

Supplementary figure 1: Reference sequence of the *SRY* region (GenBank AC215855): 174 bp 5' predicted promoter (green); 1400 bp *SRY* coding exon (blue), and 381 bp 3'UTR (brown). Primers for PCR amplification of the four overlapping segments are underlined and labeled with four different colors.

5' CGTTTG TG TTTGTTAACGGCTAATAGAATTAGGTCATCTGTAGGCTCTGTGGTTTTAAGATCACACTCACATATA
Primer1.F
TTCATATTGATAAAAACAATTCAATTAGTATCCGCTCTGTGCTCCACCTGCATCCTTTTCATTTATAGACCTAATAAAAATA
ATAATGACAAAGTTTGTTTTGTATTATTTTAAGGAGGGGAGAGCCCTCAGCGCTGGGGATTAGAAGTAGGGCACAG
AAACAGTGTGTTATTACTCTGTTATCAGGTTTGTCTTGAGAGTGGATAGGCTGGTTGGGCTTTGGCTGACGGCCCAG
GACACGTTTGAGGGGAGGAGTTGGGGGCGGAGAAATAAGTATTTTATTACAAAAGTTGTAGTAACAAAGCCTCTGCT
AGAATAACCTTGGAAAAGTAAGATAATTTTCCCAACGCTTTATCTTCGCATTTTGTCTACCACCTCCTCTCAACGG
TGCCATCTTAAGCTTCTGCTATGTCCAGAGTATCCAACAGCGATAATTACAGTCTAGCAGGACAGCAACATACCGTT
CTCGGCTCTGGGAGAACCCTCATCCCTACTTTGGACGAGSCAATCCTGGCTCACATTTTCGGAGTGAACAAGAGGAAA
Primer2.F
TGGTAGAGAGAACGGCCAGGACCGTGTCAAACGACCCATGAATGCATTCATGGTG TGG TCTCGTGATCACAGGCGCA
Primer1.R
AGGTCGCTCTAGAGAATCCCCAAGTGCAAAACCTCAGAGATCAGCAAGCGGC TGGGATGCCAGTGGAAAATGCTTACG
GAAGCCGAAAATTGCCATTCCTTCGAGGAGGCACAGAGACTACGGGCTATGCATCAAGAGAAATACCCGGACTATAA
ATATCGACCTCGTCGGAAGGCCAAGATGCCACAGAAAAGTGACAAAACCGCTTCCCGCAGACTCCTCTTCTACTACTGT
GCGGGCAGGCGCACGTACACGTCGACGAGTGGTTGAACCCTTTCACATTCACGGACGACTGTACTGAGGCCACACAG
TCACAAAACGGAGGAGCGGTTAAACCATTTCGCAGCCCGCGAACACAGCTAATTCGGCGCTGCAACAGGAGCGTCACAG
Primer3.F
CAGCACCGCAACCCTGCGTGACAAATCGGGTAACGTTGGCTACGCAGACATACGCAGACGTTCCCTTTCACTGTAATTT
TACCCCTCCGACTTTCTCACGGTGATTTTCTTGATTTCTTACTGGTGGCGGCAGAGTCCCTGTTCCGGCTCTAATTT
Primer2.R
TCGTAATTTCTTCTGGAGCCCCAGCGTATCAACACCAGTGAATTTTGAGTTCC AAGGTCAGCTGTTTTTCTGTTAAT
GGAACAGTTTGTAATCTAATTTTAGTCTTCCAGAGGTTGTCCTTTAAATAGCGCTAAGCATATATTGATACACTAAT
AATCGCCAGCATAGATCACAGAATTCCTAACTCTTTATTTTAAATACTATAAGTCAAAAACATAGTGGAGAGAAGCAT
GCACAAAATTATGCTATGGAAAATTTGTTGCGTTTGTATGGGAAAC TGCGTAGCGTCTACAGTAGTCCCTCTCGAC
Primer4.F
GGTCTGTTCAATGGTCTTTCAGCTACCTTGCGCGTCTTGGTAAACTGCACATAATTAACGCATGGAATGTAATTC
Primer3.R
TTTCCGTGTGATAGTTTATGTTACCTCCCTCCCGCTGTGAGAAACCAGTCTTGCGGCCCTTTGCTATTCAATTC
TTTTACTCCGCACAAAACCTGAGAGCTTCGATGCGCTGTGAACCGGTTATATCTCTATCTGGTAAAATAAAATGTTT
ATTTAACTCGTGATCATTTTGTATATCCTTATGAGACTCATAGTTAGTTTTCCTGTTTTTCCCAGAACTTTCTTTTG
ACAATGGCAATGTACCTGTTTCCATTGCCGCTAACTTTTAACTTTACGGAGGAAAAATAACGAATGCTGAGAAATA
TGAACGTGAGATTATGGGAGTGGGACACCC-3'
Primer4.R

