         TTAGTGCCCCCTATGACCATCTACACTGAACAAGATTTATACAGTTATGTCGTACCTAAGCCCCGCAACAAAAGAGTACCCATTCTTCCTTTTGTTATCGGAGCAGGAGTGCTAGGTGGACTAGGTACTGGCATTGGCGGTATCACAACCTCTAC  8750
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Consensus_HERV-W         TCAGTTCTACTACAAACTATCTCAAGAACTAAATGGGGACATGGAACGGGTCGCCGACTCCCTGGTCACCTTGCAAGATCAACTTAACTCCCTAGCAGCAGTAGTCCTTCAAAATCGAAGAGCTTTAGACTTGCTAACCGCTGAAAGAGGGGAA  8905
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AC241258.1_c31008-23012  TCAGTTCTACTACAAACTATCTCAAGAACTAAATGGTGACATGGAACGGGTCGCCGACTCCCTGGTCACCTTGCAAGATCAACTTAACTCCCTAGCATCAGTAGTCCTTCAAAATTGAAGAGCTTTAGACTTGCTAACCACCAAAAGAGAGGGAA  6716
AC013759.6_36174-44171   TCAGTTCTACTACAAACTATCTCAAGAACTAAATGGTGACATGGAACGGGTCGCCGACTCCCTGGTCACCTTGCAAGATCAACTTAACTCCCTAGCATCAGTAGTCCTTCAAAATTGAAGAGCTTTAGACTTGCTAACCACCAAAAGAGAGGGAA  6717


Consensus_HERV-W         CCTGTTTATTTTTAGGGGAAGAATGCTGTTATTATGTTAATCAATCCGGAATCGTCACTGAGAAAGTTAAAGAAATTCGAGATCGAATACAACGTAGAGCAGAGGAGCTTCGAAACACCGGACCCTGGGGCCTCCTCAGCCAATGGATGCCCTGG  9060
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Consensus_HERV-W         ATTCTCCCCTTCTTAGGACCTCTAGCAGCTATAATATTGCTACTCCTCTTTGGACCCTGTATCTTTAACCTCCTTGTTAAGTTTGTCTCTTCCAGAATCGAAGCTGTAAAACTACAAATCGTTCTTCAAATGGAGCCCCAGATGCAGTCCATGAC  9215
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AC013759.6_36174-44171   ATTCTCCCCTTCTTAGGACCTCTAGCAGCTATAATATTGCTACTCCTCTTTGGACCCTGTATCTTTAACCTCCTTGTTAAGTTTGTCTCTTCCAGAATTGAAGGTGTAAAGCTACAAATCATTCTTCAAATGGAGCCCCAGATGCAGTCCATGAC  7023


Consensus_HERV-W         TAAGATCTACCGCGGACCCCTGGACCGGCCTGCTAGCCCATGCTCCGATGTTAATGACATCGAAGGCACCCCTCCCGAGGAAATCTCAACTGCACGACCCCTACTACGCCCCAATTCAGCAGGAAGCAGTTAGAGCGGTCGTCGGCCAACCTCCC  9370
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AC203657.2_c41170-33172  TAAAATCTACCGTGGACCCCTGGACCAGCCTGCTAGCCCATGCTCCAATGTTAATGACATCAAAGGCACCCCTCCCAAGGAAATCTCAACTGCACAACCCCTACTACACCCCAATTCAGCAGGAAGCAGTTAGAGCAGTTGTCAGCCAACCTCCC  7179
AC241258.1_c31008-23012  TAAAATCTACCGTGGACCCCTGGACCAGCCTGCTAGCCCATGCTCCAATGTTAATGACATCAAAGGCACCCCTCCCAAGGAAATCTCAACTGCACAACCCCTACTACACCCCAATTCAGCAGGAAGCAGTTAGAGCAGTTGTCAGCCAACCTCCC  7177
AC013759.6_36174-44171   TAAAATCTACCGTGGACCCCTGGACCAGCCTGCTAGCCCATGCTCCAATGTTAATGACATCAAAGGCACCCCTCCCAAGGAAATCTCAACTGCACAACCCCTACTACACCCCAATTCAGCAGGAAGCAGTTAGAGCAGTTGTCAGCCAACCTCCC  7178

