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FLY      1  A T T T A T G T A T T T G T T - - - - - G T A A A A C A A A A A - - - - -
CELEGANS 1  A - - - - - - - - - - T - - - - - G A A G A T C A A A G A A G - - - - -
FLOWER   1  A - - - - - - - - - - T - - - - - G G C G G T C A A G A A T G G T T A T G A C A
SOY      1  A - - - - - - - - - - T - - - - -
FROG     1  A T - - - - -
TROUT    1  - - - - -
DANIO    1  A T T T T T T T G A C T G T T A T G T C T T T T G C G T G A G G G G A G G G A A A A T A A A A - - - - - T T T G A T A
PIG      1  - - - - -
HOMO     1  - - - - - G G G A G G G - - - - -
COW      1  - - - - -
MOUSE    1  - - - - -
RAT      1  - - - - - G A G G G - - - - -
          1  1 . . . . . 10 . . . . . 20 . . . . . 30 . . . . . 40 . . . . . 50 . . . . .

FLY      28  - - - G A G C G C G A T T T T G T G C A A A A A A T C G C A T A T A A T A - - - - - A G A T G C A C A T C A A
CELEGANS 17  - - - - -
FLOWER   26  T T A G T G C G A G T A C C T T A G C G A G G T T T C G C - - - - - T A T G T T T A T C A A
SOY      3  - - - - - T T T C G G - - - - - G A A G T A T T T - - -
FROG     3  - - - - -
TROUT    1  - - - - -
DANIO    55  C T A C A G - - - - - A A G A G T C A A A A T T C T A C A A T T T T A T C C G G T G T G C A G A T T T T T G T T
PIG      1  - - - - -
HOMO     8  - - - - - G T C G C G T A G G C G C C T C A C C T
COW      1  - - - - -
MOUSE    1  - - - - -
RAT      6  - - - - - G C C G - G T C T G C G T C T C T C C T
          61  61 . . . . . 70 . . . . . 80 . . . . . 90 . . . . . 100 . . . . . 110 . . . . .

FLY      75  G - - - - - - - - - - C A G A T - - - - -
CELEGANS 17  - - - - -
FLOWER   67  G - - - - - C A G G T A C G A A T T C G C G A A C T G T T C T T A C T C T A T T
SOY      18  - - - - - T C C G A A C T T G T G C A - - - - -
FROG     3  - - - - -
TROUT    1  - - - - -
DANIO    108 A T C A C T A A A G C C C T T C T T C T - - - - C T T T G A G G A G G A G G G T G T T T - - A A T T C A G C T T T A T T
PIG      1  - - - - -
HOMO     28  G A C C C T G C G G C T G T G C G G T T G C T G C T C C G G G G C - A G G T C T C C T T C C A G G C C A G - - - - -
COW      1  - - - - -
MOUSE    1  - - - - -
RAT      25  G A C C C T G C C G C C G C G C T G T T G C G G T T C T G A G G T G A A G C T T T C C T C C T G C G G A G - - - - -
          121  121 . . . . . 130 . . . . . 140 . . . . . 150 . . . . . 160 . . . . . 170 . . . . .

FLY      81  - - - - - T A T T
CELEGANS 17  - - - - - T G A G A
FLOWER   102 G T T A A T T G G A A C T - - - - - G A T G T T A T - - - - C T G G T T A T A
SOY      32  - - - - - G G G G G G - - - - - C A T G G T C A T - - - - C T G G T T A T G
FROG     3  - - - - - G T A T A T C A A G C A G G T G A T C
TROUT    1  - - - - -
DANIO    162 - T A A T T G G T T T C T G A G G A G T G T T T T G T G C A T A A A C C G C C A T G T A C A T T A A A C A G G T C A T T
PIG      1  - - - - -
HOMO     80  - - - - - G G G C C G G A - - - - - A T C A T G T A C A T A A A G C A G G T G A T T
COW      1  - - - - - A T G T A C A T A A A G C A G G T T A T T
MOUSE    1  - - - - -
RAT      78  - - - - - G G G C G C G G A - - - - - G C C A T G T A C A T C A A G C A G G T G A T T
          181  181 . . . . . 190 . . . . . 200 . . . . . 210 . . . . . 220 . . . . . 230 . . . . .

FLY      85  A T A C A A G G C T T C A A G A G T T A C A A G G A C C A - - - - - G A C G G T G G T G G A A C C A - - - - -
CELEGANS 22  A T C A C C G G C T T T C G A A G C T A C A A A G A C A A - - - - - C A C C A A T G T G
FLOWER   133 A T C G A A G G A T T T A A G A G T T A C A A A G A G C A A G T T G C T A C T G A G G A G T T T A G C A A C A A A G T -
SOY      57  A T - - - - -
FROG     22  A T T C A G G G C T T C C G G A G C T A C A G A G A T C A A - - - - - A C G A T C G T C G A T C C - - - - -
TROUT    1  - - - - -
DANIO    221  A T T C A A G G C T T T C G A A G C T A C A G A G A T C A A - - - - - A C T G T G G T C G A T C C - - - - -
PIG      1  - - - - -
HOMO     113 A T C C A G G G T T T T C G A A G T T A C A G A G A T C A A - - - - - A C A A T T G T A G A T C C - - - - -
COW      22  A T C C A G G G T T T T C G A A G T T A T A G A G A T C A A - - - - - A C A A T T G T A G A C C C - - - - -
MOUSE    1  - - - - -
RAT      111  A T C C A G G G C T T C C G A A G T T A C C G A G A T C A A - - - - - A C A A T T G T A G A T C C - - - - -
          241  241 . . . . . 250 . . . . . 260 . . . . . 270 . . . . . 280 . . . . . 290 . . . . .

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FLY 130 -----TTCGACAAGCGCCATAACGTTGTTGTTGGACGTAATGGCTCCGGGAAGAGCAAC
CELEGANS 61 TCGGGCTTCAGTCCACGCTCGAACGTCGTCGTCGGACGAAATGGATCGGGAAAATCCAAT
FLOWER 192 -----TAATTGTGTTGTTGGGGCAAATGGGTCTGGGAAAAGCAAT
SOY 59 -----
FROG 66 -----ATTTAGTTCCAAGCACAATGTTATTGTGGGAAGAAATGGATCGGGGAAAAGTAAT
TROUT 1 -----
DANIO 265 -----CTTCGGCTCAAAACACAATGTCATCGTCGGCAGAAATGGATCAGGAAAGAGTAAC
PIG 1 -----
HOMO 157 -----CTTCAGTTCAAAACATAATGTGATTGTGGGCAGAAATGGATCTGGAAAAAGTAAC
COW 66 -----GTTTCAGTTCAAAACATAATGTTATTGTGGGCAGAAATGGATCTGGAAAAAGTAAC
MOUSE 1 -----
RAT 155 -----CTTCAGTTCAAAACATAATGTTATTGTGGGCAGAAATGGATCTGGAAAAAGCAAC
301 301.....310.....320.....330.....340.....350.....

FLY 184 TTCTTCTACGCCATCCAGTTTGTGCTAAGCGATGAGTTCACCCACTTGCGGCCGGAGCAG
CELEGANS 121 TTTTTCCATGCGATTCAATTCGTTCTTCCGATGAATATGCTCATTGAAAGAAGAACAA
FLOWER 232 TTCTTCCATGCGATTTCGTTTTGT-----ATTGA-----
SOY 59 -----
FROG 121 TTTTTCTACGCCATTTCAGTTTGTACTCAGTGATGAATTCAGCCATCTCCGTCCAGAGCA-
TROUT 1 -----
DANIO 320 TTCTTTTATGCTATACAGTTTGTACTCAGCGATGAGTTCAGTCATCTTCGGCCAGAGCA-
PIG 1 TTTTTTTTT-----TTTTTTTTTAGTCATAAA-----
HOMO 212 TTTTTTTATGCAATTCAGTTTGTTCAGTGATGAGTTTAGTCATCTTCGTCCAGAACA-
COW 121 TTTTTTTATGCAATTCAGTTTGTTCAGTGATGAGTTTAGTCATCTTCGTCCGGAACA-
MOUSE 1 -----
RAT 210 TTTTTTTATGCAATTCAGTTTGTTCAGTGATGAATTTAGTCATCTTCGTCCAGAGCA-
361 361.....370.....380.....390.....400.....410.....

FLY 244 CGTCAGTCGTTCTGCACGAGGGAACAGGT-----GCCCGCG-----
CELEGANS 181 CGTCTTGGTCTGCTTCACGAGAGTACCGGACCGAAAGTCGCCACGCTCGTGTGCGAAATC
FLOWER 260 -----
SOY 59 -----
FROG 180 -----
TROUT 1 -----
DANIO 379 -----
PIG 28 -----
HOMO 271 -----
COW 180 -----
MOUSE 1 -----
RAT 269 -----
421 421.....430.....440.....450.....460.....470.....

FLY 281 -----
CELEGANS 241 ACCTTTGACAACCTCGGAAAAGCGTCTAATGGCGTTTGAAAATTCAGAAGTGAAGAT----
FLOWER 260 ----GTGACATCTACCAAATC-----TGCAGTGAAGATAGGC
SOY 59 -----
FROG 180 -----AAGGCTG-----
TROUT 1 -----
DANIO 379 -----GCGTTTG-----
PIG 28 -----
HOMO 271 -----GCGTTTG-----
COW 180 -----GCGATTG-----
MOUSE 1 -----
RAT 269 -----GCGATTG-----
481 481.....490.....500.....510.....520.....530.....

FLY 281 -----TCATCTCCGCCTATGTGGAGATCATCT
CELEGANS 297 -----TGTTTCGTCAGT-----
FLOWER 296 ATGCATTACTCCATGAAGGTGCTGGTCATCAAGTCGTGTCCGCGTTTCGTGGAGATTGTGT
SOY 59 -----
FROG 187 --GCGTTACTACATGAAGGAACTGGGCCCGTGTTATTTCTGCTTTTGTAGAAATTATAT
TROUT 1 -----
DANIO 386 --GCTCTGCTTCATGAAGGCACTGGTCCTCGAGTCATTTAGCCTTCGTGGAAATCATAT
PIG 28 -----
HOMO 278 --GCTTTATTGCATGAAGGTACTGGTCCTCGTGTTATTTCTGCTTTTGTGGAGATTATTT
COW 187 --GCTTTGTTACATGAGGGTACTGGTCCTCGTGTTATTTCTGCTTTTGTGGAGATTATTT
MOUSE 1 -----
RAT 276 --GCTTTGTTGCACGAGGGTACAGGTCCTCGTGTTATTTCTGCTTTTGTGGAAATCATTT
541 541.....550.....560.....570.....580.....590.....

FLY 308 TCGACAACCTCGGACAACCGAGTTCCAATCGACAAAGAAGAGATCTTTCTGCGGCGCGTGA
CELEGANS 309 -----
FLOWER 356 TTGATAATTCTGACAACCGGTTCCCGTTGATAAGGAAGAAATACGCTTGCGCAGAACAG
SOY 59 -----
FROG 245 TTGATAACTCCGACAACAGATTACCAATTGACAAAGAAGAGGTTTCCCTTCGGAGAGTGA
TROUT 1 -----
DANIO 444 TCGACAACCTCTGACAACAGACTTCCAATTGACAAAGAGGAAGTGTCACTGCGCCGTGTCA
PIG 28 -----
HOMO 336 TTGATAATTCTGACAACCGGTTACCAATCGATAAAGAGGAAGTTTCACTTCGAAGAGTTA
COW 245 TTGACAATTCTGACAACCGGTTACCGATCGACAAAGAGGAAGTTTCCCTTCGAAGAGTTA
MOUSE 1 -----
RAT 334 TTGACAATTCTGACAACCGGTTACCAATTGATAAAGAGGAAGTTTTCGCTTCGAAGAGTTA
601 601.....610.....620.....630.....640.....650.....

FLY 368 TTGGCGCCAAAAAGGACCAGTACTTCTCAACAAGAAGTGGTGCCGCGCAATGAGGTGG
CELEGANS 309 -TGGAAAGAAAAAGGATCAATATTACATTGATAATAAAATGGTGCCACGTGCCGAGGTGG
FLOWER 416 TTGGCCTGAAGAAGGATGATTATTTCTTGGATGGGAAACACATTACAAAAGGTGAAGTTA
SOY 59 -----
FROG 305 TTGGTGCCAAAAAAGATCAGTATTTCTGGACAAGAAAATGGTGACAAAAAATGATGTAA
TROUT 1 -----
DANIO 504 TTGGAGCCAAGAAAGACCAGTACTTCTTGGACA AAAAGATGGTCACTAAAACGACGTGA
PIG 41 -----
HOMO 396 TTGGTGCCAAAAAAGGATCAGTATTTCTTAGACAAGAAGATGGTCACGAAAAATGATGTGA
COW 305 TCGGTGCCAAAAAAGGATCAGTATTTCTTAGACAAGA AAAATGGTCACGAAAAATGATGTGA
MOUSE 1 -----
RAT 394 TTGGTGCCAAAAAAGATCAGTATTTCTTAGATAAGAAGATGGTCACGAAAAATGATGTGA
661 661.....670.....680.....690.....700.....710.....

FLY 428 TCAATCTGCTGGAATCGGCTGGTTTTTCCAGTTCAAATCCCTACTACATTGTCAAGCAGG
CELEGANS 368 TAAATCTCATGGAATCCGCCGATTTTCTCGCTCAAACCCGTATTACATCGTTAAACAGG
FLOWER 476 TGAATTTATTGGAGAGTGCTGGATTTTCTCGTGCTAATCCTTACTATGTTGTTCAACAAG
SOY 59 -----
FROG 365 TGAATCTTCTTGAAAGCGCAGGGTTTTCTCGTAGCAATCCTTACTACATTGTGAAACAAG
TROUT 1 -----
DANIO 564 TGAACCTTTTAGAGAGTGCTGGATTCTCCGCAGTAACCCTTACTACATTGTCAAGCAAG
PIG 41 -----
HOMO 456 TGAACCTCCTTGAAAGCGCTGGTTTTTCTCGAAGCAATCCTTATTATATTGTTAAACAAG
COW 365 TGAATCTCCTTGAAAGTGCTGGTTTTTCTCGAAGCAATCCTTATTATATTGTTAAACAAG
MOUSE 1 -----
RAT 454 TGAATCTCCTTGAAAGTGCTGGTTTTTCTCGAGAAGTAATCCTTATTACATTGTTAAACAAG
721 721.....730.....740.....750.....760.....770.....

FLY 488 GCAAAATCAATCAGATGGCAACTGCCGCCGATTCCTATCGTCTCAAGCTGCTACGCGAAG
CELEGANS 428 GAAAAATCAACGAGTTGGCCACTTCGCCGACGCTTATAAGCTAAAGCTACTGAGAGAAG
FLOWER 536 GAAAGAT-----AG
SOY 59 -----
FROG 425 GCAAGATCAACCAGATGGCCACAGCACCCTGACTCTCAAAGGCTTAAGCTGCTGAGGGAGG
TROUT 1 -----
DANIO 624 GAAAGATCAACCAGATGGCTACGGCGCCGACTCTCAGCGTCTGAAGCTGCTCCGAGAAG
PIG 41 -----
HOMO 516 GAAAGATCAACCAGATGGCAACAGCACCAGATTCTCAGAGATTAAGCTATTAAGAGAAG
COW 425 GAAAGATTAACCAGATGGCCACAGCACCAGATTCTCAGAGACTAAACTACTAAGAGAAG
MOUSE 1 -----
RAT 514 GAAAGATCAACCAAATGGCAACAGCACCCTGACTCTCAGAGATTAAGCTGTTGAGAGAAG
781 781.....790.....800.....810.....820.....830.....