Supplementary fig 2: Alignment of 1,955 bp sequences in *SRY* region from the i(Yq), and two normal Y chromosomes (male control and reference sequence). Discrepancies are highlighted red and the consensus sequence is shown in blue.

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CGTT-GTGTTTGTAAACGGCTAATAGAATTAGGTCTGTAGGCTCTGTGGTTTTAAGATCACACTCACATATATTCAT Consensus
-----+-----+-----+-----+-----+-----+-----+-----+
          10         20         30         40         50         60         70         80
-----+-----+-----+-----+-----+-----+-----+-----+
1  CGTTTGTGTTTGTAAACGGCTAATAGAATTAGGTCATCTGTAGGCTCTGTGGTTTTAAGATCACACTCACATATATTCAT Reference Seq
1  CGTT-GTGTTTGTAAACGGCTAATAGAATTAGGTACTCTGTAGGCTCTGTGGTTTTAAGATCACACTCACATATATTCAT iYq Horse
1  CGTT-GTGTTTGTAAACGGCTAATAGAATTAGGTTATCTGTAGGCTCTGTGGTTTTAAGATCACACTCACATATATTCAT Male control

ATTGATAAAACAATTCATTAGTATCCGTCTGTGCTCCACCTGCATCCTTTCAATTTATAGACCTAATAAAATAATAATGAC Consensus
-----+-----+-----+-----+-----+-----+-----+-----+
          90        100        110        120        130        140        150        160
-----+-----+-----+-----+-----+-----+-----+-----+
81 ATTGATAAAACAATTCATTAGTATCCGTCTGTGCTCCACCTGCATCCTTTCAATTTATAGACCTAATAAAATAATAATGAC Reference Seq
80 ATTGATAAAACAATTCATTAGTATCCGTCTGTGCTCCACCTGCATCCTTTCAATTTATAGACCTAATAAAATAATAATGAC iYq Horse
80 ATTGATAAAACAATTCATTAGTATCCGTCTGTGCTCCACCTGCATCCTTTCAATTTATAGACCTAATAAAATAATAATGAC Male control

AAAGTTTGTGGTATTATTTTAAGGAGGGGCAGAGCCTTCAGCGCTGGGGATTAGAAGTAGGGCACAGAAACAGTGTGT Consensus
-----+-----+-----+-----+-----+-----+-----+-----+
        170        180        190        200        210        220        230        240
-----+-----+-----+-----+-----+-----+-----+-----+
161 AAAGTTTGTGGTATTATTTTAAGGAGGGGCAGAGCCTTCAGCGCTGGGGATTAGAAGTAGGGCACAGAAACAGTGTGT Reference Seq
160 AAAGTTTGTGGTATTATTTTAAGGAGGGGCAGAGCCTTCAGCGCTGGGGATTAGAAGTAGGGCACAGAAACAGTGTGT iYq Horse
160 AAAGTTTGTGGTATTATTTTAAGGAGGGGCAGAGCCTTCAGCGCTGGGGATTAGAAGTAGGGCACAGAAACAGTGTGT Male control