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Consensus_HERV-W         CAACAGCACTTGGGTTTTCCTGTTGAGAGGGGGGACTGAGAGACAGGACTAGCTGGATTTCCTAGGCCGACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCGCTTCCACCTTTAAACACGGGGCTTGCAACTTAGCTCACACCCGACCAATC  9525
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AC013759.6_36174-44171   CAACAGCACTTGGGTTTTCCTGTTGAGAGGGGGGACTGAGAGACAGGACTAGCTGGATTTCCTAGGCCAACTAAGAATCCCTAAGCCTAGCTGGGAAGGTGACCGCATCCACCTTTAAACATGGGGCTTGCAACTTAGCTCACA-CCGGCCAACC  7332
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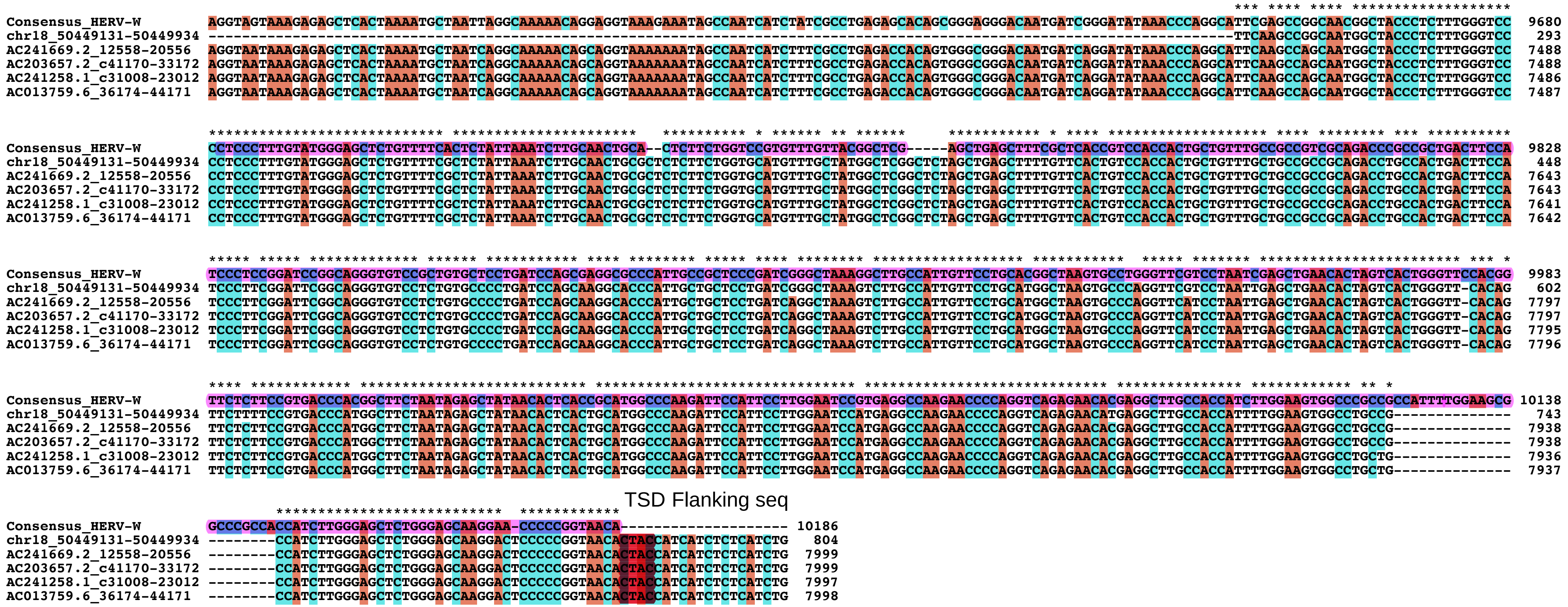