FLY 548 TCGCGGGAACGCGTGTTTACG-----ACGAACGGAA
CELEGANS 488 TCGCCGGAACACGAGTTTACG-----ATGAAAGAAA
FLOWER 545 CCTCGTTAAACTA-----ATGAAAGACA
SOY 59 -----
FROG 485 TAGCTGGGACGAGGGTGTATGATGAACGTAAGAAGAAAGTATCTCCTTAATGAAAGAAA
TROUT 1 -----
DANIO 684 TGGCCGGAACCAGAGTCTATGATGAGCGCAAGGAGGAGATATCTCGCTTATGAAGGAAA
PIG 51 -----
HOMO 576 TAGCTGGTACTAGAGTGTATGACGAACGAAAGGAAGAAAGCATCTCCTTAATGAAAGAAA
COW 485 TAGCTGGTACTAGAGTGTATGATGAACGAAAGAAGAAAGCATATCTTTAATGAAAGAAA
MOUSE 1 -----
RAT 574 TAGCTGGCACTCGAGTGTATGACGAGCGCAAAGAGGAAAGCATCTCCCTGATGAAAGAAA
841 841.....850.....860.....870.....880.....890.....

FLY 579 GG-----AGGAGTCGTTAAA-----
CELEGANS 519 GG-----A-----
FLOWER 569 TA-----G-----
SOY 59 -----
FROG 545 CTGAGGGTAAGCGAGAGAAAATTAATGAGCTGCTGAAGTACATTGAGGAAAGACTGCACA
TROUT 1 -----
DANIO 744 CAGAGGGAAAGCGAGAGAAGATTAATGAGCTGCTAAAGTACATCGAGGAGCGTCTGCACA
PIG 62 -----TATAAT-----
HOMO 636 CAGAGGGCAAACGGGAAAAAATCAATGAGTTGTTAAAATACATTGAAGAGAGATTACATA
COW 545 CAGAGGGAAAACGGGAAAAAATCAATGAGTTGTTAAAATACATTGAAGAGAGATTACATA
MOUSE 1 -----
RAT 634 CAGAGGGCAAACGGGAAAAGATCAATGAGTTGTTAAAATACATTGAAGAGCGATTACATA
901 901.....910.....920.....930.....940.....950.....

FLY 594 -TCTA-----TTGCGC-----GAGACG--
CELEGANS 522 -----
FLOWER 572 -----
SOY 59 -----
FROG 605 CCTTGAGGAGGAAAAGGAAGAGCTGGCTCAGTATCAGAAATGGGACAAGATGCGTAGGG
TROUT 1 -----
DANIO 804 CTCTAGAGGATGAGAAAGAGGAAGCTGGCGCAGTACCAGAAATGGGACAAAATGAGGAGAG
PIG 68 -----TGATAAAAT-----
HOMO 696 CTCTAGAGGAAGAAAAGGAAGAACTAGCTCAGTATCAGAAGTGGGATAAAATGAGACGAG
COW 605 CCTTAGAGGAAGAAAAGGAAGAACTAGCTCAGTATCAAAGTGGGATAAGATGAGACGAG
MOUSE 1 -----
RAT 694 CTCTAGAGGAGGAGAAGGAGGAAGCTGGCCAGTATCAGAAGTGGGATAAAATGAGGCGTG
961 961.....970.....980.....990.....1000.....1010.....

FLY 610 -----
CELEGANS 522 -----
FLOWER 572 -----
SOY 59 -----
FROG 665 CCTTGGAATATAACCATTTACAATCAGGAGCTGAATGAGACTCGTGCAAAGCTTGACGAGC
TROUT 1 -----
DANIO 864 CGCTGGAGTACACCATATACAACCAGGAGCTCAACGAGACCCGCGCAAACCTGGACGAGT
PIG 77 -----
HOMO 756 CCCTGGAATATAACCATTTACAATCAGGAACTTAACGAGACTCGTGCCAAACTTGATGAGC
COW 665 CCCTGGAATATAACCATTTACAATCAGGAACTTAACGAGACTCGTGCTAAACTTGATGAGC
MOUSE 1 -----
RAT 754 CCCTGGAGTACACCATCTACAACCAGGAGCTCAACGAGACTCGCGCAAAGCTTGATGAGC
1021 1021.....1030.....1040.....1050.....1060.....1070.....

FLY 610 -----GACAGCAAGGTGGAGAAAA-----
CELEGANS 522 -----
FLOWER 572 -----
SOY 59 -----
FROG 725 TTTCTTCAAAGCGTGAGACGAGTGGAGAGAAATCTCGGCAGTTAAGGGATGCTCAGCAGG
TROUT 1 -----
DANIO 924 TGTCTTCTAAAAGGGAGACCTGTGGAGATAAATCTAGACAACTGCGGGATGCCAACAAAG
PIG 77 -----
HOMO 816 TTTCTGCTAAGCGAGAGACTAGTGGAGAAAAATCCAGACAATTAAGAGATGCTCAGCAGG
COW 725 TTTCTGCTAAGCGAGAGACAAGTGGAGAAAAATCCAGACAATTAAGAGATGCTCAGCAGG
MOUSE 1 -----
RAT 814 TTTCTGCTAAGCGAGAAACAAGCGGAGAGAAATCCAGACAATTAAGAGATGCCCAGCAGG
1081 1081.....1090.....1100.....1110.....1120.....1130.....

FLY 629 -----TCAGCGAGTACCTAAAGACCATCGAGGATCGGCTC
CELEGANS 522 -----A-----
FLOWER 572 -----AACGGTT-----
SOY 59 -----
FROG 785 ATGCCAGGGACAAAATGGAGGAAATAGAACGGCAAGTTCGTGAATTGAAATCAAAGATCT
TROUT 1 -----
DANIO 984 ACGCCAGGGACAAAGTGGAGGAGACGAGCGTGTGGTGCGGGAGCTGAAGTCTCGAATCT
PIG 77 -----
HOMO 876 ATGCAAGAGATAAAATGGAGGATATCGAACGCCAAGTTAGAGAATTGAAAACAAAATTT
COW 785 ATGCAAGAGATAAAATGGAGGATATTGAGCGCCAAGTTAGAGAAGTAAAACAAAATTT
MOUSE 1 -----
RAT 874 ATGCAAGAGATAAAATGGAGGATATTGAGCGCCAAGTTAGAGAAGTAAAACAAAATTT
1141 1141.....1150.....1160.....1170.....1180.....1190.....

FLY 664 CAGACGCTCGAAGAGGAGAAGGAAGAGCTAAAGGAGTACCAGAAGTGGGACA-----
CELEGANS 523 -----
FLOWER 579 -----GGATCTGCTAAAAGAG----ATAGGTGGTACTCGTGTTTA
SOY 59 -----
FROG 845 CTG-CAATGAAAGAGGAAAAGGAACAGCT-----CAGTTCTGAGAGAC-----A
TROUT 1 -----
DANIO 1044 CCG-CCATGAAGGAGGAGAAGGAACAGCT-----GAGCGCCGAGCGAC-----A
PIG 77 -----
HOMO 936 CAG-CTATGAAAGAAGAAAAGAACAGCT-----TAGTGCTGAAAGAC-----A
COW 845 CAG-CTATGAAGGAAGAAAAGGAACAGCT-----CAGTGCTGAAAGAC-----A
MOUSE 1 -----
RAT 934 CAG-CCATGAAAGAAGAAAAGAACAGCT-----CAGTGCGGAGAGAC-----A
1201 1201.....1210.....1220.....1230.....1240.....1250.....

FLY 716 -----AGACGCGCCGCACGCTAGAGTATATACGCTACGAAACCGAGCTGAAGGACACCAA
CELEGANS 523 -----GAAAGTCTGAAAATC----CTGAAGGAAAACCAA
FLOWER 615 TGAGGAGAGGGCGTGC-----TGAGAGTTTAAGAATT----ATGCAGGAAA-CAG
SOY 59 -----
FROG 888 GGAGCAAATTAAC-----AAAGGACCAAG-----TTAGAGCTTA---AACTAA
TROUT 1 -----
DANIO 1087 GGAGCAGATCAAAC-----AGAGGACCAA-----CTGGAGCTCA---AAGCCAA
PIG 77 -----
HOMO 979 AGAGCAGATTAAGC-----AGAGGACTAAG-----TTGGAGCTTA---AAGCCAA
COW 888 GGAACAAATTAAGC-----AGAGAACTAAA-----TTGGAGCTTA---AAGCCAA
MOUSE 1 -----
RAT 977 AGAGCAGATTAAGC-----AAAGGACCAAG-----CTGGAGCTTA---AAGCCAA
1261 1261.....1270.....1280.....1290.....1300.....1310.....

FLY 771 GAAGGCTCTCGACGAGCT--CCAGCTGCAGCGCAAGTCGTCTCGGACAAAAAGAAGATC
CELEGANS 552 GAT-----GAAAACG-----GAAAAA----ATC
FLOWER 659 GAA-----ATAACG-----GAAGCAGATCATC
SOY 59 -----
FROG 930 GGATTTGCAGGATGAACTTGCTGGGAACAGTGAG-----CAACGGAAACG-----
TROUT 1 -----
DANIO 1129 AGATCTGCAGGACGAGCTGGCAGGAAACAGCGAA-----CAGAGGAAACG-----
PIG 77 -----
HOMO 1021 GGATTTACAAGATGAACTAGCAGGCAATAGTGAA-----CAAAGGAAACG-----
COW 930 GGATTTACAAGATGAATTGGCAGGCAATAGTGAA-----CAGAGGAAACG-----
MOUSE 1 -----
RAT 1019 GGACTTACAGGATGAGCTGGCAGGGAACAGTGAG-----CAGCGGAAACG-----
1321 1321.....1330.....1340.....1350.....1360.....1370.....

FLY 829 TACAACATTGAGATTCAGAAGGCACAAG-----AGAAGATCAAGGATGTGCAAAAAGA
CELEGANS 571 CAAGGCCTTCTGAAATACATTG-----ACGAACGACTCCAAC
FLOWER 682 GAAG---TTGTCCACTACTGG-----ATGAAAGACTAAGAGA
SOY 59 -----
FROG 975 -----GCTGTTAAAAGAGAGGGCAGAAGTTACTGGAGAAAATCGAGGAAAAACAAAAGA
TROUT 1 -----
DANIO 1174 -----GCTGCTCAAAGAGCGACAGAAGCTTCTGGAGAAGATTGAAGAGAAGCAGAAGGA
PIG 77 -----
HOMO 1066 -----TTTATTAAAAGAGAGGGCAGAAGCTGCTTGAAAAAATAGAAGAAAAGCAGAAGA
COW 975 -----CTTATTAAAAGAAAAGGCAGAAGCTGCTTGAAAAAATAGAAGAAAAGCAGAAGA
MOUSE 1 -----
RAT 1064 -----TTTATTAAAAGAAAAGACAGAAGCTGCTTGAAAAAATAGAAGAAAAGCAGAAGA
1381 1381.....1390.....1400.....1410.....1420.....1430.....

FLY 881 ACCTTAAAGAGGCAAAGAAGAA-----
CELEGANS 609 TCTTGAAAACGAGAAAGAAGAT-----
FLOWER 717 ATTGGACGAAGAGAAAGAAGAACTCAGAAAATATCAACAACCTTGACAAACAGAGAAAATC
SOY 59 -----
FROG 1029 GCTTGCT-----GAGACTGAACCA---AAGTTCAGCAGTGTGAAACAAAAGAGGAAA
TROUT 1 -----
DANIO 1228 GCTGCAG-----GAAACTGAACCC---AAATTCAACACCGTGAAGGAAAAGAGGAGC
PIG 77 -----
HOMO 1120 ACTGGCA-----GAAACAGAACCC---AAATTCAACAGTGTGAAAGAGAAAAGAAGAAC
COW 1029 ACTGGCA-----GAAACAGAACCT---AAATTCAACAGTGTAAAAGAAAAGAGAGC
MOUSE 1 -----
RAT 1118 ACTGGCA-----GAAACAGAACCG---AAATTCAACAGCGTAAAGGAAAAGAAGAGC
1441 1441.....1450.....1460.....1470.....1480.....1490.....

FLY 903 AGTG-----CAGAGCACAAAGGAGGA----GCGCTCCG--TACTGAT--
CELEGANS 631 -----
FLOWER 777 ACTG-----GAATACACCATTACGACAAAGAGCTTCA--CGATGCTCG
SOY 59 -----
FROG 1079 GTGGGATTGCAAGGCTGGCCAGGCAACTCAGGAAAGAACAGATCTCTATGCCAAGCAAG
TROUT 1 -----
DANIO 1278 GAGGAATTGCCCGGCTTGCTCAGGCCACACAGGAGCGCACAGATCTTTACGCCAAGCAGG
PIG 77 ---AATT-----AGGAAAGAA---TATTTA-----
HOMO 1170 GAGGAATTGCTAGATTGGCTCAAGCTACCCAGGAAAGAACGGATCTTTATGCAAAGCAGG
COW 1079 GAGGAATTGCTAGATTGGCCCAAGCTACCCAAGAGAGAACGGACCTTTATGCAAAGCAGG
MOUSE 1 -----
RAT 1168 GAGGAATTGCTAGATTGGCTCAAGCTACACAGGAAAGAACTGATCTTTATGCAAAGCAGG
1501 1501.....1510.....1520.....1530.....1540.....1550.....

FLY 939 GACGGAGCAGCAACAGTTAC----TGCGCGAGAAAACGAAACT----AGACCTAACCATT
CELEGANS 631 -----
FLOWER 819 GGAGAAACTGGAACAGGTAGAAGTTGCACGAACTAAGGCATCTGAAGAGTCCACAAAAT
SOY 59 -----
FROG 1139 GCCGTGGCAGC-----CAGTTTACATCAAAAGAAGAGA-----GAGATAAGT
TROUT 1 CTCGAGGCA-----
DANIO 1338 GTCGAGGCAGT-----CAGTTCACCTCTAAAGAAGAGC-----GAGACAAAT
PIG 96 ---C-----CACATT---TCAAAGATGTAA-----
HOMO 1230 GTCGAGGAAGC-----CAGTTTACATCAAAAGAAGAAA-----GGGATAAGT
COW 1139 GTCGAGGAAGC-----CAGTTTACATCAAAAGAAGAAA-----GGGATAAGT
MOUSE 1 -----
RAT 1228 GTCGAGGAAGC-----CAGTTTACATCAAAAGAAGAAA-----GAGATAAGT
1561 1561.....1570.....1580.....1590.....1600.....1610.....

FLY 991 GTC-GATCTAAATGACGAGGTTTCAGGGCGACAACAAGTC-----CAAGGAGCGG
CELEGANS 631 -----TTGAAAGA
FLOWER 879 GTATGATAGAGTGGAGAAGGCCAGGACGACTCCAAGTCTTTAGATGAATCCCTGAAAGA
SOY 59 -----
FROG 1181 GGATTA-----AGAAAGAGCTGAAGTCCTTAGACCAGGCCATCAATG-
TROUT 10 -----
DANIO 1380 GGATCA-----AGAAAGAGCTGAAATCTCTGGATCAGGCCATCAATG-
PIG 116 -----
HOMO 1272 GGATTA-----AAAAGGAACTCAAGTCTTTAGATCAGGCTATTAATG-
COW 1181 GGATTA-----AAAAGGAACTCAAGTCTTTAGATCAAGCTATTAATG-
MOUSE 1 -----
RAT 1270 GGATTA-----AGAAGGAACTGAAGTCTTTAGATCAGGCTATTAATG-
1621 1621.....1630.....1640.....1650.....1660.....1670.....

FLY 1039 GCTGAC-CAGGAGCTTAAGAACCTTAAGGTAACGATAGCCGAACCGGAAAAGGAACTGGA
CELEGANS 639 ATA-----TCAGAAATTGGATAAAAACGAAGCGAAGTGTGAATAT--AC-AAT
FLOWER 939 ACTGACAAAGGAGCTTCAGACGTTTATACAAGGAGAAAGAAACTGTTGAAGCTCAAC-AAA
SOY 59 -----
FROG 1223 -----ATAAAAAGCGTCAGATTGCAGCCA-----TTAA
TROUT 10 -----
DANIO 1422 -----ACAAGAAACGGCAGATCGCCGCCA-----TCCA
PIG 116 -----
HOMO 1314 -----ACAAGAAAAGACAGATTGCTGCTA-----TACA
COW 1223 -----ACAAGAAAAGACAGATTGCTGCTA-----TACA
MOUSE 1 -----
RAT 1312 -----ATAAGAAAAGACAGATTGCTGCTA-----TACA
1681 1681.....1690.....1700.....1710.....1720.....1730.....