TATTACTCTGTTATCAGGTTTTGCTTGAGAGTGGATAGGCTGGTTGGGCTTTGGCTGACGGCCAGGACACGTTTGAGGG Consensus
-----+-----+-----+-----+-----+-----+-----+-----+
        250        260        270        280        290        300        310        320
-----+-----+-----+-----+-----+-----+-----+-----+
241 TATTACTCTGTTATCAGGTTTTGCTTGAGAGTGGATAGGCTGGTTGGGCTTTGGCTGACGGCCAGGACACGTTTGAGGG Reference Seq
240 TATTACTCTGTTATCAGGTTTTGCTTGAGAGTGGATAGGCTGGTTGGGCTTTGGCTGACGGCCAGGACACGTTTGAGGG iYq Horse
240 TATTACTCTGTTATCAGGTTTTGCTTGAGAGTGGATAGGCTGGTTGGGCTTTGGCTGACGGCCAGGACACGTTTGAGGG Male control

GAGGAGTTGGGGGCGGAGAAATAAGTATTTTATTACAAAAGTTGTAGTAACAAAGCCTCTGCTAGAATAACCTTGAAAA Consensus
-----+-----+-----+-----+-----+-----+-----+-----+
        330        340        350        360        370        380        390        400
-----+-----+-----+-----+-----+-----+-----+-----+
321 GAGGAGTTGGGGGCGGAGAAATAAGTATTTTATTACAAAAGTTGTAGTAACAAAGCCTCTGCTAGAATAACCTTGAAAA Reference Seq
320 GAGGAGTTGGGGGCGGAGAAATAAGTATTTTATTACAAAAGTTGTAGTAACAAAGCCTCTGCTAGAATAACCTTGAAAA iYq Horse
320 GAGGAGTTGGGGGCGGAGAAATAAGTATTTTATTACAAAAGTTGTAGTAACAAAGCCTCTGCTAGAATAACCTTGAAAA Male control

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GTAAGATAATTTTCCCAACGCTTTATCTTCGCATTTTGGCTACCACCCTCCTCTTCAACGGTGCCATCTTAAGCTTCTGCT Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
410 420 430 440 450 460 470 480
-----+-----+-----+-----+-----+-----+-----+-----+

401 GTAAGATAATTTTCCCAACGCTTTATCTTCGCATTTTGGCTACCACCCTCCTCTTCAACGGTGCCATCTTAAGCTTCTGCT Reference Seq
400 GTAAGATAATTTTCCCAACGCTTTATCTTCGCATTTTGGCTACCACCCTCCTCTTCAACGGTGCCATCTTAAGCTTCTGCT iYq Horse
400 GTAAGATAATTTTCCCAACGCTTTATCTTCGCATTTTGGCTACCACCCTCCTCTTCAACGGTGCCATCTTAAGCTTCTGCT Male control

ATGTCCAGAGTATCCAACAGCGATAATTACAGTCTAGCAGGACAGCAACATAACCGTTCTCGGCTCTGGGAGAACCTCATC Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
490 500 510 520 530 540 550 560
-----+-----+-----+-----+-----+-----+-----+-----+

481 ATGTCCAGAGTATCCAACAGCGATAATTACAGTCTAGCAGGACAGCAACATAACCGTTCTCGGCTCTGGGAGAACCTCATC Reference Seq
480 ATGTCCAGAGTATCCAACAGCGATAATTACAGTCTAGCAGGACAGCAACATAACCGTTCTCGGCTCTGGGAGAACCTCATC iYq Horse
480 ATGTCCAGAGTATCCAACAGCGATAATTACAGTCTAGCAGGACAGCAACATAACCGTTCTCGGCTCTGGGAGAACCTCATC Male control

