

69 8.60 1.74 1.74 NW\_022436941.1 1361 1475 (2515) (AC)n#Simple\_repeat 1 115 (0) c\_bls251i0 1

```

NW_022436941.      1361 ACACACCCACACCCAC-CGACACACACCCACACACACA-AAATCCCACAC 1408
                        v      v      -      v      - v - v
(AC)n#Simple_      1 ACACACACACACACACAC-ACACACACACACACACACACA-CACACAC 48

NW_022436941.      1409 CCACACACACCCACACAGATACACACACACACACACACACACACACAC 1458
                        v      v      v i
(AC)n#Simple_      49 ACACACACACACACACACACACACACACACACACACACACACACACAC 98

NW_022436941.      1459 ACACACACACACACACA 1475

(AC)n#Simple_      99 ACACACACACACACACA 115

```

Matrix = Unknown

Transitions / transversions = 0.12 (1/8)

Gap\_init rate = 0.04 (4 / 114), avg. gap size = 1.00 (4 / 4)

410 20.23 0.00 1.12 NW\_022436941.1 1684 1773 (2217) C 7SLRNA#SINE/Alu (222) 98 10 m\_bls502i0 2

```

NW_022436941.      1684 CATAGCTCACTGCAGCCTCAAACCTCCTAGGCTCAAGCAATTCTCCACCT 1733
                        v      i      ivi      i      i i      i
C 7SLRNA#SINE/A      98 CATAGCGCACTACAGCCCAGAACTCCTGGGCTCAAGCGATCCTCCCGCCT 49

NW_022436941.      1734 TCGCCTCCAGTGTTGACGGGGACTACAGGCGCAAGCCCCC 1773
                        iv      v v v - v      iv v
C 7SLRNA#SINE/A      48 CAGCCTCCCGAGTAG-CTGGGACTACAGGCGCGCGCCACC 10

```

Matrix = 20p37g.matrix

Kimura (with divCpGMod) = 19.55

Transitions / transversions = 1.00 (9/9)

Gap\_init rate = 0.01 (1 / 89), avg. gap size = 1.00 (1 / 1)

14 11.65 0.00 3.45 NW\_022436941.1 1783 1812 (2178) (TTTAC)n#Simple\_repeat 1 29 (0) m\_bls252i0 3

```

NW_022436941.      1783 TTTACTTTCCTTTACTTTTATTTTATTTTA 1812
                        v      -      i      i
(TTTAC)n#Simp      1 TTTACTTTACTTTAC-TTTACTTTACTTTA 29

```

Matrix = Unknown

Transitions / transversions = 2.00 (2/1)

Gap\_init rate = 0.03 (1 / 29), avg. gap size = 1.00 (1 / 1)

468 21.35 0.78 9.24 NW\_022436941.1 1813 1941 (2049) C PB1D7#SINE/Alu (0) 120 2 m\_bls502i1 4

|                 |      |   |      |
|-----------------|------|---|------|
| NW_022436941.   | 1813 | TTTTACTTTCTGTACAGAAAGGGATCTCACCATGTTGACCAGGCTGATC   | 1862 |
|                 |      | ii i --- v - iv v v ii                              |      |
| C PB1D7#SINE/Al | 120  | TTTTGTTTTTTTG---AGACAGGG-TCTCACTCTGTAGCCCAGGCTGGCC  | 75   |
| NW_022436941.   | 1863 | TGGAACCTGGGCTCA--GGCTAGCCTCCTTCTTCAGCCTCCCAAAGTGCTA | 1911 |
|                 |      | v ----- - v v v i i - i                             |      |
| C PB1D7#SINE/Al | 74   | TCGAAC-----TCACGGCGATCCTCCTGCCTCAGCCTCCCGA-GTGCTG   | 32   |
| NW_022436941.   | 1912 | GGATTACAAGTGTGAACCACAGTGCTCAGC                      | 1941 |
|                 |      | i i i vii i i                                       |      |
| C PB1D7#SINE/Al | 31   | GGATTACAGGCGTGAGCCACCACGCCCCGGC                     | 2    |

Matrix = 20p37g.matrix  
Kimura (with divCpGMod) = 21.01  
Transitions / transversions = 1.78 (16/9)  
Gap init rate = 0.09 (12 / 128), avg. gap size = 1.00 (12 / 12)