FLY 1098 CGACGTA----AAGCCAAATACGAGGCGATGAAGCGCAAGGAGGAAGACTGCTCCCGAG
CELEGANS 684 GTATGAT----AATACAAATAAAGAAGCGAT-----AAAAGAGAAAAC-----
FLOWER 998 CTA-----AAGCGTT-----AAAGAAAAGAC-----
SOY 59 -----GAAAAGA-----
FROG 1251 CAAGGATTTGGAAGAAACAGAAGCAA-----ATAA-----GG
TROUT 10 -----
DANIO 1450 CAAAGATCTGGAGGACACCGAGCAA-----ACAA-----AG
PIG 116 -----AATAGGAGGACACTTTACAAAGAGTTGTGTGGGAAATAA-----A-
HOMO 1342 TAAGGATTTGGAAGACACT-----GAAGCAAATAA-----AG
COW 1251 TAAGGATTTGGAAGACACT-----GAGGCAAATAA-----AG
MOUSE 1 -----
RAT 1340 CAAGGATTTGGAAGATAAC-----GAGGCAAATAA-----AG
1741 1741.....1750.....1760.....1770.....1780.....1790.....

FLY 1154 AGCTGCAGCTCAAGGAACAGAAG-----CGCAAGGAGCTTTACGCCAAG----
 CELEGANS 723 ----AAAGCTTGATGAACAGAAAGTTGAACTGAATCAAAAGGATAATAATGTGAAA----
 FLOWER 1020 ----AAAGCT-----GGAGCTTGATGTGAAAGACT
 SOY 67 -----
 FROG 1283 AGAAGAATCT---GGAACAGTATACAAAATTGGA-----
 TROUT 10 -----
 DANIO 1482 AGAGAAACCT---GGAACAGTACAACAAACTGGA-----
 PIG 156 ----ATTCT---CAAGCTAT-----
 HOMO 1374 AGAAAAATCT---GGAGCAGTATAATAAACTGGA-----
 COW 1283 AGAAAAATCT---GGAGCAGTATAATAAACTGGA-----
 MOUSE 1 -----
 RAT 1372 AGAAAAATCT---GGAGCAATATAATAAACTGGA-----
 1801 1801.....1810.....1820.....1830.....1840.....1850.....

FLY 1198 --CAGGGTCGCGGTTT-----ACAGTTCTCCTC-----
 CELEGANS 775 -----AGTCAGT---TGAATGATGTTATTGCTGAAATGGCAA
 FLOWER 1046 TTCAGGATCGAATTACTGAAATATTTCAGTCTAAGAATGATG-----
 SOY 67 -----
 FROG 1314 -TCAAGATT-----TGAATGAGGTAAAGACTCGCGTTG---
 TROUT 10 -----
 DANIO 1513 -CCAGGATC-----TGAACGAAGTGAAGACTCGAGTGG---
 PIG 169 -----
 HOMO 1405 -CCAGGATC-----TTAATGAAGTCAAAGCTCGAGTAG---
 COW 1314 -TCAGGATC-----TTAATGAAGTCAAAGCTCGGGTTG---
 MOUSE 1 -----
 RAT 1403 -TCAGGATC-----TCAATGAAGTCAAAGCTCGAGTTG---
 1861 1861.....1870.....1880.....1890.....1900.....1910.....

FLY 1224 -----TAGGGAGGATCGCG
 CELEGANS 809 AGCTTAAAACCTGATAAGAAGAAGCTGGAATCACTTGGAAAGAGGACTTCGTGAGGATAAAG
 FLOWER 1088 -----CACTT-----G
 SOY 67 -----
 FROG 1346 ----AAGAACTGGATAAAAAATACT-----ATGAAG
 TROUT 10 -----
 DANIO 1545 ----AAGAGCTGGACAAGAAGTACT-----ACGAGG
 PIG 169 -----AAG
 HOMO 1437 ----AAGAACTGGACAGAAAATATT-----ACGAAG
 COW 1346 ----AAGAACTGGACAGAAAATACT-----ATGAAG
 MOUSE 1 -----
 RAT 1435 ----AAGAACTGGACAGAAAATATT-----ATGAAG
 1921 1921.....1930.....1940.....1950.....1960.....1970.....

FLY 1238 ACAAATGGA-----
 CELEGANS 869 AGACACTTCAGGCTGAGGAAACTAAAATGGTTGAGGAGAAAATGACGTTGAAGCTTGAAA
 FLOWER 1094 AGCAACTTAATACAGTGGAAA-----GAGAAA-----TGCAG-----
 SOY 67 -----
 FROG 1373 TGAAAAACAAAAAAGACGAGCTTCAGA-----GTGAGA-----GAAA
 TROUT 10 -----
 DANIO 1572 TGAAGAACCGBAAAGGATGAGCTTCAGA-----GCGAGA-----GAAA
 PIG 172 TAAAAACT---GTAACAT---TACAGA-----GT-----
 HOMO 1464 TAAAAAATAAGAAAGATGAACTACAAA-----GTGAAA-----GAAA
 COW 1373 TAAAAAATAAGAAAGATGAATTACAAA-----GTGAAA-----GAAA
 MOUSE 1 -----
 RAT 1462 TGAAAAAATAAGAAAGATGAACTACAAA-----GTGAAA-----GAAA
 1981 1981.....1990.....2000.....2010.....2020.....2030.....

FLY 1247 -----
 CELEGANS 929 TTGACTCGTTGAATGAGGAGAATACAAGAGAACGCCAGGGACGTCAAACGCGGAACACT
 FLOWER 1126 --GATTCTTTGA-----
 SOY 67 -----
 FROG 1410 TT-ACTTATGGAGGGAGGAGAATGC---TGAACAGCA-----ATCCCT
 TROUT 10 -----
 DANIO 1609 TT-ACCTGTGGAGAGAGGAGAACGC---AGAACAGCA-----GCGCT
 PIG 195 -----
 HOMO 1501 CT-ACTTGTGGAGAGAAGAGAATGC---AGAACAGCA-----AGCACT
 COW 1410 TT-ACTTGTGGAGAGAAGAGAATGC---AGAACAGCA-----GGCACT
 MOUSE 1 -----ATGC---AGAACAACA-----AGCACT
 RAT 1499 TT-ACTTGTGGAGAGAGGAGAATGC---AGAACAGCA-----AGCACT
 2041 2041.....2050.....2060.....2070.....2080.....2090.....

FLY 1247 -----TCACCAACGAG-----CTGAAGTCAATTA---
CELEGANS 989 CGTTCAAGGTGTCGGTGATGAGATTTTCAAGAACGAGGAGCTCGATACGATTAAGC
FLOWER 1136 -----GGGAACCTGGAGGCGATTAAGC
SOY 67 -----
FROG 1449 CGCTGCCA-----AAAGG-GAAGATCTTGAGAAGA-----
TROUT 10 -----
DANIO 1648 GGCAGCCA-----AACGA-GAAGACCTGGAGAAGA-----
PIG 195 -----
HOMO 1540 TGCTGCTA-----AAAGA-GAAGATCTTGAAAAGA-----
COW 1449 TGCTGCTA-----AAAGA-GAAGATCTTGAAAAGA-----
MOUSE 20 TGCTGCTA-----AAAGA-GAAGACCTTGAGAAGA-----
RAT 1538 TGCCGCTA-----AGAGA-GAAGACCTTGAGAAGA-----
2101 2101.....2110.....2120.....2130.....2140.....2150.....

FLY 1271 -----GCAAACAGACGCGGAT-----
CELEGANS 1049 CTGAATATGCTAAGCTTCTGGAAGAGGAATCCCGTCTGAAAACCGACATCAGAATTGACG
FLOWER 1157 CTTTGTATGAAAGTCAAGTTGACAAGGA-----AAACCAGACA-----
SOY 67 -----
FROG 1478 -----ACAACAGCT-----CCTCAGGGC-----
TROUT 10 -----
DANIO 1677 -----ACAACAGCT-----ACTGCGAGC-----
PIG 195 -----
HOMO 1569 -----AGCAACAACCT-----TCTTAGAGC-----
COW 1478 -----AACAGCAACT-----CCTTAGAGC-----
MOUSE 49 -----AGCAGCAACT-----TCTTAGAGC-----
RAT 1567 -----AGCAGCAGCT-----TCTTAGAGC-----
2161 2161.....2170.....2180.....2190.....2200.....2210.....

FLY 1288 -----AAAATCGCTCATCACGCAAAACTCG-----T
CELEGANS 1109 AATCCCGTGCAAAAGAGAT--TCTCGCAAAACAGGGCCAACGCAGTCAATTCTCGTCGGT
FLOWER 1195 -----
SOY 67 -----
FROG 1497 -----
TROUT 10 -----
DANIO 1696 -----
PIG 195 -----
HOMO 1588 -----
COW 1497 -----
MOUSE 68 -----
RAT 1586 -----
2221 2221.....2230.....2240.....2250.....2260.....2270.....

FLY 1314 GGAGGATCTGAAGAAGGACGCTACCTCCGAAAAG-----
CELEGANS 1167 CGATGATCGTGATAAG-----TTCCTTCGTAACGAGATTCGTGCTATTTCTGGATTAATT
FLOWER 1195 -----
SOY 67 -----
FROG 1497 -----
TROUT 10 -----
DANIO 1696 -----
PIG 195 -----
HOMO 1588 -----
COW 1497 -----
MOUSE 68 -----
RAT 1586 -----
2281 2281.....2290.....2300.....2310.....2320.....2330.....

FLY 1348 -----GATCTGGGTCAAAAG
CELEGANS 1222 GCTGATAATAAGGAAAGAGAAGAGACGATTCAAAAAGAATTGGCAGATGTTGAACGAGAA
FLOWER 1195 -----TCAAAAAGAAT-----
SOY 67 -----
FROG 1497 -----TGCTACTGGAAAGGCAATTTTAAA-----TGGCATTGA-----
TROUT 10 -----
DANIO 1696 -----CGCTACCGGAAAGGCTATTTTGAA-----CGGCATCGA-----
PIG 195 -----A-----
HOMO 1588 -----AGCAACAGGAAAGGCCATTTTAAA-----TGGAATAGA-----
COW 1497 -----TGCAACAGGAAAGGCCATTTTAAA-----TGGAATAGA-----
MOUSE 68 -----GGCAACAGGAAAGGCCATTTTAAA-----TGGAATAGA-----
RAT 1586 -----GGCAACAGGAAAGGCCATTTTAAA-----TGGAATCGA-----
2341 2341.....2350.....2360.....2370.....2380.....2390.....

FLY 1363 ATCGAGGAGCACTCA-TCGGAACTGGAGCAGCTCCGACTGCAGATCGACGAGCACAA
CELEGANS 1282 GACGAGAAGCTGAAT-AATGAGATACAGAGTATCAGCCGTACAATCGACGA--AAATCGC
FLOWER 1206 -----C-AATGAGCTGGA-----A--AAAACAC
SOY 67 -----
FROG 1530 -----CAGCATCAATAAAGTGTGGAACACTTCAGGCG-----
TROUT 10 -----
DANIO 1729 -----CAGCATTAATAAAGTCCTAGAGCATTTCGGCG-----
PIG 196 -----CATTATAAAA-----
HOMO 1621 -----CAGCATAAACAAAGTGCTAGACCCTTCGGTCG-----
COW 1530 -----TAGCATAAATAAAGTGCTAGACCCTTCGGTCG-----
MOUSE 101 -----TAGCATTAAACAAAGTGCTAGAACATTTTCGGCG-----
RAT 1619 -----CAGCATTAAACAAAGTGTAGACCATTTCGGCG-----
2401 2401.....2410.....2420.....2430.....2440.....2450.....

FLY 1422 GAAGTACTACGAGCT-----TAAGAAGACCAAGGACCAGCATCAGT-CCATGCGAAA
CELEGANS 1339 TACGAAATGGACACTTTTTCGGCTAAATCGACATCTCTGAAACAGGAATACGATGCGGCT
FLOWER 1226 TTAG-----CATTCTT-----TATCAGAAACAGGGA--CGTGCAACT
SOY 67 -----
FROG 1563 -----
TROUT 10 -----
DANIO 1762 -----
PIG 206 -----
HOMO 1654 -----
COW 1563 -----
MOUSE 134 -----
RAT 1652 -----
2461 2461.....2470.....2480.....2490.....2500.....2510.....

FLY 1473 CGAGTTGTGGCGCAAGGAGACACAGATGACGCAGCAGCTGCAGACGCACAAGGAGGAGCT
CELEGANS 1399 TAT---GTGGCTCAACAAACGGCCG-----
FLOWER 1261 CAA---TT---TTCAAATAAGGCTG-----
SOY 67 -----
FROG 1563 -----TAAAGGCA--TAAATCAGCATGTTAT-----
TROUT 10 -----
DANIO 1762 -----GAAGGGCA--TCAACCAGCACGTCAT-----
PIG 206 -----
HOMO 1654 -----AAAAGG-A-ATAAACCAGCATGTTCA-----
COW 1563 -----AAAAGG-A-ATAAACCAGCATGTTCA-----
MOUSE 134 -----AAAAGGT-ATAAACCAGCATGTTCA-----
RAT 1652 -----GAAGGT-ATAAACCAGCATGTGCA-----
2521 2521.....2530.....2540.....2550.....2560.....2570.....

FLY 1533 ATCGCGGGCGGACCAGGCGCTGCGCAGCATGGCCGGCAAGCCGATCCTGAACGGTTGCGA
CELEGANS 1421 ---CCCGTGAAGAAAAGGCGATTTCGAGACAAAATTGGCA----ATACCGAACAG----GA
FLOWER 1280 ---CCC-----GAGATAAATGGC-----
SOY 67 -----
FROG 1587 -----CAACGGC-----
TROUT 10 -----
DANIO 1786 -----CAACGGC-----
PIG 206 -----
HOMO 1678 -----AAATGGC-----
COW 1587 -----AAATGGC-----
MOUSE 159 -----AAATGGC-----
RAT 1676 -----AAATGGC-----
2581 2581.....2590.....2600.....2610.....2620.....2630.....

FLY 1593 T---TCTGTGCGCAAGGTTT---TCGACAGCT-TTGTGGAACGTGGCGGTCAATCGGCGGA
CELEGANS 1470 TATTTTTCAGCGGCAAATGATCAATTGAGACGTATTGTGCGCAG-----
FLOWER 1295 -----
SOY 67 -----
FROG 1594 -----
TROUT 10 -----
DANIO 1793 -----
PIG 206 -----
HOMO 1685 -----
COW 1594 -----
MOUSE 166 -----
RAT 1683 -----
2641 2641.....2650.....2660.....2670.....2680.....2690.....