CCTACTTTGGACGAGCAATCCTGGCTCACATTTTTCGGAGTGAAACAAGAGGAAATGGTAGAGAGAACGGCCAGGACCGTG Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
570 580 590 600 610 620 630 640
-----+-----+-----+-----+-----+-----+-----+-----+

561 CCTACTTTGGACGAGCAATCCTGGCTCACATTTTTCGGAGTGAAACAAGAGGAAATGGTAGAGAGAACGGCCAGGACCGTG Reference Seq
560 CCTACTTTGGACGAGCAATCCTGGCTCACATTTTTCGGAGTGAAACAAGAGGAAATGGTAGAGAGAACGGCCAGGACCGTG iYq Horse
560 CCTACTTTGGACGAGCAATCCTGGCTCACATTTTTCGGAGTGAAACAAGAGGAAATGGTAGAGAGAACGGCCAGGACCGTG Male control

TCAAACGACCCATGAATGCATTTCATGGTGTGGTCTCGTGATCACAGGCGCAAGGTCGCTCTAGAGAATCCCCAACTGCAA Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
650 660 670 680 690 700 710 720
-----+-----+-----+-----+-----+-----+-----+-----+

641 TCAAACGACCCATGAATGCATTTCATGGTGTGGTCTCGTGATCACAGGCGCAAGGTCGCTCTAGAGAATCCCCAACTGCAA Reference Seq
640 TCAAACGACCCATGAATGCATTTCATGGTGTGGTCTCGTGATCACAGGCGCAAGGTCGCTCTAGAGAATCCCCAACTGCAA iYq Horse
640 TCAAACGACCCATGAATGCATTTCATGGTGTGGTCTCGTGATCACAGGCGCAAGGTCGCTCTAGAGAATCCCCAACTGCAA Male control

AACTCAGAGATCAGCAAGCGGCTGGGATGCCAGTGGAAAATGCTTACGGAAGCCGAAAAATTGCCATTCTTCGAGGAGGC Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
730 740 750 760 770 780 790 800
-----+-----+-----+-----+-----+-----+-----+-----+

721 AACTCAGAGATCAGCAAGCGGCTGGGATGCCAGTGGAAAATGCTTACGGAAGCCGAAAAATTGCCATTCTTCGAGGAGGC Reference Seq
720 AACTCAGAGATCAGCAAGCGGCTGGGATGCCAGTGGAAAATGCTTACGGAAGCCGAAAAATTGCCATTCTTCGAGGAGGC iYq Horse
720 AACTCAGAGATCAGCAAGCGGCTGGGATGCCAGTGGAAAATGCTTACGGAAGCCGAAAAATTGCCATTCTTCGAGGAGGC Male control

ACAGAGACTACGGGCTATGCATCAAGAGAAATACCCGGACTATAAATATCGACCTCGTCGGAAGGCCAAGATGCCACAGA Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
810 820 830 840 850 860 870 880
-----+-----+-----+-----+-----+-----+-----+-----+

801 ACAGAGACTACGGGCTATGCATCAAGAGAAATACCCGGACTATAAATATCGACCTCGTCGGAAGGCCAAGATGCCACAGA Reference Seq
800 ACAGAGACTACGGGCTATGCATCAAGAGAAATACCCGGACTATAAATATCGACCTCGTCGGAAGGCCAAGATGCCACAGA iYq Horse
800 ACAGAGACTACGGGCTATGCATCAAGAGAAATACCCGGACTATAAATATCGACCTCGTCGGAAGGCCAAGATGCCACAGA Male control

AAAGTGACAAACCGCTTCCCGCAGACTCCTCTTCTACACTGTGCGGGCAGGCGCACGTACACGTCGACGAGTGGTTGAAC Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
890 900 910 920 930 940 950 960
-----+-----+-----+-----+-----+-----+-----+-----+