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                                                                                                                                                  *** **** **** *******************
Consensus_HERV-W        AGGTAGTAAAGAGAGCTCACTAAAATGCTAATTAGGCAAAAACAGGAGGTAAAGAAATAGCCAATCATCTATCGCCTGAGAGCACAGCGGGAGGGACAATGATCGGGATATAAACCCAGGCATTCGAGCCGGCAACGGCTACCCTCTTTGGGTCC  9680
chr18_50449131-50449934 --------------------------------------------------------------------------------------------------------------------------TTCAAGCCGGCAATGGCTACCCTCTTTGGGTCC   293
AC241669.2_12558-20556  AGGTAATAAAGAGAGCTCACTAAAATGCTAATCAGGCAAAAACAGCAGGTAAAAAAATAGCCAATCATCTTTCGCCTGAGACCACAGTGGGCGGGACAATGATCAGGATATAAACCCAGGCATTCAAGCCAGCAATGGCTACCCTCTTTGGGTCC  7488
AC203657.2_c41170-33172 AGGTAATAAAGAGAGCTCACTAAAATGCTAATCAGGCAAAAACAGCAGGTAAAAAAATAGCCAATCATCTTTCGCCTGAGACCACAGTGGGCGGGACAATGATCAGGATATAAACCCAGGCATTCAAGCCAGCAATGGCTACCCTCTTTGGGTCC  7488
AC241258.1_c31008-23012 AGGTAATAAAGAGAGCTCACTAAAATGCTAATCAGGCAAAAACAGCAGGTAAAAAAATAGCCAATCATCTTTCGCCTGAGACCACAGTGGGCGGGACAATGATCAGGATATAAACCCAGGCATTCAAGCCAGCAATGGCTACCCTCTTTGGGTCC  7486
AC013759.6_36174-44171  AGGTAATAAAGAGAGCTCACTAAAATGCTAATCAGGCAAAAACAGCAGGTAAAAAAATAGCCAATCATCTTTCGCCTGAGACCACAGTGGGCGGGACAATGATCAGGATATAAACCCAGGCATTCAAGCCAGCAATGGCTACCCTCTTTGGGTCC  7487

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Consensus_HERV-W        CCTCCCTTTGTATGGGAGCTCTGTTTTCACTCTATTAAATCTTGCAACTGCA--CTCTTCTGGTCCGTGTTTGTTACGGCTCG-----AGCTGAGCTTTCGCTCACCGTCCACCACTGCTGTTTGCCGCCGTCGCAGACCCGCCGCTGACTTCCA  9828
chr18_50449131-50449934 CCTCCCTTTGTATGGGAGCTCTGTTTTCGCTCTATTAAATCTTGCAACTGCGCTCTCTTCTGGTGCATGTTTGCTATGGCTCGGCTCTAGCTGAGCTTTTGTTCACTGTCCACCACTGCTGTTTGCTGCCGCCGCAGACCTGCCACTGACTTCCA   448
AC241669.2_12558-20556  CCTCCCTTTGTATGGGAGCTCTGTTTTCGCTCTATTAAATCTTGCAACTGCGCTCTCTTCTGGTGCATGTTTGCTATGGCTCGGCTCTAGCTGAGCTTTTGTTCACTGTCCACCACTGCTGTTTGCTGCCGCCGCAGACCTGCCACTGACTTCCA  7643
AC203657.2_c41170-33172 CCTCCCTTTGTATGGGAGCTCTGTTTTCGCTCTATTAAATCTTGCAACTGCGCTCTCTTCTGGTGCATGTTTGCTATGGCTCGGCTCTAGCTGAGCTTTTGTTCACTGTCCACCACTGCTGTTTGCTGCCGCCGCAGACCTGCCACTGACTTCCA  7643
AC241258.1_c31008-23012 CCTCCCTTTGTATGGGAGCTCTGTTTTCGCTCTATTAAATCTTGCAACTGCGCTCTCTTCTGGTGCATGTTTGCTATGGCTCGGCTCTAGCTGAGCTTTTGTTCACTGTCCACCACTGCTGTTTGCTGCCGCCGCAGACCTGCCACTGACTTCCA  7641
AC013759.6_36174-44171  CCTCCCTTTGTATGGGAGCTCTGTTTTCGCTCTATTAAATCTTGCAACTGCGCTCTCTTCTGGTGCATGTTTGCTATGGCTCGGCTCTAGCTGAGCTTTTGTTCACTGTCCACCACTGCTGTTTGCTGCCGCCGCAGACCTGCCACTGACTTCCA  7642