FLY	1647	GATTGCGAGAGCCTACTATGGACCCGTCATTGAGAACTTCAGCTGCGACAAGACCATCTA
CELEGANS	1512	-----GCCAGTATACAATGGA-----
FLOWER	1295	-----
SOY	67	-----
FROG	1594	-----TATCATGGCATAGTGATGAATAACTTTGACTGTGAGCCAGCTTTCTA
TROUT	10	-----
DANIO	1793	-----TACCACGGCATCGTCATGAATAACTTTGAGTGCAGCCCGCTTTCTA
PIG	206	-----TACAATGACA--GTAAT-----
HOMO	1685	-----TATCATGGTATTGTAATGAATAACTTTGAATGTGAACCAGCTTTCTA
COW	1594	-----TATCATGGTATTGTGATGAATAACTTTGAATGTGAGCCTGCTTTCTA
MOUSE	166	-----TACCATGGCATCGTAATGAATAACTTTGAGTGTGAACCAGCTTTCTA
RAT	1683	-----TACCATGGCATCGTGATGAATAACTTTGAGTGCGAACCAGCTTTCTA
	2701	2701.....2710.....2720.....2730.....2740.....2750.....
FLY	1707	CACGGCGGTGGAGGTAACAGCCGCCAATCGGTTATTCCATCACATTGTGGAGTCAGAATA
CELEGANS	1528	-----ATCACA---GGAGTCCG----
FLOWER	1295	-----TCAG----
SOY	67	-----
FROG	1641	CACCTGTGTTGAGGTCCTGCTGGAAACAGGTTGTTCTATCATATTGTTGAATCGGATGA
TROUT	10	-----
DANIO	1840	CACCTGTGTTGAGGTGACTGCAGGAACCAGGTTGTTTTACCACATTGTGGAGACAGATGA
PIG	221	-----
HOMO	1732	CACATGCGTGGAAGTCACTGCTGGAAACAGGTTATTTTATCACATTGTTGATTCAGATGA
COW	1641	CACATGTGTGGAAGTCACTGCTGGAAACAGGTTATTTTATCACATTGTTGATTCAGATGA
MOUSE	213	TACTTGTGTGGAAGTCACTGCTGGTAAACAGGTTATTTTATCACATTGTTGATTCAGATGA
RAT	1730	TACTTGTGTGGAAGTCACTGCGGTAACAGGTTATTCTATCACATTGTGCTGATTCAGATGA
	2761	2761.....2770.....2780.....2790.....2800.....2810.....
FLY	1767	CGAGGGCACGCAAATCCTCAAGGAGATGAATAAGCTGAAATTACCGGGCGAGGT---GAC
CELEGANS	1542	-----TAAAGTAATTGAAGAGTTTAA-----
FLOWER	1299	-----GAAAGAGATTGAAGATCTTAA-----GCGTGTTCTAGAC
SOY	67	-----
FROG	1701	GGTCAGCACCAAGATATTAATGGAGTTTAATAAAATGAACCTGCCTGGAGAAGT---AAC
TROUT	10	-----
DANIO	1900	AGTGAGTACAAAGATCCTGATGGAGTTTAATAAGATGAACTTGCCTGGTGAAGT---CAC
PIG	221	-----ATAAAGGACT-----
HOMO	1792	AGTCAGCACGAAGATTTTAAATGGAGTTTAATAAAATGAATCTTCTGGAGAGGT---TAC
COW	1701	AGTCAGCACGAAGATTTTGAATGGAGTTTAATAAAATGAATCTTCTGGAGAGGT---TAC
MOUSE	273	AGTCAGCACGAAAATTTTAAATGGAGTTCAATAAAATGAATCTTCTGGAGAGGT---GAC
RAT	1790	AGTCAGCACGAAGATATTAATGGAGTTCAATAAAATGAATCTTCTGGAGAGGT---GAC
	2821	2821.....2830.....2840.....2850.....2860.....2870.....
FLY	1824	CTTTATGCCCTGAATCG-----ACTTCAGGTTAAAATACAC-GATTATCCGGATGATCC
CELEGANS	1563	-----
FLOWER	1333	TCAAATACTGTTCAAGAGCAAAAACCTCAGGATGAAATC-----
SOY	67	-----AGGATG-----
FROG	1758	ATTTCTACCTCTCAACAACTGGATGTTAGA-----GACACTGCCTACCCAGAGACTAA
TROUT	10	-----
DANIO	1957	CTTCTGCCCCTTAGCAAACCTGGACGTCGG-----GACACGGCTTACCCTGAGACTAA
PIG	232	-----
HOMO	1849	TTTTCTGCCTCTTAACAAGTTAGATGTCAGG-----GATACAGCCTATCCTGAAACCAA
COW	1758	TTTCTGCTCTTAACAAGTTAGATGTAAGG-----GATACTGCCTATCCTGAAACCAA
MOUSE	330	TTTCTGCTCTTAACAAGTTAGATGTGAGA-----GATACTGCCTATCCTGAAACTAA
RAT	1847	TTTCTGCTCTTAACAAGTTAGATGTGAGG-----GACACTGCCTATCCTGAAACTAA
	2881	2881.....2890.....2900.....2910.....2920.....2930.....
FLY	1878	CGACTCCATACCTATGATCTCCAACTGAAGTACGATGAACAGCACGACAAGGCGCTGAG
CELEGANS	1563	-----
FLOWER	1373	-----TTCGCTCAATACTGA-----CTTGACA-----
SOY	73	-----
FROG	1812	TGATGCCATCCCAATGATAAGCAAGCTTCGATATAATCTTCGATTTGATAAAGCTTTCAA
TROUT	10	-----
DANIO	2011	TGATGCAATCCCCATGATCAGCAAGCTCCGTTACAGTCAAAAACCTTCGACAAGGCTTTCAA
PIG	232	-----
HOMO	1903	TGATGCTATTTCCTATGATCAGCAAACCTGAGGTACAATCCAGATTTGACAAAGCTTTCAA
COW	1812	TGATGCTATTTCCTATGATAAGTAAATGAGGTACAATCCAGATTTGACAAAGCTTTCAA
MOUSE	384	CGATGCTATTTCCTATGATCAGTAAGCTGAGGTACAATCCAGATTTGACAAAGCTTTCAA
RAT	1901	CGATGCTATTTCCTATGATCAGTAAGCTGAGGTACAATCCAGATTCGACAAGCTTTCAA
	2941	2941.....2950.....2960.....2970.....2980.....2990.....

FLY 1938 GTATATCTTTGGAAAAACGCTAATCTGCAGAAATTTGGAGCGCGCCACCGAGCTGGCCAA
CELEGANS 1563 -----
FLOWER 1396 -----GAGCGTG-----AT
SOY 73 -----
FROG 1872 GCACGTTTTTTGGAAAGACTCTTATATGCCCGCAGTATGGAAGTATCTACGCAGCTGGC---
TROUT 10 -----
DANIO 2071 ACACGTGTTTTGGGAAGACTCTGATTTGCCCGCAGTATGGAAGTGTCCACTCAGCTGGC---
PIG 232 --ATGTAT-----
HOMO 1963 ACATGTGTTTTGGAAAGACTCTTATTTGTCGTAGCATGGAAGTTTCAACCCAGCTGGC---
COW 1872 ACATGTATTTGGAAAAACACTTATTTGTCGTAGTATGGAAGTTTCAACCCAGTTGGC---
MOUSE 444 ACATGTATTTGGAAAGACACTCATCTGTCTGGAGCATGGAAGTTTCAACTCAGCTGGC---
RAT 1961 ACATGTGTTTTGGAAAGACACTCATCTGTCTGGAGCATGGAGGTTTCCACTCAGCTAGC---
3001 3001.....3010.....3020.....3030.....3040.....3050.....

FLY 1998 GAGCACTGGGCT-----GGATTGCGTTACGCTGGACGGAGATCAAGTGTCTCCAAG
CELEGANS 1563 -----
FLOWER 1405 GAGCAC-----ATCAAG-----
SOY 73 -----
FROG 1929 -----CAGGGCATTACTATGGATTGCATCACCTTGGAAAGGTGATCAGGTGAGCCATCGG
TROUT 10 -----
DANIO 2128 -----TCGAGCTTTCACCATGGATTGCATCACTCTGGAGGGTGATCAGGTGAGTCACCGT
PIG 238 -----
HOMO 2020 -----CCGTGCTTTCACTATGGACTGTATTACTTTGGAAGGTGACCAAGTCAGCCATCGG
COW 1929 -----CCGTGCTTTCACTATGGACTGCATAACCTTGGAAAGGTGACCAAGTTAGTCATCGA
MOUSE 501 -----CCGGGCCTTCACTATGGACTGTATTACTTTGGAAGGTGATCAAGTCAGCCATCGA
RAT 2018 -----TCGTGCCTTCACTATGGACTGCATTACTCTGGAAGGTGATCAAGTCAGCCATCGA
3061 3061.....3070.....3080.....3090.....3100.....3110.....

FLY 2050 GGATCCCTCACTGGCGGCTATTTCAATACATCCCGTTCCCGTCTTGAGATGCAAAAG---
CELEGANS 1563 -----
FLOWER 1417 -----AAACATGAAGTT-----
SOY 73 -----
FROG 1984 GGGGCCCTAACAGGGGGTACTATGATACAAGAAAGTCCCGCCTTGAACCTACAGAAAGAC
TROUT 10 -----
DANIO 2183 GGAGCTCTGACTGGCGGTTACTACGACACTCGTAAGTCCCGTCTGGAGCTGCAGAAGGAC
PIG 238 -GCTCTATGTCTGAAGGCT-----
HOMO 2075 GGTGCTCTAACTGGGGGTTATTATGACACAAGGAAGTCTCGACTTGAATTGCAAAAAGAT
COW 1984 GGTGCTTGTACTGGAGGCTATTATGATACAAGGAAGTCTAGACTTGAATTACAAAAGAC
MOUSE 556 GGTGCTCTGACTGGAGGTTATTACGACACAAGAAAGTCTCGACTTGAATTACAGAAAGAC
RAT 2073 GGTGCTCTGACTGGAGGCTATTACGACACAAGAAAGTCTCGCCTTGAATTACAGAAGGAT
3121 3121.....3130.....3140.....3150.....3160.....3170.....

FLY 2107 -----AAGCGCACGGAATACACCAGC
CELEGANS 1563 -----
FLOWER 1429 -----
SOY 73 -----
FROG 2044 GTGCGCAAAGTGGAGGATGAGCTCCATGCTCTGGAGGCAAAGCTGAATGAGAACCTGCGC
TROUT 10 -----
DANIO 2243 ATGAGGAAGGCCGAGGAGGAGCTTGGAGAAGTGGAGGCCAAACTCAACGAGAAGTTCGCT
PIG 256 -----
HOMO 2135 GTTAGAAAAGCAGAAGAAGAACTAGGTGAACTTGAAGCAAAGCTCAATGAAAACCTGCGC
COW 2044 GTTAGAAAAGCGGAAGAAGAACTTGGTGAGCTTGAAGCAAAGCTCAATGAAAATCTGCGC
MOUSE 616 GTTAGGAAGGCAGAGGAGGAGCTGGGTGAGCTGGAGGCTAAGCTCAATGAAAACCTACGC
RAT 2133 GTTAGGAAAGCAGAGGAGGAGCTGGGTGAGCTCGAAGCTAAGCTCAATGAAAACCTGCGC
3181 3181.....3190.....3200.....3210.....3220.....3230.....

FLY 2128 CAGATAGCTGAAT----TCGAAAAGAAACTCAGCAAGCTGCGAAACGAGCTCAAGTCCAC
CELEGANS 1563 -----AC----ACGAT-----
FLOWER 1429 GAAATTGGTGAAC----TGAA-----
SOY 73 -----
FROG 2104 AGAAACATTGAGAGAATTAATAATGAAATCGATC-AGCTAATGAATCAGATGCAGCAAAT
TROUT 10 -----
DANIO 2303 CGAAACATTGAAACTATCAATAATGAAATTGACC-AGCTGATGAATCAGATGCAGCAGAT
PIG 256 -----ATTAATAAT-----
HOMO 2195 AGAAATATTGAAAGGATTAATAATGAAATTGATC-AGTTGATGAACCAAATGCAGCAGAT
COW 2104 AGAAATATTGAAAGGATTAATAATGAAATTGATC-AGCTTATGAACCAAATGCAGCAAAT
MOUSE 676 AGGAACATTGAAAGGATTAATAATGAAATTGACC-AGTTGATGAACCAAATGCAGCAGAT
RAT 2193 AGAAACATTGAAAGGATTAATAATGAAATTGATC-AATTGATGAACCAAATGCAGCAGAT
3241 3241.....3250.....3260.....3270.....3280.....3290.....

FLY 2184 CGAGAACAACATCAACTCAATCGTAT-----
CELEGANS 1570 -----AATCGTA-----
FLOWER 1447 -----TCTCGTATTTCCAAGTCCCATGAACTATTCAACTAAAAAG
SOY 73 -----
FROG 2163 TGAGACCCA-----GCAGAGGAAATTTAAAGCTTCTCGGGACAGTATATTAT-----
TROUT 10 -----
DANIO 2362 CGAGACCCA-----GCAGAGGAAAGTTCAAGGCCTCCAGGGACAGTATTCTGT-----
PIG 265 -----TAC-----
HOMO 2254 CGAGACCCA-----GCAAAGGAAATTTAAAGCATCTAGAGATAGCATATTAT-----
COW 2163 AGAGACTCA-----GCAAAGGAAATTTAAAGCATCTCGAGATAGCATATTAT-----
MOUSE 735 AGAGACCCA-----ACAAAGAAAATTTAAAGCATCCAGAGATAGCATATTAT-----
RAT 2252 AGAGACCCA-----ACAGAGAAAATTTAAAGCATCCAGAGATAGCACCTTAT-----
3301 3301.....3310.....3320.....3330.....3340.....3350.....

FLY 2210 -----
CELEGANS 1577 -----
FLOWER 1489 AGGGAGAGAGATGAAGAACAAGAAAAAGAAAGGAAAAATGGGGAGAAGAAAGTCAACTT
SOY 73 -----
FROG 2210 -----CAGAGATGAAAATGCTCAA-----GAAAAGA-----
TROUT 10 -----
DANIO 2409 -----CTGAGATGAAGATGCTGAAA-----GAGAAGA-----
PIG 268 -----CAGATATTTAGGTTTAAAT-----
HOMO 2301 -----CAGAAATGAAGATGCTAAAA-----GAGAAGA-----
COW 2210 -----CAGAAATGAAGATGTTAAAA-----GAGAAGA-----
MOUSE 782 -----CAGAGATGAAGATGCTAAAA-----GAGAAGA-----
RAT 2299 -----CAGAGATGAAGATGCTAAAA-----GAGAAGA-----
3361 3361.....3370.....3380.....3390.....3400.....3410.....

FLY 2210 -----CCGAGATGCAGAAGACGGAAAC-----
CELEGANS 1577 -----ATGGACAACACGA-----
FLOWER 1549 TCTTCTGAGATTGACAAGTTGAAAACAGAACTTGAACGGGCAAAGAAAAACCTTGATCAT
SOY 73 -----GTGATCAT
FROG 2237 -----
TROUT 10 -----
DANIO 2436 -----
PIG 287 -----
HOMO 2328 -----
COW 2237 -----
MOUSE 809 -----
RAT 2326 -----
3421 3421.....3430.....3440.....3450.....3460.....3470.....

FLY 2232 -----
CELEGANS 1590 -----TGACGTC-----
FLOWER 1609 GCAACTCCAGGAGATGTAAGGAGAGGGCTGAACTCTATTTCGACGGATTTGTGCAGACTAT
SOY 81 G-----
FROG 2237 -----
TROUT 10 -----
DANIO 2436 -----
PIG 287 -----
HOMO 2328 -----
COW 2237 -----
MOUSE 809 -----
RAT 2326 -----
3481 3481.....3490.....3500.....3510.....3520.....3530.....

FLY 2232 -----GAAGCAGGGCA-----
CELEGANS 1597 ---ATCAATGGATATTATGGTACTGTCTATTGAGTTGGCAGAAGTCCGGATATGTTTAGG
FLOWER 1669 AGAATCAATGGAGTTTTTGGTCCACTTGTTGAGTTGGTTGATTGCGATGAAAAGTTTTTC
SOY 82 -----
FROG 2237 -----G
TROUT 10 -----
DANIO 2436 -----G
PIG 287 -----
HOMO 2328 -----G
COW 2237 -----G
MOUSE 809 -----G
RAT 2326 -----G
3541 3541.....3550.....3560.....3570.....3580.....3590.....