881 AAAGTGACAAACCGCTTCCCGCAGACTCCTCTTCTACACTGTGCGGGCAGGCGCACGTACACGTCGACGAGTGGTTGAAC Reference Seq
880 AAAGTGACAAACCGCTTCCCGCAGACTCCTCTTCTACACTGTGCGGGCAGGCGCACGTACACGTCGACGAGTGGTTGAAC iYq Horse
880 AAAGTGACAAACCGCTTCCCGCAGACTCCTCTTCTACACTGTGCGGGCAGGCGCACGTACACGTCGACGAGTGGTTGAAC Male control

CCTTTTCACATTACGGACGACTGTACTGAGGCCACACAGTCACAAACGGAGGAGCGGTTAAACCATTTCGACGCCCGCAA Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
970 980 990 1000 1010 1020 1030 1040
-----+-----+-----+-----+-----+-----+-----+-----+

961 CCTTTTCACATTACGGACGACTGTACTGAGGCCACACAGTCACAAACGGAGGAGCGGTTAAACCATTTCGACGCCCGCAA Reference Seq
960 CCTTTTCACATTACGGACGACTGTACTGAGGCCACACAGTCACAAACGGAGGAGCGGTTAAACCATTTCGACGCCCGCAA iYq Horse
960 CCTTTTCACATTACGGACGACTGTACTGAGGCCACACAGTCACAAACGGAGGAGCGGTTAAACCATTTCGACGCCCGCAA Male control

CACAGCTAATTCGGCGCTGCAACAGGAGCGTCACAGCAGCACCGCAACCCTGCGTGACAATCGGGTAACGTTGGCTACGC Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1050 1060 1070 1080 1090 1100 1110 1120
-----+-----+-----+-----+-----+-----+-----+-----+

1041 CACAGCTAATTCGGCGCTGCAACAGGAGCGTCACAGCAGCACCGCAACCCTGCGTGACAATCGGGTAACGTTGGCTACGC Reference Seq
1040 CACAGCTAATTCGGCGCTGCAACAGGAGCGTCACAGCAGCACCGCAACCCTGCGTGACAATCGGGTAACGTTGGCTACGC iYq Horse
1040 CACAGCTAATTCGGCGCTGCAACAGGAGCGTCACAGCAGCACCGCAACCCTGCGTGACAATCGGGTAACGTTGGCTACGC Male control

AGACATACGCAGACGTTCCCTTTTACTGTAATTTACCCTCCGGACTTTTCTCACGGTGATTTTCTTGATTTTCTTACTGG Consensus

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1130 1140 1150 1160 1170 1180 1190 1200
-----+-----+-----+-----+-----+-----+-----+-----+

1121 AGACATACGCAGACGTTCCCTTTTACTGTAATTTACCCTCCGGACTTTTCTCACGGTGATTTTCTTGATTTTCTTACTGG Reference Seq
1120 AGACATACGCAGACGTTCCCTTTTACTGTAATTTACCCTCCGGACTTTTCTCACGGTGATTTTCTTGATTTTCTTACTGG iYq Horse
1120 AGACATACGCAGACGTTCCCTTTTACTGTAATTTACCCTCCGGACTTTTCTCACGGTGATTTTCTTGATTTTCTTACTGG Male control

TGGCGGCAGAGTCCCTGTTTCGGCTCTATTTTCGTATTTCTTCTGGAGCCCCAGCGTATCAACACCAGTGAAATTTTGAGT Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1210 1220 1230 1240 1250 1260 1270 1280
-----+-----+-----+-----+-----+-----+-----+-----+

1201 TGGCGGCAGAGTCCCTGTTTCGGCTCTATTTTCGTATTTCTTCTGGAGCCCCAGCGTATCAACACCAGTGAAATTTTGAGT Reference Seq
1200 TGGCGGCAGAGTCCCTGTTTCGGCTCTATTTTCGTATTTCTTCTGGAGCCCCAGCGTATCAACACCAGTGAAATTTTGAGT iYq Horse
1200 TGGCGGCAGAGTCCCTGTTTCGGCTCTATTTTCGTATTTCTTCTGGAGCCCCAGCGTATCAACACCAGTGAAATTTTGAGT Male control