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Consensus_HERV-W        TCCCTCCGGATCCGGCAGGGTGTCCGCTGTGCTCCTGATCCAGCGAGGCGCCCATTGCCGCTCCCGATCGGGCTAAAGGCTTGCCATTGTTCCTGCACGGCTAAGTGCCTGGGTTCGTCCTAATCGAGCTGAACACTAGTCACTGGGTTCCACGG  9983
chr18_50449131-50449934 TCCCTTCGGATTCGGCAGGGTGTCCTCTGTGCCCCTGATCCAGCAAGGCACCCATTGCTGCTCCTGATCGGGCTAAAGTCTTGCCATTGTTCCTGCATGGCTAAGTGCCCAGGTTCGTCCTAATTGAGCTGAACACTAGTCACTGGGTT-CACAG   602
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AC013759.6_36174-44171  TCCCTTCGGATTCGGCAGGGTGTCCTCTGTGCCCCTGATCCAGCAAGGCACCCATTGCTGCTCCTGATCAGGCTAAAGTCTTGCCATTGTTCCTGCATGGCTAAGTGCCCAGGTTCATCCTAATTGAGCTGAACACTAGTCACTGGGTT-CACAG  7796

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Consensus_HERV-W        TTCTCTTCCGTGACCCACGGCTTCTAATAGAGCTATAACACTCACCGCATGGCCCAAGATTCCATTCCTTGGAATCCGTGAGGCCAAGAACCCCAGGTCAGAGAACACGAGGCTTGCCACCATCTTGGAAGTGGCCCGCCGCCATTTTGGAAGCG 10138
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                                                                                   TSD Flanking seq
                                ***************************  ************
Consensus_HERV-W        GCCCGCCACCATCTTGGGAGCTCTGGGAGCAAGGAA-CCCCCGGTAACA-------------------- 10186
chr18_50449131-50449934 --------CCATCTTGGGAGCTCTGGGAGCAAGGACTCCCCCGGTAACACTACCATCATCTCTCATCTG   804
AC241669.2_12558-20556  --------CCATCTTGGGAGCTCTGGGAGCAAGGACTCCCCCGGTAACACTACCATCATCTCTCATCTG  7999
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AC241258.1_c31008-23012 --------CCATCTTGGGAGCTCTGGGAGCAAGGACTCCCCCGGTAACACTACCATCATCTCTCATCTG  7997
AC013759.6_36174-44171  --------CCATCTTGGGAGCTCTGGGAGCAAGGACTCCCCCGGTAACACTACCATCATCTCTCATCTG  7998
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Additional file 5. Alignment of HERV-W consensus with 18q21.1_W2 solo LTR and provirus. The target site duplications (TSD) are marked in red. The 5' and 3'LTRs are highlighted in pink, and open reading frames for gag, pol and env genes are highlighted in green, light red and orange respectively. The HERV-W consensus sequence is from Repbase (LTR17 and HERV17).