FLY 2243 -----AGTCG-----
CELEGANS 1654 ACAGCTGTCG-----
FLOWER 1729 ACTGCAGTTG-----
SOY 82 -----
FROG 2238 GCAGCAGTCTGAGAAAACCTTCATGCCTAAGCAAAGAAGTCTGCAAAGTTTGGAGGCGAG
TROUT 10 -----
DANIO 2437 ACAGCAGTCGGAGAAGACTTTCATGCCCAAGCAACGTAGTCTTCAGAGTCTGGAAGCCAG
PIG 287 -----TTACA-----
HOMO 2329 GCAGCAGTCAGAGAAAACCTTCATGCCTAAGCAACGTAGCTTACAGAGTTTGGAGGCAAG
COW 2238 GCAGCAGTCAGAGAAAACCTTTATGCCCAAGCAACGTAGCTTACAAAGTTTGGAGGCAAG
MOUSE 810 ACAGCAATCAGAAAAGACCTTCATGCCAAAGCAACGTAGCTTACAAAGCTTGGAGGCAAG
RAT 2327 ACAGCAGTCAGAAAAGACCTTCATGCCAAAGCAACGCAGTTTGCAGAGTCTGGAGGCCAG
3601 3601.....3610.....3620.....3630.....3640.....3650.....

FLY 2248 -----AAGG-----
CELEGANS 1664 -----AGGTTATTGCA-----
FLOWER 1739 -----AAGTCACTGCT-----
SOY 82 -----
FROG 2298 TTTACATGCCATGGAGTCAACTAGGGAGTCTCTGAAAGCCGAAGTGGGCACAGACCTGCT
TROUT 10 -----
DANIO 2497 TCTGCACGCCATGGAGAGCACACGCGAGTCCCTGAAGGCCGAGCTGGGGCGGATCTGCT
PIG 292 -----GTTCTGGTAGAAGAATCATG-----T
HOMO 2389 CTTGCATGCTATGGAGTCTACCAGAGAGTCAATTGAAAGCAGAAGTGGGAAGTGAATTTGCT
COW 2298 TTTGCATGCTATGGAGTCCACCAGAGAATCACTGAAAGCAGAAGTGGGAAGTGAATTTGCT
MOUSE 870 TCTGCATGCTATGGAGTCCACCAGAGAGTCACTGAAAGCGGAGCTAGGGACGGATTTGCT
RAT 2387 TCTGCACGCTATGGAGTGCACCAGAGAGTCTGCTGAAGGCAGAGCTAGGGACAGATTTGCC
3661 3661.....3670.....3680.....3690.....3700.....3710.....

FLY 2252 -----
CELEGANS 1675 -----
FLOWER 1750 -----
SOY 82 -----
FROG 2358 GTCACAGCTCAGTCTTGAAGACCAAAAAGGGTGGATGCCCTCAACGATGAGATTCGACA
TROUT 10 -----
DANIO 2557 TTCTCAGCTCAGTTTGAAGATCAGAGGATCAGCGCAGGGTGGACGACCTCAATGATGAGATCCGACA
PIG 314 TACTATAC-----
HOMO 2449 TTCTCAACTGAGTTTGAAGATCAGAAGAGAGTAGATGCACTGAATGATGAGATTCGTC
COW 2358 TTCTCAACTTAGTCTTGAAGATCAGAAGAGGGTAGATGCACTGAATGATGAAATTCGTC
MOUSE 930 TTCTCAACTCAGTCTGGAAGATCAGAAAAGAGTCGACGCTCTGAATGATGAAATCCGTCA
RAT 2447 CTCTCAGCTCAGCCTGGAAGACCAGAAAAGAGTCGACGCACTGAATGACGAGATCCGGCA
3721 3721.....3730.....3740.....3750.....3760.....3770.....

FLY 2252 -----ATGTATTCGAAAAGG-----
CELEGANS 1675 -----CAGAATCGACTTTTCTATCATGTCGTCGAGACTGATCGAATCGCCACGAA
FLOWER 1750 -----GGAAACAGCCTGTTTAACTGTTGAGTTGAGAATGATGATATTTCAACCAA
SOY 82 -----
FROG 2418 GTTGCAGCAAGAAAACAGGC-----
TROUT 10 -----
DANIO 2617 GCTGCAGCAGGATAACAGAC-----
PIG 322 -----AC-----
HOMO 2509 ACTTCAGCAGGAAAACAGAC-----
COW 2418 ACTTCAGCAGGAAAACAGAC-----
MOUSE 990 GCTGCAGCAGGAAAACAGAC-----
RAT 2507 GCTTCAGCAGGAAAACAGAC-----
3781 3781.....3790.....3800.....3810.....3820.....3830.....

FLY 2267 -----TGCAGGGCGAGATTCGCCT-----GATGAA
CELEGANS 1725 AATCCTCCGAAAATTCAACGAAATGCAACTGCCCGGCGAGATTAATTTCTTCCCGATGAA
FLOWER 1800 GATAATTAGACACCTGAATTCTCTCAA--GGGTGGACGTGTGACCTTCTACCTCTGAA
SOY 82 -----
FROG 2438 -----
TROUT 10 -----
DANIO 2637 -----
PIG 324 -----
HOMO 2529 -----
COW 2438 -----
MOUSE 1010 -----
RAT 2527 -----
3841 3841.....3850.....3860.....3870.....3880.....3890.....

FLY 2292 GGAGGAGCTGGTGCG---CATCGAGCAGTATCGTGCGCCCAAGGAGCGCTCACTGGCCC
 CELEGANS 1785 CCGTGTGTTCGGCGCCAAGACAACGCGATTTGT-----CCAATAATTCGAACGCTCGCCC
 FLOWER 1857 TCGGATAAAGGCGCCTCG---CGTCAACTAT-----CCTAAAGAT-----
 SOY 82 -----
 FROG 2438 -----
 TROUT 10 -----
 DANIO 2637 -----
 PIG 324 -----
 HOMO 2529 -----
 COW 2438 -----
 MOUSE 1010 -----
 RAT 2527 -----
 3901 3901.....3910.....3920.....3930.....3940.....3950.....

FLY 2348 AATGC-----
 CELEGANS 1839 AATGTCTGATGTGATCGATTACGAGGTTCAATACGATAAAGTGTTCAAATCAATCACAGC
 FLOWER 1894 ---TCTGATG---CAATACCTCTGCTCAAAAAGTTAAA--GTTTCGATTCA-----
 SOY 82 -----
 FROG 2438 -----
 TROUT 10 -----
 DANIO 2637 -----
 PIG 324 -----
 HOMO 2529 -----
 COW 2438 -----
 MOUSE 1010 -----
 RAT 2527 -----
 3961 3961.....3970.....3980.....3990.....4000.....4010.....

FLY 2353 -----
 CELEGANS 1899 GAACGTGATAAATCGTCCGAACCTTTGATCAAGCTGCT-----CGTGA
 FLOWER 1936 -----AAGTTTGAACCAGCATTGGGTTCAGGTTTTTGGTAGAACAGTAGTATGCCGTGA
 SOY 82 -----
 FROG 2438 -----
 TROUT 10 -----
 DANIO 2637 -----
 PIG 324 -----
 HOMO 2529 -----
 COW 2438 -----
 MOUSE 1010 -----
 RAT 2527 -----
 4021 4021.....4030.....4040.....4050.....4060.....4070.....

FLY 2353 -----AAGGCCTCATT-----GG
 CELEGANS 1941 TCT-----TCGTAACGAGGGATTC-----GACGTCG-----TATCAGTTGACGG
 FLOWER 1989 TCTGAATGTGGCAACAAGAGTTGCTAAGAATGATGACCTCGATTGTATAACTATGGAAGG
 SOY 82 -----
 FROG 2438 -----AACTCCTGA-----
 TROUT 10 -----
 DANIO 2637 -----AGCTGCTCA-----
 PIG 324 -----ATCTTCCAA-----
 HOMO 2529 -----AGTTGCTAA-----
 COW 2438 -----AACTACTGA-----
 MOUSE 1010 -----AGCTGCTAA-----
 RAT 2527 -----AGCTGCTGA-----
 4081 4081.....4090.....4100.....4110.....4120.....4130.....

FLY 2366 AGTCCA--TGACCAGTACG-----AAATCTAGTTTGGAG
 CELEGANS 1980 AGATCAA-----
 FLOWER 2049 TGACCAGGTGAGCAGAAAGGGTGGTATGACCGATCAGCAGATTACACAGCTTGTTACTGA
 SOY 82 -----
 FROG 2447 -----
 TROUT 10 -----
 DANIO 2646 -----
 PIG 333 -----
 HOMO 2538 -----
 COW 2447 -----
 MOUSE 1019 -----
 RAT 2536 -----
 4141 4141.....4150.....4160.....4170.....4180.....4190.....

FLY	2398	GCGG-----AGCTGAAGCAGGAGCTGATGTCGACGTTGTC-----GTCGCAGG
CELEGANS	1987	-----
FLOWER	2109	GCAGCAGAGACTTGAAGCAG-----ACTGGACGCTCTGCAAATTACAGGTGGAGCAAC
SOY	82	-----
FROG	2447	-----
TROUT	10	-----
DANIO	2646	-----
PIG	333	-----
HOMO	2538	-----
COW	2447	-----
MOUSE	1019	-----
RAT	2536	-----
	4201	4201.....4210.....4220.....4230.....4240.....4250.....
FLY	2441	ATCAGCGTGAG-----
CELEGANS	1987	-----
FLOWER	2162	TTAAGCAAGAGATAGCTAACGCTAATAAGCAGAAACATGCTATACATAAAGCCATTGAAT
SOY	82	-----
FROG	2447	-----
TROUT	10	-----
DANIO	2646	-----
PIG	333	-----
HOMO	2538	-----
COW	2447	-----
MOUSE	1019	-----
RAT	2536	-----
	4261	4261.....4270.....4280.....4290.....4300.....4310.....
FLY	2452	-----ATTGACCAGCT-----
CELEGANS	1987	-----ATGT
FLOWER	2222	ATAAGGAGAAATTACTAGGTGATATTAGAACACGAATTGACCAGGTTAGATCCAGCATGT
SOY	82	-----
FROG	2447	-----
TROUT	10	-----
DANIO	2646	-----
PIG	333	-----
HOMO	2538	-----
COW	2447	-----
MOUSE	1019	-----
RAT	2536	-----
	4321	4321.....4330.....4340.....4350.....4360.....4370.....
FLY	2463	-----GAACG-----
CELEGANS	1991	C-----GAAG
FLOWER	2282	CTATGAAAGAAGCTGAAATGGGAACGGA-----ACTTGTGGATC-ACCTAACTCCAGAAG
SOY	82	-----
FROG	2447	--ATGAGAGAA--TTAAGCTGGAGGGAACAATCACTAGAGTAGAGACCTACCTTAATGAG
TROUT	10	-----
DANIO	2646	--ATGAAAGAA--TTAAACTGGAGGGAATCATGACCAGGGTGGAGACGTACCTCAATGAA
PIG	333	--A-----CCAGTGGGCAATATTTTC-----
HOMO	2538	--ATGAAAGAA--TTAAATTAGAAGGTATTATTACTCGAGTAGAGACTTATCTCAATGAG
COW	2447	--ATGAAAGAA--TTAAATTAGAAGGTATTATTACTCGAGTAGAGACTTACCTCAATGAG
MOUSE	1019	--ATGAAAGAA--TTAAACTAGAAGGCATTATTACTCGAGTAGAGACTTACCTGAATGAG
RAT	2536	--ATGAAAGAA--TTAAACTAGAAGGCATTATTACTCGAGTAGAGACTTACCTCAATGAG
	4381	4381.....4390.....4400.....4410.....4420.....4430.....
FLY	2468	-----
CELEGANS	1996	AA----AGGAGTAATGACGGGAGGATTTATCGACAAAAAGCGTAGTAAACTCGAGCTTCA
FLOWER	2336	AA----AGG-----GAGCAATTGTCGAAATTAAACCCAGAAATC-----
SOY	82	-----
FROG	2503	AATCTCAGGA--AGAGGCTGGACCAAGTG--GAACAGGAGCTAAATGAACT-----
TROUT	10	-----
DANIO	2702	AACCTGCGCA--AACGTCTTGATCAAGTC--GAGCAGGAATTAAATGAACT-----
PIG	353	-----AATTAACC-----
HOMO	2594	AATCTGAGAA--AACGCTTGGACCAAGTA--GAACAGGAACTTAATGAGCT-----
COW	2503	AATTTGAGAA--AACGCTTGGACCAAGTA--GAACAGGAACTCAATGAACT-----
MOUSE	1075	AATCTGAGGA--AACGCTTGGACCAAGTA--GAACAGGAACTTAATGAACT-----
RAT	2592	AATCTGAGGA--AACGTCTGGACCAAGTA--GAGCAGGAACTTAATGAACT-----
	4441	4441.....4450.....4460.....4470.....4480.....4490.....

FLY 2468 -----ACGACAT---TCGTCGA-----CTGAACC
CELEGANS 2052 CACTCAGAAAGATCGATTACGAAAGAGCTCGCCGAGCTGCAGAAAAGTTTGGCAGAA--
FLOWER 2371 -----AAGGATC---TTAAGGAA-----AAAAAATTTGCATACCA
SOY 82 -----
FROG 2550 -----
TROUT 10 -----
DANIO 2749 -----
PIG 361 -----
HOMO 2641 -----
COW 2550 -----
MOUSE 1122 -----
RAT 2639 -----
4501 4501.....4510.....4520.....4530.....4540.....4550.....

FLY 2489 AG--GAGAATA-----AGGAAGCGTTT-----
CELEGANS 2110 -GCCGAGAAAATGGTTCGAGAGAGGACACAGGAAGCGGAA-----
FLOWER 2403 GGCCGATCGCATTGAGAGGGAGA-----
SOY 82 -----
FROG 2550 -----ACGGGAGA-----CGGAGGGGGGCACTGTGCTCA-CTGCTACTAC
TROUT 10 -----
DANIO 2749 -----GAGAGAAA-----CGGAAGGAGGAACCGTCTCA-CAGCGACAAC
PIG 361 -----ATGAG-----TGGTATCATCTTCCACAAA
HOMO 2641 -----GAGAGAGA-----CAGAAGGGGGTACTGTTCTCA-CAGCCACAAC
COW 2550 -----GAGAGAGA-----CAGAAGGGGGTACTGTTCTCA-CTGCTACAAC
MOUSE 1122 -----GAGAGAGA-----CAGAAGGTGGTACTGTTCTTA-CTGCCACAAC
RAT 2639 -----GAGAGAGA-----CAGAAGGTGGCACTGTTCTTA-CTGCCACCAC
4561 4561.....4570.....4580.....4590.....4600.....4610.....

FLY 2509 -----ACGC
CELEGANS 2149 -----AAGA
FLOWER 2426 -----
SOY 82 -----
FROG 2589 GTC-----TGAGTTG---GAAGCCATCAACAAACGTGTAAGGACACTCTTGCACGA
TROUT 10 -----
DANIO 2788 ATC-----AGAGTTG---GATGGCATTAAACAAACGCATAAAAAGACACTATGGCTCGC
PIG 385 ATCTTTGGCCATTTCTGCTGTGATCACATCAATA-----
HOMO 2680 AT-----CAGAACT---TGAAGCCATCAATAAAAAGAGTAAAAGACACTATGGCACGA
COW 2589 CT-----CAGAACT---TGAAGCCATCAATAAAAAGGGTGAAAGATAACCATGGCAAGA
MOUSE 1161 AT-----CAGAACT---TGAAGCTATTAATAAAAAGAGTAAAAGATACTATGGCAAGA
RAT 2678 GT-----CACAAC---TGAAGCTATTAATAAAAAGAGTGAAGATACTATGGCAAGA
4621 4621.....4630.....4640.....4650.....4660.....4670.....