483 25.00 1.77 0.88 NW 022436941.1 1829 1941 (2049) C PB1#SINE/Alu (12) 115 2 m b1s502i2 4

|                |      |  |      |
|----------------|------|--|------|
| NW_022436941.  | 1829 | AGAAAGGGATCTCACCATGTTGACCAGGCTGATCTGGAAC--CTGGGCTC | 1876 |
|                |      | v - i i v ii v -- i                                |      |
| C PB1#SINE/Alu | 115  | AGACAGGG-TCTCGCTATGTTGCCCAGGCTGGCCTCGAACTCCTGGACTC | 67   |
| NW_022436941.  | 1877 | AGGCTAGCCTCCTTCTTCAGCCTCCCAAAGTGCTAGGATTACAAGTGTGA | 1926 |
|                |      | i iv v v i i ivv i i i i v                         |      |
| C PB1#SINE/Alu | 66   | AAGTGATCCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGCGTGC | 17   |
| NW_022436941.  | 1927 | ACCACAGTGCTCAGC                                    | 1941 |
|                |      | i v i i i  |      |
| C PB1#SINE/Alu | 16   | GCCACCGCGCCCGGC                                    | 2    |

Matrix = 20p37g.matrix  
Kimura (with divCpGMod) = 23.78  
Transitions / transversions = 1.80 (18/10)  
Gap init rate = 0.02 (2 / 112), avg. gap size = 1.50 (3 / 2)

```
27 18.49 5.19 2.53 NW 022436941.1 2075 2151 (1839) (TA)n#Simple repeat 1 79 (0) m b1s252i1 5
```

```

NW_022436941.      2075 TATTTATA-ATGATTTATATATCATGTACATATATATATTTTATGTACA 2123
                      v   -   -   v           -   i   i           v v   i   i
(TA)n#Simple_      1 TATATATATAT-ATATATATAT-ATATATATATATATATATATATATA 48

NW_022436941.      2124 TATAT-TTTATATA-ATAGATACA-ATTTAT 2151
                      -   v           -   v   i   -   v
(TA)n#Simple       49 TATATATATATATATATATATATATATATATATATAT 79

```

Matrix = Unknown

Transitions / transversions = 0.71 (5/7)

Gap\_init rate = 0.08 (6 / 76), avg. gap size = 1.00 (6 / 6)

19 24.83 5.62 2.17 NW\_022436941.1 2076 2164 (1826) (ATATATA)n#Simple\_repeat 1 92 (0) m\_bls252i2 5

NW\_022436941. 2076 ATTTATAATGAT-TTATATATCATGTA-CATATAT-ATAT-TTTTATGTA 2121

v - - v v i -v - - vv i

(ATATATA)n#Si 1 ATATATAAT-ATATAATATATAATATATAATATATAATATATAATATATA 49

NW\_022436941. 2122 CATATATTTTATATAATAGATACAATTTATTA-ACAATTTACAA 2164

- vv v vv v v - i v i

(ATATATA)n#Si 50 -ATATATAATATATAATATATAATATATAATATATAATATATAA 92

Matrix = Unknown

Transitions / transversions = 0.29 (4/14)

Gap\_init rate = 0.08 (7 / 88), avg. gap size = 1.00 (7 / 7)

369 30.36 4.32 2.42 NW\_022436941.1 3422 3583 (407) C L4\_C\_Mam#LINE/RTE-X (515) 4623 4459 m\_bls551i0 6

NW\_022436941. 3422 GGGAAGCTAAACTAACATGGTCTAATTATTCTAACCTCTGTTACCTAAC 3471

i i? ii i iv vi?ivii v v i

C L4\_C\_Mam#LINE 4623 GGGGAGCTAAGNTAATGTGGTCCAGGTATGTNGCTTTCTGGTGATCTAAC 4574

NW\_022436941. 3472 TTGATTTAGGAACAAATCATTGAGAGT-TAGAGCA-TGAATAGTCAAGAT 3519

vi i i i v v v i - v - i i i iv

C L4\_C\_Mam#LINE 4573 TTGATACAGGGATAGAGCTTAGAGAATCTAGAGGAATGGATGGTTAGCAT 4524

NW\_022436941. 3520 ---CTTTAGACCATATCTC--AAATATAAGTGATCTGAATCAACTCTGTT 3564

--- i i v -- v vi v ii i v- v

C L4\_C\_Mam#LINE 4523 GTCCCTTAGACTATCTCTCTCAAATATCAGTTGTCTCAGCCGAG-CTTTT 4475

NW\_022436941. 3565 TCCAGTTTGAGCTGAATAG 3583

vv --- i

C L4\_C\_Mam#LINE 4474 GGCAG---GAGCTGGATAG 4459

Matrix = 20p37g.matrix

Kimura (with divCpGMod) = 37.46

Transitions / transversions = 1.42 (27/19)

Gap\_init rate = 0.05 (8 / 161), avg. gap size = 1.38 (11 / 8)