TCCAAGGTCAGCTGTTTTTCTGTTAATGGAACAGTTTGTAATCTAATTTTAGTCTTCCAGAGGTTGTCCTTTAAATAGCG Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1290 1300 1310 1320 1330 1340 1350 1360
-----+-----+-----+-----+-----+-----+-----+-----+

1281 TCCAAGGTCAGCTGTTTTTCTGTTAATGGAACAGTTTGTAATCTAATTTTAGTCTTCCAGAGGTTGTCCTTTAAATAGCG Reference Seq
1280 TCCAAGGTCAGCTGTTTTTCTGTTAATGGAACAGTTTGTAATCTAATTTTAGTCTTCCAGAGGTTGTCCTTTAAATAGCG iYq Horse
1280 TCCAAGGTCAGCTGTTTTTCTGTTAATGGAACAGTTTGTAATCTAATTTTAGTCTTCCAGAGGTTGTCCTTTAAATAGCG Male control

CTAAGCATATATTGATACTAATAATCGCCAGCATAGATCACAGAATTCTAACTCTTTATTTTAAATACTATAAGTCAC Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1370 1380 1390 1400 1410 1420 1430 1440
-----+-----+-----+-----+-----+-----+-----+-----+

1361 CTAAGCATATATTGATACTAATAATCGCCAGCATAGATCACAGAATTCTAACTCTTTATTTTAAATACTATAAGTCAC Reference Seq
1360 CTAAGCATATATTGATACTAATAATCGCCAGCATAGATCACAGAATTCTAACTCTTTATTTTAAATACTATAAGTCAC iYq Horse
1360 CTAAGCATATATTGATACTAATAATCGCCAGCATAGATCACAGAATTCTAACTCTTTATTTTAAATACTATAAGTCAC Male control

AAACATAGTGGAGAGAAGCATGCACAAAATTATGCTATGGAAAAATTGTTGCGTTTTGATGGGAAACTGCGTAGCGTCTA Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1450 1460 1470 1480 1490 1500 1510 1520
-----+-----+-----+-----+-----+-----+-----+-----+

1441 AAACATAGTGGAGAGAAGCATGCACAAAATTATGCTATGGAAAAATTGTTGCGTTTTGATGGGAAACTGCGTAGCGTCTA Reference Seq
1440 AAACATAGTGGAGAGAAGCATGCACAAAATTATGCTATGGAAAAATTGTTGCGTTTTGATGGGAAACTGCGTAGCGTCTA iYq Horse
1440 AAACATAGTGGAGAGAAGCATGCACAAAATTATGCTATGGAAAAATTGTTGCGTTTTGATGGGAAACTGCGTAGCGTCTA Male control

CAGTAGTCCCTTCTCGACGG-TCTGTTTCATTGGTCTTTTCAGCTACCTTGCGCGTCTTGGTAAACTGCACATAATTAACGC Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1530 1540 1550 1560 1570 1580 1590 1600
-----+-----+-----+-----+-----+-----+-----+-----+

1521 CAGTAGTCCCTTCTCGACGG-TCTGTTTCATTGGTCTTTTCAGCTACCTTGCGCGTCTTGGTAAACTGCACATAATTAACGC Reference Seq
1520 CAGTAGTCCCTTCTCGACGG-TCTGTTTCATTGGTCTTTTCAGCTACCTTGCGCGTCTTGGTAAACTGCACATAATTAACGC iYq Horse
1520 CAGTAGTCCCTTCTCGACGG-TCTGTTTCATTGGTCTTTTCAGCTACCTTGCGCGTCTTGGTAAACTGCACATAATTAACGC Male control

ATGGAAATGTAAATTCTTTCCTGTTGGATAGTTTATGTTACCTCCCCTCCCCGCTGTGAGAAACCAGTCTTGCGGCCCTT Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1610 1620 1630 1640 1650 1660 1670 1680
-----+-----+-----+-----+-----+-----+-----+-----+