FLY 2513 -----AGCGTATGCAGTTCGA-----GG---
CELEGANS 2153 TCCGAAATCGTATGCAACAGCA-----CGAGA
FLOWER 2426 -----CA-----AGAAA
SOY 82 -----
FROG 2638 TCAGAAGGTCTGGATATTACAATTGACAAAACAGAAGTAGAGAGCAAAGATCTTGTGAAA
TROUT 10 -----
DANIO 2837 TCTGAAGATTTGGACACCCTCATTGATAAGACAGAGGTGGAAATCAAGGAGCACCAGAAG
PIG 419 -----
HOMO 2729 TCAGAAGATTTGGACAATTCCATTGATAAAAACAGAAGCTGGAATTAAGGAGCTTCAGAAG
COW 2638 TCAGAAGATTTGGACAATTCCATCGATAAAAACAGAAGCTGGAATTAAGGAGCTGCAGAAG
MOUSE 1210 TCAGAAGATTTGGACAATTCCATTGACAAAACAGAAGCTGGAATTAAGGAGCTCCAGAAA
RAT 2727 TCAGAAGATTTGGATAATTCCATTGACAAAACAGAAGCTGGAATTAAGGAGCTCCAGAAA
4681 4681.....4690.....4700.....4710.....4720.....4730.....

FLY 2531 -----TGCGCAAGAACAAGCTAGACAACCTGCTGATCAACAATCTGTTCC
CELEGANS 2180 ATCAGATTGGAGACTTTCACCGGAAGCACCGAGAGCTCACGGAGGCTAAAAAT-----
FLOWER 2433 AGCAGAGT-----TGGAGGCTAATATT-----
SOY 82 -----
FROG 2698 AGCA---TGGACCGGTGGA-----AGAACATGGAG-----
TROUT 10 -----
DANIO 2897 AGCA---TGGAGCGCTGGA-----AGAACATCGAG-----
PIG 419 -----
HOMO 2789 AGTA---TGGAGCGCTGGA-----AAAATATGGAA-----
COW 2698 AGTA---TGGAGCGCTGGA-----AAAATATGGAA-----
MOUSE 1270 AGTA---TGGAGCGCTGGA-----AAAATATGGAG-----
RAT 2787 AGCA---TGGAGCGCTGGA-----AGAACATGGAG-----
4741 4741.....4750.....4760.....4770.....4780.....4790.....

FLY	2576	GGCGTC-----GCGACGAACTGATCCAAGCGCTGCAGGAGATTC--CGTGGA
CELEGANS	2233	-CGCA-----TTAGTCA--GCAATTCTATATGGTTACGA---
FLOWER	2455	-GCTACCAACTTAAAGAGGAGAATAACTGAGTTACAGGCTACTATAGCTTCCATCGACGA
SOY	82	-----
FROG	2725	-----
TROUT	10	-----
DANIO	2924	-----
PIG	419	-----
HOMO	2816	-----
COW	2725	-----
MOUSE	1297	-----
RAT	2814	-----
	4801	4801.....4810.....4820.....4830.....4840.....4850.....
FLY	2622	GGACCGCAAGCGAA----AGCT-----AAACAATTGCAAAACGGAACTGGTTTCCGCCG
CELEGANS	2264	-----GCACAAAAGAGCCGAAAA-----GGATCA----
FLOWER	2514	TGATAGTTTGCCTAGTTCAGCTGGCACAAAAGAACAGGAACT-----TGATGATGCA
SOY	82	-----
FROG	2725	-----AAAGATCA-----
TROUT	10	-----
DANIO	2924	-----AAGGAGCA-----
PIG	419	-----
HOMO	2816	-----AAAGAACA-----
COW	2725	-----AAAGAACA-----
MOUSE	1297	-----AAAGAACA-----
RAT	2814	-----AAGGAGCA-----
	4861	4861.....4870.....4880.....4890.....4900.....4910.....
FLY	2672	AAAAGA---GAATCAAGAAGGTCAACTCCGATCTGGAGGAGATCGAAAAGCGGGTAATGG
CELEGANS	2289	-ACTGCTCGGGATTAAGAAT-----CATCTACGAGAG----CTTT
FLOWER	2566	AAATTGTCGG--TCAATGAG-----GCTGCAAAAAGA-----
SOY	82	-----
FROG	2733	-----
TROUT	10	-----
DANIO	2932	-----
PIG	419	-----
HOMO	2824	-----
COW	2733	-----
MOUSE	1305	-----
RAT	2822	-----
	4921	4921.....4930.....4940.....4950.....4960.....4970.....
FLY	2729	AGGCTGTGCAACTGCAAAAGGAG--CTG-CAGCAGGAGCTCGAAAACGCATGTGCG-----
CELEGANS	2324	TGGCT-----CAAAGGAGAACTTTGAGCAGGAGATTGGATCGAATATGAGCTCAC
FLOWER	2595	--GCT-----CAAAGTGTCTGTGACAGCA-----
SOY	82	-----
FROG	2733	-----
TROUT	10	-----
DANIO	2932	-----
PIG	419	-----
HOMO	2824	-----
COW	2733	-----
MOUSE	1305	-----
RAT	2822	-----
	4981	4981.....4990.....5000.....5010.....5020.....5030.....
FLY	2781	-----TAAGGAGAAG-GAGGCCGA-----
CELEGANS	2375	AGTTGACTTCTGATGAAGAGCAGACTGTTAAGAAGCTAAGGAAAAAGTGACGAAATGA
FLOWER	2618	-----TTGATGAGAAGA-----
SOY	82	-----
FROG	2733	-----
TROUT	10	-----
DANIO	2932	-----
PIG	419	-----
HOMO	2824	-----
COW	2733	-----
MOUSE	1305	-----
RAT	2822	-----
	5041	5041.....5050.....5060.....5070.....5080.....5090.....

FLY	2799	-----
CELEGANS	2435	CAAAGCAACTGGCAACGGTGTGCGGTCGACGAATGGATCTTATGCATCGAAAAAATGCGA
FLOWER	2630	CAAAGCAA-----
SOY	82	-----
FROG	2733	-----
TROUT	10	-----
DANIO	2932	-----
PIG	419	-----
HOMO	2824	-----
COW	2733	-----
MOUSE	1305	-----
RAT	2822	-----
	5101	5101.....5110.....5120.....5130.....5140.....5150.....
FLY	2799	-GGAGAATCTT-----AACAAAGGA-----
CELEGANS	2495	TTGAGAATCTTTTGACAAAGAAATTGTACAAAACGAAGGAGAGCCTCACTGCGAAAAATC
FLOWER	2638	-----
SOY	82	-----
FROG	2733	-----CATGGA-----CGCCATTAACC
TROUT	10	-----
DANIO	2932	-----GAACGA-----AGCCATCAATC
PIG	419	-----
HOMO	2824	-----TATGGA-----TGCTATAAATC
COW	2733	-----CATGGA-----TGCTATAAATC
MOUSE	1305	-----CATGGA-----TGCCATAAATC
RAT	2822	-----CATGGA-----TGCCATAAATC
	5161	5161.....5170.....5180.....5190.....5200.....5210.....
FLY	2817	-----TTCCAAGCAGCTGGAGAAATGGTTCGACCAAGGA-----
CELEGANS	2555	CGAAATTTTTTTTGCAGCGAGTCGACGACATTTCCGACAACGAACGCCGGCACAACCTTG
FLOWER	2638	-----
SOY	82	-----
FROG	2750	-----
TROUT	10	-----
DANIO	2949	-----
PIG	419	-----
HOMO	2841	-----
COW	2750	-----
MOUSE	1322	-----
RAT	2839	-----
	5221	5221.....5230.....5240.....5250.....5260.....5270.....
FLY	2850	-----GAACATGCTCAACG-----AAAAAAT
CELEGANS	2615	AAAATGCGAATGCTCAACTGACATCACTGCTCACGAGAATGGAATCCACCCGAAAACAAC
FLOWER	2638	-----
SOY	82	-----
FROG	2750	-----
TROUT	10	-----
DANIO	2949	-----
PIG	419	-----
HOMO	2841	-----
COW	2750	-----
MOUSE	1322	-----
RAT	2839	-----
	5281	5281.....5290.....5300.....5310.....5320.....5330.....
FLY	2871	CGATGAGTGTACGGAAAAGATTGCCAGCTTGGGCGCC-----GTGCCGCTAGTTGA
CELEGANS	2675	TGGCGACTGCAATTTCAGAACTTCAAGATTATGAGACAAAAGAGAAGGCTCTTCAGATTA
FLOWER	2638	-----
SOY	82	-----
FROG	2750	-----
TROUT	10	-----
DANIO	2949	-----
PIG	419	-----
HOMO	2841	-----
COW	2750	-----
MOUSE	1322	-----
RAT	2839	-----
	5341	5341.....5350.....5360.....5370.....5380.....5390.....

FLY 2922 TCCTTCTACACACGCATGTCCCTGAAGAACATCTTCAAAGAGCTGGAGAAG-----
 CELEGANS 2735 ATATTGATA-----ATGTTTTGGAGCAACAAC---GAGATTTGGAGAAGCAGCAAGC
 FLOWER 2638 -----
 SOY 82 -----
 FROG 2750 -----ACGACACCAAAGAATTGGAGAAG-----
 TROUT 10 -----
 DANIO 2949 -----ACGACACCAAGGAGCTGGAGAAG-----
 PIG 419 -----
 HOMO 2841 -----ATGATACTAAAGAACTGGAAAAG-----
 COW 2750 -----ATGATACTAAAGAACTAGAAAAG-----
 MOUSE 1322 -----ATGATACTAAAGAGCTGGAGAAG-----
 RAT 2839 -----ACGACACTAAAGAGCTGGAGAAG-----
 5401 5401.....5410.....5420.....5430.....5440.....5450.....

FLY 2974 -----GCAAACCAGCA-----
 CELEGANS 2784 GGATTTCCAGCTGCAATATGATAAAAATTACAGCAAAAGAGGATGAAGTTAAGCAGAAGAG
 FLOWER 2638 -----
 SOY 82 -----
 FROG 2773 -----ATGACCA-----ACGGCAGGGAATGCTCC-----
 TROUT 10 -----
 DANIO 2972 -----ATGACCA-----ACAGACAGGGCATGCTGT-----
 PIG 419 -----TGACTA-----ACC-----
 HOMO 2864 -----ATGACAA-----ATCGGCAAGGCATGCTAT-----
 COW 2773 -----ATGACAA-----ATCGACAAGGCATGCTGC-----
 MOUSE 1345 -----ATGACCA-----ACGGCAAGGCATGCTGT-----
 RAT 2862 -----ATGACCA-----ACGACAGGGCATGCTGT-----
 5461 5461.....5470.....5480.....5490.....5500.....5510.....

FLY 2985 -----
 CELEGANS 2844 AGAGGATAGCTTGAAAAAGCTAATTTTGTCTAGATATTCGATCAAAACTCGAAAAATCA
 FLOWER 2638 -----ATCA
 SOY 82 -----
 FROG 2798 -----
 TROUT 10 -----
 DANIO 2997 -----
 PIG 428 -----
 HOMO 2889 -----
 COW 2798 -----
 MOUSE 1370 -----
 RAT 2887 -----
 5521 5521.....5530.....5540.....5550.....5560.....5570.....

FLY 2985 -----CCTGAAGAAGT-----
 CELEGANS 2904 ATTTTCATACGAAATTTTCAGACTCTGAAGAAGTTGGAGCCAAAAGAGAGCCAATTGAGCA
 FLOWER 2642 -----
 SOY 82 -----
 FROG 2798 -----TGAAGAAG-----
 TROUT 10 -----
 DANIO 2997 -----TAAAGAAG-----
 PIG 428 -----
 HOMO 2889 -----TGAAGAAG-----
 COW 2798 -----TGAAGAAG-----
 MOUSE 1370 -----TGAAGAAG-----
 RAT 2887 -----TGAAGAAG-----
 5581 5581.....5590.....5600.....5610.....5620.....5630.....

FLY 2996 -----ATAACCATGTGAACAAGAA-----
 CELEGANS 2964 CAGAAAATTGAAAATCAGCA-----CATTTTGTCTAGAATATCGAGCAAAA
 FLOWER 2642 -AGAAAATTAAAGATGAGAAAGCAAAGTTAAAGACATTGGAAGATGATTGTAAAGGGACA
 SOY 82 -----
 FROG 2806 -----
 TROUT 10 -----
 DANIO 3005 -----
 PIG 428 -----
 HOMO 2897 -----
 COW 2806 -----
 MOUSE 1378 -----
 RAT 2895 -----
 5641 5641.....5650.....5660.....5670.....5680.....5690.....

FLY 3015 -----
CELEGANS 3010 CTC-----GAAAAAGTT-----CACTCG-AACATGCGCCTTC--
FLOWER 2701 CTACAAGATTTAGATAAAAAAGTTGGAGGAACTGTTTAGCCTTCGCAACACGCTCCTTGCT
SOY 82 -----
FROG 2806 -----
TROUT 10 -----
DANIO 3005 -----
PIG 428 -----
HOMO 2897 -----
COW 2806 -----
MOUSE 1378 -----
RAT 2895 -----
5701 5701.....5710.....5720.....5730.....5740.....5750.....

FLY 3015 -----
CELEGANS 3041 -----TCGGTGCCCTTCCAACGGATACATTC
FLOWER 2761 AAGCAAGATGAGTATACTAAGAAGATTAGGGGATTGGGTCCATTGTTCATCTGACGCTTTT
SOY 82 -----
FROG 2806 ---AAGGAGGAGTGTATGAAGAAGATCCGGGAGCTCGGCTCTCTCCACAGGAGGCCTTC
TROUT 10 -----
DANIO 3005 ---AAAGAGGAGTGCATGAAGAAGATCCGTGAGCTGGGCTCCCTGCCGCAGGAGGCCTTC
PIG 428 -----
HOMO 2897 ---AAAGAAGAGTGTATGAAGAAAATTCGAGAACTTGGATCACTTCCCCAGGAAGCATT
COW 2806 ---AAAGAAGAGTGTATGAAGAAAATTCGAGAACTTGGATCACTTCCACAGGAAGCATT
MOUSE 1378 ---AAGGAGGAGTGTATGAAGAAGATCCGGGAGCTGGGGTCCCTCCCCAGGAAGCATT
RAT 2895 ---AAAGAGGAGTGCATGAAGAAGATCCGAGAGCTGGGGTCCCTTCCCCAGGAAGCATT
5761 5761.....5770.....5780.....5790.....5800.....5810.....

FLY 3015 -----
CELEGANS 3067 -----TCGAAATGGCAAAACGTGAAGCCTCGTGAGCTGGAGAAGAAGCTGCTCGAGTGT
FLOWER 2821 GACACGTATAAACGAAAAATATCAAG-----GAGCTGCAGAAGATGCTACACCGGTGC
SOY 82 -----
FROG 2863 GAAAAGTACCAGACCCTAAGTTTAAAC-----AGTTGTTTTCAGGAAGCTGGAGCAGTGC
TROUT 10 -----
DANIO 3062 GAGAAGTACCAGACGCTCACACTCAAAC-----AGTTGTTTTCAGAAAGCTGGAGCAGTGC
PIG 428 -----TTATTTT-----TGAACTTTAC
HOMO 2954 GAAAAGTACCAGACACTGAGCCTCAAAC-----AGTTGTTTTCGAAAACCTTGAGCAGTGC
COW 2863 GAAAATACCAAACACTGAGCCTCAAAC-----AGTTGTTTTCGAAAACCTTGAAACAGTGC
MOUSE 1435 GAGAAGTACCAGACACTGAGCCTGAAGC-----AGTTGTTTTCGAAAACCTTGAGCAATGC
RAT 2952 GAAAAGTACCAGACACTGAGCCTGAAGC-----AGTTGTTTTCGAAAACCTTGAGCAGTGC
5821 5821.....5830.....5840.....5850.....5860.....5870.....

FLY 3015 -----AGCCCTGGATCAGTTCTT-----
CELEGANS 3121 GTAAATGAGTTGAAAAAGTATGAGAATGTGAACAAAAAGCGTTGGATCAATATATGACT
FLOWER 2875 AGTGAACAGCTGCAACAATTCAGCCATGTCAACAAGAAAGCGCTGGATCAATATGTGAAT
SOY 82 -----
FROG 2917 AACACGGAGCTGAAGAAATACAGCCACGTCAATAAAAAAGGCTTTGGACCAATTTGTCAAC
TROUT 10 -ACACAGAGCTGAAGAAGTACAGCCACGTGAACAAGAAAGGCCCTGGACCAAGTTTGTCAAC
DANIO 3116 AACACGGAACTGAAGAAGTACAGCCACGTGAATAAAAAAGCCTTGGATCAGTTTCTCAAT
PIG 445 ACCATAGAATT-----
HOMO 3008 AACACAGAAATTAAGAAGTACAGCCATGTTAACAAAAAGGCTTTGGATCAGTTTGTAAAT
COW 2917 AACACAGAAATTAAGAAGTATAGCCATGTTAACAAAAAGCCTTAGATCAGTTTGTAAAT
MOUSE 1489 AACACAGAGTTAAAGAAGTACAGCCACGTGAACAAAAAGGCTCTAGATCAGTTTGTGAAT
RAT 3006 AACACAGAGTTGAAGAAGTACAGCCATGTCAACAAGAAAGGCTCTGGACCAAGTTTGTGAAT
5881 5881.....5890.....5900.....5910.....5920.....5930.....

FLY 3033 -----
CELEGANS 3181 GCATCGTCACAAAAGGAAGAGCTCACGAAACGAATGGCCGAACAGAAGAAGAGTGAAGAT
FLOWER 2935 -----TTCACA-----GAACAG-----
SOY 82 -----
FROG 2977 -----
TROUT 69 -----
DANIO 3176 -----
PIG 456 -----
HOMO 3068 -----
COW 2977 -----
MOUSE 1549 -----
RAT 3066 -----
5941 5941.....5950.....5960.....5970.....5980.....5990.....

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FLY          3033  -----GAGCTTCTCCGAG-----
CELEGANS    3241  TCAATCGAGGAGCTTCTCAAAGTGCTCGAAAATCGCAAGTACGAGGCGATTGATTTGACG
FLOWER      2947  -----
SOY         82    -----
FROG       2977  -----TTCTC-----
TROUT      69    -----TTCTC-----
DANIO     3176  -----TTCTC-----
PIG       456  -----
HOMO     3068  -----TTCTC-----
COW      2977  -----TTCTC-----
MOUSE    1549  -----TTCTC-----
RAT      3066  -----TTCTC-----
6001 6001.....6010.....6020.....6030.....6040.....6050.....

FLY          3046  -----CAGAAGGAGAAGCTCT-----ATCGCC--GCAAAGAG-----
CELEGANS    3301  TTTAAGCAGGTCAAGAAGAAGCTTTGAACAAGTTTTCAAGCAACTTGTGCCGCATGGCCGC
FLOWER      2947  -----CGAGAAGAAGCTT---CAAAATCGGCAAGCAGAGCTTGTATGCAGGAGATG
SOY         82    -----
FROG       2982  --AGAACAAAAGGAGAA-----
TROUT      74    --TGAGCAGAAGGAGAA-----
DANIO     3181  --AGAGCAAAAAGAGAA-----
PIG       456  -----
HOMO     3073  --CGAGCAGAAAAGAAA-----
COW      2982  --GGAGCAGAAAAGAAA-----
MOUSE    1554  --TGAGCAGAAGGAAAG-----
RAT      3071  --TGAGCAGAAGGAGAA-----
6061 6061.....6070.....6080.....6090.....6100.....6110.....

FLY          3076  -----
CELEGANS    3361  GGAAAAAT-----GCAAATGAGAGCCCGTGAGCAACGTGACGATGAG-----GAAGGTA
FLOWER      2993  AGAAAAATTAAAGAGCTGATAACAGTTCTGGATCAGCGGAAAGACGAATCTATAGAACGTA
SOY         82    -----
FROG       2997  -----
TROUT      89    -----
DANIO     3196  -----
PIG       456  -----
HOMO     3088  -----
COW      2997  -----
MOUSE    1569  -----
RAT      3086  -----
6121 6121.....6130.....6140.....6150.....6160.....6170.....

FLY          3076  -----GAGCTCGACATC-----
CELEGANS    3410  TCAATTCAGTAGAGCTGTAC-----GAAGGAATCTCTGTACTTGT-----
FLOWER      3053  --CTTTCAAAGGGTTGCACATCACTTCAGGGATGTATTCTCTGAGCTTGTGCAAGATGG
SOY         82    -----
FROG       2997  -----
TROUT      89    -----
DANIO     3196  -----
PIG       456  -----
HOMO     3088  -----
COW      2997  -----
MOUSE    1569  -----
RAT      3086  -----
6181 6181.....6190.....6200.....6210.....6220.....6230.....

FLY          3088  -----GGTGACCA-----GAAGATCCACA
CELEGANS    3450  -----CTCCTTTGTATCA-----GATGATGGAGAT-----
FLOWER      3111  ATATGGTAACCTTATCATTATGAAGAAAAGGATCTTGATAATGATGATGAAGATGATGA
SOY         82    -----ATGATGATGAAGATGA-----
FROG       2997  -----ACTGATCAA-----
TROUT      89    -----GCTGATCAAG-----
DANIO     3196  -----GCTGATCAAG-----
PIG       456  -----
HOMO     3088  -----GTTAATAAAG-----
COW      2997  -----GTTAATAAAG-----
MOUSE    1569  -----GCTGATAAAG-----
RAT      3086  -----ACTGATAAAG-----
6241 6241.....6250.....6260.....6270.....6280.....6290.....

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FLY 3107 TGCT-----AATTCAG-----
 CELEGANS 3475 -----
 FLOWER 3171 TGATGATGATGGAGGTCGTGAAGCTGTTACAGAGGGGAAGGGTTGAG-----AAAT
 SOY 98 -----GGATGGTCCTCGTGAAGCAAATCCAGAGGGGAGAGTAGAA-----AAGT
 FROG 3007 -----CGACAGGAAGAAGTGGACCGGGGCCATAAAT
 TROUT 99 -----CGCCAGGACGAGCTGGAGCGAGGACACAAGT
 DANIO 3206 -----AGGCAGGACGAGCTGGACAGAGGCTACAAAT
 PIG 456 -----
 HOMO 3098 -----CGTCAAGAAGAGTTAGATAGGGGTTACAAAT
 COW 3007 -----CGACAAGAAGAGTTGGACAGGGGGTACAAAT
 MOUSE 1579 -----CGGCAAGAGGAATTGGATAGAGGCTACAAAT
 RAT 3096 -----CGACAGGAAGAATTGGACAGGGGCTACAAAT
 6301 6301.....6310.....6320.....6330.....6340.....6350.....

FLY 3118 TCAT--TGGAGATGCA-----AAAAGTGGAGGCCATTCAATTTACG
 CELEGANS 3475 -----
 FLOWER 3221 ACAT--TGGTG---T-----AAAAGTGAAGG-----
 SOY 142 ACAT--TGGAG---T-----GAAAGTGAAGG-----
 FROG 3038 CCATCATGGAGCTCATGAAC-GTTCTAGAGCTCAGGAAGTACGAGGCCATCCAGCTCAGG
 TROUT 130 CCATCATGGAGCTCATGAAC-GTGCTGGAGCTCAGGAAGTACGAGGCCATCCAGCTCACA
 DANIO 3237 CCATCATGGAGCTCATGAAC-GTCTTGAAGTGCAGCAATACGAGGCCATCCAGCTTACC
 PIG 456 -----
 HOMO 3129 CGATCATGGAAGTGTGAA-TGTACTTGAAGTTCGGAATATGAAGCTATTAGTAACT
 COW 3038 CAATCATGGAAGTGTGAA-TGTACTTGAAGTTCGAAAATATGAAGCTATTAGTAACT
 MOUSE 1610 CAATCATGGAATTGATGAAATGTACTTGAAGTTCGAAAATATGAAGCTATTAGTAACT
 RAT 3127 CAATCATGGAGTTGATG-AATGTACTCGAAGTTCGAAAATATGAAGCTATTAGTAACT
 6361 6361.....6370.....6380.....6390.....6400.....6410.....

FLY 3157 TTCCGACAAGTGGCGCAGAACTTCACCAAGGTGTTAAGAAGCTGGTGCCCATGGGCGCG
 CELEGANS 3475 -----
 FLOWER 3242 -----
 SOY 163 -----
 FROG 3097 TTCAAACAGGTGTCCAAGAATTTTCAGTGAAGTTTTCCAGAAGTTGGTGCCGGGAGGGAAG
 TROUT 189 TTCAAACAGGTGTCTAAGAATTTTCAGTGAAGTTTTCCAGAAGCTGGTTCCAGAGGGCAAG
 DANIO 3296 TTCAAACAGGTGTCCAAGAATTTTCAGCGAGGTGTTTCCAGAAGCTGGTGCCGGCGGTAAA
 PIG 456 -----
 HOMO 3188 TTCAAACAGGTATCTAAGAATTTTCAGTGAAGTATTCCAGAAGTTAGTACCTGGTGCCAAA
 COW 3097 TTCAAACAGGTATCCAAAACTTTAGTGAAGTATTCCAGAAGTTGGTGCCCTGGTGCCAAA
 MOUSE 1670 TTCAAACAGGTATCTAAGAATTTTCAGTGAAGTTTTCCAGAAGTTGGTACCTGGTGCCAAA
 RAT 3186 TTCAAACAGGTATCTAAGAATTTTAGTGAAGTTTTCCAGAAGTTGGTACCTGGGGCAAA
 6421 6421.....6430.....6440.....6450.....6460.....6470.....

FLY 3217 GGCTTTTCATCCTGAAGACCAAG-GACAACGAAGGC-----GACGAAATGG
 CELEGANS 3475 -----TC-----A-----
 FLOWER 3242 -----TCTCGTTC-----ACTGG
 SOY 163 -----TCTCATTT-----ACTGG
 FROG 3157 GCCACGCTGGTGTGATGAAGAAG-GGAGACGTGGAGGGGAGTCAG-TCGCAGGACGAG--GG
 TROUT 249 GCCACCCTGGTGTGATGAAAAAG-G-----
 DANIO 3356 GCCACTCTGGTGTGATGAAGAAG-GGTGACACTGAGGGTGGACAG-TCTCAGGACGAG--GG
 PIG 456 -----
 HOMO 3248 GCTACTTTGGTGTGATGAAGAAA-GGAGATGTGGAGGGCAGTCAG-TCTCAAGATGAA--GG
 COW 3157 GCTACTTTGGTGTGATGAAGAAAAGGAGATGNGAAAGGCAGTCAGGTCTCAGGATGAA--GG
 MOUSE 1730 GCGACTTTGGTGTGATGAAG-AAAGGAGATGTGGAGGGCAGCCA-GTCTCAGGACGAA--GG
 RAT 3246 GCGACCTTGGTGTGATGAAG-AAAGGAGACGTGGAGGGCAGCCA-GTCTCAGGACGAA--GG
 6481 6481.....6490.....6500.....6510.....6520.....6530.....

FLY 3263 AAAAGGAGGTGG-----AAAAGTCCGATGC-----
 CELEGANS 3478 -----G-----AAA-----
 FLOWER 3255 TCAAGG---GG-----AAA-----
 SOY 176 ACAAGG---GG-----AGA-----
 FROG 3213 GGAAGGAAGCGGGGAGAGT-GAGAGGGGGTCCGGGACCCAGAGCAGTGTCCCTTCTGTCTG
 TROUT 271 -----
 DANIO 3412 TGAGG---GCGGAGACAGC-GAGAGGGCATCGTCTTCTCAGAGCAGTGTGCCAGTGTGG
 PIG 456 -----
 HOMO 3304 AGAAGGGAGTGGTGAGA-GTGAGAGGGGTTCTGGCTCACAAAGCAGTGTCCCATCAGTTG
 COW 3215 AGAAGGGAGTGGTGAAAGGTGAGAGGGGCTCTGGACCACAAAGCAGTGTTCATCAGTTG
 MOUSE 1786 AGAAGGGAGTGGCGAGA-GTGAGCGGGGCTCTGGGTACAGAGCAGTGTTCATCAGTTG
 RAT 3302 AGAGGGGAGCGCGAGA-GCAGAGGGGCTCTGGGTACAAAGCAGCGTTCATCAGTTG
 6541 6541.....6550.....6560.....6570.....6580.....6590.....

FLY 3288 -----TTT**CACAGGGATCGGCATT**CGGGTTTCGTT**CACCGGCGTTGAGGCTGAGATGCGTG**
 CELEGANS 3482 -----CACG-----TG
 FLOWER 3266 -----CACA-----AT
 SOY 187 -----CACA-----GT
 FROG 3272 ATCAGTT**CACAGGAGTTGGAATT**CGGGTCTCATT**CACAGGGAAACAAGCGGAGATGAGGG**
 TROUT 271 -----
 DANIO 3468 ACCAGTT**CACTGGAGTGGGCATCAGGGTGT**CATT**CACGGGTAACAGGGAGAGATGAGGG**
 PIG 456 -----
 HOMO 3363 ACCAGTT**TACTGGAGTTGGAATTAGGGTGT**CATTT**TACAGGAAAACAAGGTGAAATGAGAG**
 COW 3275 ACCAGTT**CACTGGAGTTGGAATTAGGGTGT**CATTT**TACAGGAAAACAAGGTGAAATGAGAG**
 MOUSE 1845 ACCAGTT**CACAGGAGTTGGGATCAGGGTGT**CATTT**TACAGGAAAGCAAGGGGAGATGAGAG**
 RAT 3361 ACCAGTT**CACAGGAGTCGGGATCAGGGTAT**CATTT**TACAGGAAAGCAAGGCGAGATGAGAG**
 6601 6601.....6610.....6620.....6630.....6640.....6650.....

FLY 3344 AGATGAACCAGTT**GTCTGGTGGACAGAAGT**CGCTT**GTGCGCCCTGGCCCTCATT**TTTTCTCCA
 CELEGANS 3488 AAATGACACAATT**GTCTGGTGGACAAAAGT**CTCTT**GTGCGGTTGGCTATCATT**TTTTCTCGA
 FLOWER 3272 TAATGAAACAATT**GTCTGGAGGCCAAAAGACT**GT**TGTGCACTCGCGTTAAT**C**TTTGCAA**
 SOY 193 CCATGAAGCAGTT**GTCCGGGGGTCAAAAAC**TGT**TGTGCGCCCTTACACTTAT**C**TTTGCCA**
 FROG 3332 AAATGCAGCAGCT**CTCTGGGGGGCAGAAGT**CTTT**GGTAGCTTTAGCACTTAT**ATTTGCCA
 TROUT 271 -----
 DANIO 3528 AGATGCAGCAGCT**TTCTGGAGGTCAGAAGT**CTCT**GGTGGCTTTGGCTCTCAT**TTTGCCA
 PIG 456 -----
 HOMO 3423 AAATGCAACAGCT**TTTCAGGTGGACAGAAAT**C**TTGGTAGCCCTTGCTCTGAT**TTTTTGCCA
 COW 3335 AAATGCAACAGCT**TTTCAGGTGGACAGAAAT**C**TTGGTAGCTCTTGCTCTGAT**TTTTTGCCA
 MOUSE 1905 AAATGCAGCAGCT**CTCAGGAGGACAGAAAT**CTCT**GGTAGCCCTTGCTCTCAT**TTTGCCA
 RAT 3421 AAATGCAGCAGCT**TTTCAGGAGGGCAGAAGT**CTCT**GGTAGCCCTTGCTCTCAT**TTTGCCA
 6661 6661.....6670.....6680.....6690.....6700.....6710.....