1600 ATGGAAATGTAAATTCTTTCCTGTTGGATAGTTTATGTTACCTCCCCTCCCCGCTGTGAGAAACCAGTCTTGCGGCCCTT Reference Seq
1599 ATGGAAATGTAAATTCTTTCCTGTTGGATAGTTTATGTTACCTCCCCTCCCCGCTGTGAGAAACCAGTCTTGCGGCCCTT iYq Horse
1600 ATGGAAATGTAAATTCTTTCCTGTTGGATAGTTTATGTTACCTCCCCTCCCCGCTGTGAGAAACCAGTCTTGCGGCCCTT Male control

TGCTATTCAATTCTTTTACTCCGCACAAAACCTGAGAGCTTCGATGCGCTGTGAACCGGTTATATTCTCTATCTGGTAAAA Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1690 1700 1710 1720 1730 1740 1750 1760
-----+-----+-----+-----+-----+-----+-----+-----+

1680 TGCTATTCAATTCTTTTACTCCGCACAAAACCTGAGAGCTTCGATGCGCTGTGAACCGGTTATATTCTCTATCTGGTAAAA Reference Seq
1679 TGCTATTCAATTCTTTTACTCCGCACAAAACCTGAGAGCTTCGATGCGCTGTGAACCGGTTATATTCTCTATCTGGTAAAA iYq Horse
1680 TGCTATTCAATTCTTTTACTCCGCACAAAACCTGAGAGCTTCGATGCGCTGTGAACCGGTTATATTCTCTATCTGGTAAAA Male control

TAAAATGTTTTATTTAACTCGTGATCATTTTTGATATCCTTATGAGACTCATAGTTAGTTTTGCCTGTTTTTCCCAGAACTT Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1770 1780 1790 1800 1810 1820 1830 1840
-----+-----+-----+-----+-----+-----+-----+-----+

1760 TAAAATGTTTTATTTAACTCGTGATCATTTTTGATATCCTTATGAGACTCATAGTTAGTTTTGCCTGTTTTTCCCAGAACTT Reference Seq
1759 TAAAATGTTTTATTTAACTCGTGATCATTTTTGATATCCTTATGAGACTCATAGTTAGTTTTGCCTGTTTTTCCCAGAACTT iYq Horse
1760 TAAAATGTTTTATTTAACTCGTGATCATTTTTGATATCCTTATGAGACTCATAGTTAGTTTTGCCTGTTTTTCCCAGAACTT Male control

TCTTTTGACAATGGCAATGTACCTGTTTCCATTGCCGCCTAACTTTTAACTTTACGGAGGAAAAAATAACGAATGCTGAG Consensus

-----+-----+-----+-----+-----+-----+-----+-----+
1850 1860 1870 1880 1890 1900 1910 1920
-----+-----+-----+-----+-----+-----+-----+-----+

1840 TCTTTTGACAATGGCAATGTACCTGTTTCCATTGCCGCCTAACTTTTAACTTTACGGAGGAAAAAATAACGAATGCTGAG Reference Seq
1839 TCTTTTGACAATGGCAATGTACCTGTTTCCATTGCCGCCTAACTTTTAACTTTACGGAGGAAAAAATAACGAATGCTGAG iYq Horse
1840 TCTTTTGACAATGGCAATGTACCTGTTTCCATTGCCGCCTAACTTTTAACTTTACGGAGGAAAAAATAACGAATGCTGAG Male control

AATATGAACTGCTGAGATTATGGGAGTGG-ACACCC Consensus

-----+-----+-----+-----+
1930 1940 1950
-----+-----+-----+-----+

1920 AATATGAACTGCTGAGATTATGGGAGTGGACACCC Reference Seq
1919 AATATGAACTGCTGAGATTATGGGAGTGG-ACACCC iYq Horse
1920 AATATGAACTGCTGAGATTATGGGAGTGG-ACACCC Male control