FLY 3404 TCCAAAAGTGC**GATCCAGCTCCCTTCTACCT**ATTT**GATGAGATAGATCAGG**-CGCTGGAT
 CELEGANS 3548 TTCAGAAATGC**GACCCCGCTCCATTCTACTT**GTTT**GACGAAATCGACGCGG**-CTCTCGAT
 FLOWER 3332 TCCAGCGAT**GTGATCCTGCACCATTCTATCT**TTTT**GATGAGATTGATGCAG**-CACTTGAT
 SOY 253 TACAGCGAT**GTGATCCGGCTCCCTTTTATCT**ATTT**GATGAGATTGATGCAG**-CGCTGGAT
 FROG 3392 TCCAGAAAT**GTGACCCCGCCCTTCTACTT**GTTT**GATGA**-AATCGACCAGGCGCTGGAT
 TROUT 271 -----
 DANIO 3588 TCCAGAAAGTGC**GATCCTGCTCCATTCTACTT**GTTT**GATGA**-AATCGACCAGGCTCTGGAC
 PIG 456 -----
 HOMO 3483 TTCAGAAAT**GTGACCCGGCTCCATTTTACTT**GTTT**GATGA**-AATTGACCAGGCTCTGGAT
 COW 3395 TTCAGAAAT**GTGACCCAGCTCCTTTTACTT**GTTT**GATGA**-GATTGACCAGGCTCTGGAT
 MOUSE 1965 TTCAGAAAT**GCACCCCTGCTCCTTTTACTT**GTTT**GATGAGAATCGACCAAGCTTTGGAT**
 RAT 3481 TTCAGAAAGT**GTGACCCCTGCTCCTTTCTACTT**GTTT**GATGAG**-ATCGACCAAGCTTTGGAT
 6721 6721.....6730.....6740.....6750.....6760.....6770.....

FLY 3463 GCAATGCATCGAAAGGCG**GTGGCGAACATGATCCAT**GAGCT**CAGCGACACTGCC**-----
 CELEGANS 3607 GCTCAACACAGAAAAT**CTGTGGCTGACATGAT**TCAAT**CTCTATCGGATCAGGCA**-----
 FLOWER 3391 CCACAGTACCGAACCG**CTGTGGGAACTTGATTCG**T**CGTCTTGCTGATGATTATGGCAGG**
 SOY 312 CCACAGTACCGAACT**GTGTTGGAAATATGAT**TT**TGTCGCTTAGCAGACATAGCAAACT**
 FROG 3451 GCTCAGCACAGGAAGGCG**TGTCAGATATGATCAT**GGAGTTGGC-----TTCCACGCG
 TROUT 271 -----ATGAT**TGTAGAGCTGGC**-----GGGCCATGCC
 DANIO 3647 GCTCAGCATAGAAAAG**CAGCGTCAGACATGATCAT**GGAGCTGGC-----CGGACACGCT
 PIG 456 -----
 HOMO 3542 GCTCAGCACAGAAAGG**CTGTGTGTCAGATATGAT**TATGGAACT**TGC**-----TGTACATGCT
 COW 3454 GCTCAGCACAGAAAGG**CTGTGTGTCAGATATGAT**TATGGAGCT**TGC**-----TGTACATGCT
 MOUSE 2025 GCTCAGCACAGAAAAG**CGTGTGTCAGATATGAT**TATGGAGCT**TAGC**-----CGTGCATGCC
 RAT 3540 GCTCAGCACAGAAAAG**CTGTGTGTCAGATATGAT**TATGGAACT**TAGC**-----TGTACACGCC
 6781 6781.....6790.....6800.....6810.....6820.....6830.....

FLY 3517 CAGTT**CATTACGACAACGTTCCGGCCGGAAT**T**GCTGGAGAACGC**GC**CAAGTTCTACGGC**
 CELEGANS 3661 CAATT**CGTCACTACCACCTTCCGACCGGAGT**T**GCTCGCCACC**GC**CAAAAATTCTACGGA**
 FLOWER 3451 CAGTT**CATCACCAACTTTCCGTCCCGAGCT**T**GTGAGAGTCGCGGATAAGATATATGGA**
 SOY 372 CAATTT**ATCACTACGACTTTCCGCCAGAGCT**AGT**GAAAGTTGCTGATAAGATATATGGA**
 FROG 3505 CAGTT**CATCACCAACTTTCCGGCTGAGCT**GTT**GGAGTCGGCCGACAAGTTTTATGGA**
 TROUT 298 CAGTT**TATCACCACTACTTTAGACCTGAGCT**T**CTGGAGTCAGCCGACAAGTTCTACGGA**
 DANIO 3701 CAGTT**TATCACCACTACTTTAGACCCGAGCT**G**CTGGAGTCGCGCAGCAAGTTCTACGGC**
 PIG 456 -----TGT**CA**GCT**GACTCAAGCAAT**---
 HOMO 3596 CAGTT**TATTACA**ACT**ACTTTTAGGCCTGA**ACT**GCTTGAGTCAGCTGAC**AA**ATTCTATGGT**
 COW 3508 CAAT**TATTACA**ACT**ACTTTTAGGCCTGA**ACT**GCTTGAGTCAGCTGAC**AA**ATTCTATGGT**
 MOUSE 2079 CAGTT**TATTACA**ACT**ACTCTCAGGCCTGA**ACT**GCTTGAGTCAGCTGAC**AA**ATTCTATGGT**
 RAT 3594 CAGTT**TATCACTACCACCTTTTAGGCCTGA**ACT**GCTTGAGTCTGCTGATAAATCCTCCGG**-
 6841 6841.....6850.....6860.....6870.....6880.....6890.....

FLY 3577 GTGCGATTCCGAAATAAGGTGAGTCACATTGATTGTGTGACCAGG-----GAGGAGGCCA
CELEGANS 3721 GTTCGTTTCCGTAAACAAGGTCTCTCACATTGATTCGGTCACTCGT-----GAACAGGCTT
FLOWER 3511 GTATTTTCATAAGAACAGAGTGAGTATGTGAATGTTATCTCAAAG-----GATCAGGCGT
SOY 432 GTAACACATAAAAAACAGGGTCAGCCGTGTTAATGTTGTATCTAAG-----GAAGATGCTC
FROG 3565 GTCAAATTCAGAAACAAGGTGAGTCACATTGATGTGATCA----CAGCG-GAGCAGGCCA
TROUT 358 GTCAAATTCAGAAACAAGGTGAGTCACATTGACGTGATCT----CGGCA-GAGCAGGCCA
DANIO 3761 GTCAAATTCAGAAACAAGGTGAGTCACATCGATGTGATCT----CAGCA-GAGCAGGCCA
PIG 476 -----TCAGGCCTAAAAGTACGTGTAATGAATTGAGCATGTACAGCAA-----
HOMO 3656 GTAAAGTTCAGAAATAAGGTAGTCATATTGATGTGATC----ACAGCA-GAGATGGCCA
COW 3568 GTAAAGTTCAGAAATAAGGTAGTCATATTGATGTGATC----ACAGCA-GAGATGGCCA
MOUSE 2139 GTAAAGTTCAGAAATAAGGTAGTCACATTGATGTGATC----ACAGCA-GAGATGGCCA
RAT 3653 ---GAAGTCAG-AATAAGG-TAGTCACATCGACGTGATC----ACAGCAAAGAGATGGCCA
6901 6901.....6910.....6920.....6930.....6940.....6950.....

FLY 3632 AGGACTTCGTCGAGGACGACAGCACCCACGCCTAGGAAATTGCCCGCCAAAACCTCAT
CELEGANS 3776 ACGATTTTGTGAGGATGACACCACACA-----
FLOWER 3566 TGGACTTCATTGAGAAAGATCAGTCCA-----CGATACC----
SOY 487 TGAATTTATTGAGCATGACCAGACGCA-----CAATGCT----
FROG 3620 AGGACTTTGTGGAAGACGACACGACTCAG-----GCTG----
TROUT 413 AAGACTTTGTGAGGACGACACTACCCATG-----GTTAA--GAA
DANIO 3816 AGGATTTTGTGAGGACGACACCACCTCAG-----GCTAA--GAG
PIG 520 -----
HOMO 3711 AAGACTTTGTAGAAGATGATACCACACATG-----GTTAATTGGA
COW 3623 AAGACTTTGTAGAAGATGATACCACCTCATG-----GTTAA----
MOUSE 2194 AAGATTTTGTAGAAGACGATACCACGATG-----GTTAACTGAA
RAT 3704 AAGACTTTGTAGAAGACGATACCACGATG-----GTTAACTGAA
6961 6961.....6970.....6980.....6990.....7000.....7010.....

FLY 3692 CCCTCAACCACCAC----AACCATCTCTGCCCC-----AATTATTA
CELEGANS 3804 -----TG-----GATA----
FLOWER 3601 -----T-----
SOY 522 -----GCTG-----AATAAGGT
FROG 3654 -----
TROUT 451 TAATCAACTC-----TTCCTCAT---CCACCTCC-----
DANIO 3854 AAAAACACACACCTCTGGCAGTCATTTTTCTCATTTTTCCACCCCATCTCAACTGGTGT
PIG 520 -----
HOMO 3751 AAATAC-----TACCTACTGGTTGGGAGATGTATATAGTAATAT
COW -----
MOUSE 2234 GGATAA-----TGCTTGCTGTCTTGGAAGATGTGTATAATAATGT
RAT 3744 AGATAA-----CGCCTGCCGTCTTGGAAGATGTGTATAGTAATGT
7021 7021.....7030.....7040.....7050.....7060.....7070.....

FLY 3731 GTTTCG-----TAGGCGTACGATTT-----GTTTTCAC---
CELEGANS 3810 -----
FLOWER 3602 -----
SOY 534 GCTTCT-----GA-----ATCAC---
FROG 3654 -----
TROUT 477 -----
DANIO 3914 GTTTCCTTTTTAAAATCCAGTTGGGTCAA-----AAGCTGTTTGTGTTGTTGTTTTTA
PIG 520 ---TTC-----CATAATCA-----TATCTGA
HOMO 3791 GATTCT-----CATACCCAGGAAGTGTAAATTTAAACCTAAATATTTGGCCAATA---
COW -----
MOUSE 2274 GGT--C-----CATACCCAGAAGTGTAAATTTAAACCTAAATATTTGGTTATTATTGA
RAT 3784 GGT--C-----CGTACCTGGGAACGTAAATTTAAACCTAAATATTTGGTTATTATTGA
7081 7081.....7090.....7100.....7110.....7120.....7130.....

FLY 3759 -----ATTCTTTTAA-----TCGT
CELEGANS 3810 -----
FLOWER 3602 -----
SOY 547 -----ATGGTCTGAAC-----TGAA
FROG 3654 -----
TROUT 477 -----
DANIO 3969 TTCTGAGCAGGATTCGCTGAAAAATGGTGGTTTTTACAGTTTTATATTTCTCTCTCTCT
PIG 538 -----CACAGCCTTTCT
HOMO 3841 -----GTTTTTCAGACTTAAAGCATCATAGTCCTTTT
COW -----
MOUSE 2326 -----GTTTTTAGATTTAGAGTA-CACAGTCCCCTT
RAT 3835 -----GTTTTTGATTTAGAATA-CACAGTCCCCTT
7141 7141.....7150.....7160.....7170.....7180.....7190.....

FLY 3774 ATACATATATATATAT-----ATAGTTTTCTTTCTAACGATAC-TTGCTACATTTA
CELEGANS 3810 -----
FLOWER 3602 -----
SOY 562 AT-----TAGTCAACT-----
FROG 3654 -----
TROUT 477 -----
DANIO 4029 ATTGATTTTCTTGTATTTCAAGGATAAAA---CACTGAAATGTTTGTTTG-----
PIG 550 GTGCTG-----
HOMO 3872 ATATTTGTCTTTGTATTT-----TATAAGATACTCTGTAATGTCATGTTTGTACTGATA
COW -----
MOUSE 2356 AACTTTGTCTTTGTATTT-----TATAAGCTCCCCTGTAATGTTACATTTCTACATATA
RAT 3865 AACTTTGTCTTTGTATTT-----TATAAGCTCCCCTGTAATGTTACATTTCTACGTATA
7201 7201.....7210.....7220.....7230.....7240.....7250.....

FLY 3824 ATT-----TTCCTTAACAATGAGAGTT-----AGTTTTTCGGCTAG-----
CELEGANS 3810 -----
FLOWER 3602 -----
SOY 573 -----
FROG 3654 -----
TROUT 477 -----
DANIO 4076 -----TTTGTTTGTTGTTCCGAGGCCA-----ATG
PIG 556 -----
HOMO 3926 GTTTAAGAATTTAATTTTCTGTACAACTTTTTGTAAAATGTTCTGCTCCTATTTTAAATG
COW -----
MOUSE 2410 GCTGAGGAATTTTATTTTCTATGCGGCTTTTTGTAAAGTG--TCCTCCTATTTTAAAT-
RAT 3919 GTCGAGGAATTTTATTTTCTACACGACAAAAAGT-AAGTG--TCCTCCTATTTTAAAT-
7261 7261.....7270.....7280.....7290.....7300.....7310.....

FLY 3859 -----GCCGTGCT-----CGTTGCG-----TGGAACACTTCGAGCCGGC
CELEGANS 3810 -----A-----
FLOWER 3602 -----GA-----
SOY 573 -----C-----TGGGACTCTTCGA-----
FROG 3654 -----
TROUT 477 -----
DANIO 4101 CTT-GAGACTTGCTTCAGCTTG-----AGTTATTTAAAGATGAGAAAGTTAGGGAACCC
PIG 556 -----
HOMO 3986 TTTTGAAACATGCTAAATATCTTTTCTAATTATTTTA-----TCACTTATACTACCT
COW -----
MOUSE 2466 CTTTGAGATATTCTAAATATTC-TTCCCAATTA-----
RAT 3974 CTTT-TGAGATTCTAAATA-----TTCCCAATTA-----
7321 7321.....7330.....7340.....7350.....7360.....7370.....

FLY 3893 -----GAACAAAACCGAGAGTATAGAAACTCCAA
CELEGANS -----
FLOWER -----
SOY -----
FROG 3654 -----
TROUT 477 -----GTAGTGCAC-----
DANIO 4154 ATGTTATAAGCTGAGATGT--TAAAGGGGTAGTCCACACAAAAACCTTAATGTGCTCATT
PIG 556 -----AGCATCT-----
HOMO 4039 TTTTTAT-AGCTTCAATTAAATAATCGGTTTT-----
COW -----
MOUSE 2498 -TTTTAT-AGCTTCTATTAAATAATTGGTTTTGTGACTAACTTAGTGTAATGTGGCCTTT
RAT 4002 -TTTTAT-AGCTTCTATTAAATAATTGGTTTTGTGATACTTAGTGTAATGTGGCCTTT
7381 7381.....7390.....7400.....7410.....7420.....7430.....

FLY 3922 GCCCAGATCAATATGTAATAA-AGCGCATAGA--GAAGTAATTTAAACTATATTT---AA
CELEGANS -----
FLOWER -----
SOY -----
FROG 3654 -----
TROUT 486 -----TGCCTAACTCTGAGC-----
DANIO 4212 G---TTTACTCTTCCCAAGTCATTCCAGACATTGAGTTTCTTT---CTTTTTGGTGAAC
PIG -----
HOMO 4070 -----ATGACTAAAAA-----A
COW -----
MOUSE 2556 GGTCTTTGCAATGGTTAGAAACATTAAATACA-----TATTTTGCAA
RAT 4060 TGTCTTTGTAATTGTTAGAAACATTCGGTGGG-----TATTTGCG--
7441 7441.....7450.....7460.....7470.....7480.....7490.....

FLY	3976	AACGAAAATATGTATTA AAAAGCTTATGC
CELEGANS		-----
FLOWER		-----
SOY		-----
FROG	3654	-----A-----
TROUT	501	-----C-----
DANIO	4266	AAAAAAAAAAAAAAAAAAAAA-----
PIG		-----
HOMO	4082	AAAAAAAAAAAAAAAAA-----
COW		-----
MOUSE	2598	AAAAAAAAAAAAAAAAA-----
RAT	4100	-----ATAAG-----
	7501	7501.....7510.....7520.....