

Supporting Information

Dai et al. 10.1073/pnas.0800693105

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spx_promoter_mel      AATGGGCATACAAAT-AAAACCTAACAAATACAAATG-----AAATGG-AAAAATGTCAA 52
spx_promoter_sim     AATGGACATACCAAT-AAAACCTAACAAAGAGAAATA-----AAATGG-AAAAATGTCAA 52
spx_promoter_sec     AATGGACATACCA-T-AAAACCTAACAAAGAGAA-TA-----AAATG--AAAAATGTCAA 49
spx_promoter_yak     TTTTGGCAAATCGAT-AGAAATTTACAAGACCAATAA-----AAATGA-AAAAATATCAA 55
spx_promoter_ere     AGTGAAAGTGCAGGCGAGAAATTTTAAAAATTTAATAACAATTTGAATGACAAAAAACTTA 60
      *           * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      CACATTTTTCAAGGTTGGGACG-----GTTTTGGGTG-----CTAGAATGCGC 96
spx_promoter_sim     CACATTTTTCAAAAGTGGGACG-----GTTTTGGTTG-----TAAGAATGCGC 96
spx_promoter_sec     CACATTTTTCAAAAGTGGGACG-----GTTTTGGGTG-----TAAGAATGCGC 93
spx_promoter_yak     AACATTTTTCAAAAGTGGGCGTGGCAGTTTTGGGCGGTTATGGGCGTTAGAGTGGC 115
spx_promoter_ere     AACATTTTTGAAAAGTGGGTTTGACAGTTTTGCGCG-----ATTGTGG 106
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      GTGGCAACATCAGAAAACT-----TA 121
spx_promoter_sim     GTGAAAATCAGAGAACT-----AA 121
spx_promoter_sec     GTGAAAAATCAGAGAACT-----AA 118
spx_promoter_yak     GTGGCAACATGAATCAGAACTTGGCGTCTATGTCTCTGGAGTCTGTATGCTTAA 175
spx_promoter_ere     GCAAAATCTTTTTAGGA-AAATT-----AA 130
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      TCTAGGCTCTCGAGTTTTATAGTTCCTGAGATCTCGACGTTACACGGACAGACCGAC- 180
spx_promoter_sim     TCTAGGCTCTCGAGTTTTATAGTTCCTGAGATCTC-----ATACGGACAGATT---- 170
spx_promoter_sec     TCTAGGCTCTCGAGTTTTATAGTTCCTGAGATCTC-----ATACGGACAGATT---- 167
spx_promoter_yak     TCTCAACTTTGTAGCTTTTGTAGTTCCTGAGATCACAGCGTTACACGGACAGACAGACA 235
spx_promoter_ere     TATAAATTTACAAGAC----TAATAATAAAAAATGGAAAA----ATGTTGGCG----- 174
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      -----CGACATGCTCAGATCGACTCGGCTAGTGACCCTGATCAGGAATATTTGT 229
spx_promoter_sim     -----TCATACGGACAGATCGACTCGGCTAGTTACCTGATCAGGAATATTTGT 219
spx_promoter_sec     -----TCATACGGACAGATCGACTCGGCTAGTTACCTGATCAGGAATATTTGT 216
spx_promoter_yak     GACGGACAGCGGACATGGTATATCGACTCGGCTAGTTGCTGATCAGGAATATATAT 295
spx_promoter_ere     -----TGGCAACATCATAATCATTGCGTTCGATATCTGATCTGGAATCTGCAAT 223
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      ATTTTATAGTGTGGAATCGCTTCTCTACAT---GTT----TGCTTGAACAAAT--- 278
spx_promoter_sim     TCTTTATAGTGTGGAATCGCTTCTCTGACAT---GTT----TGTTTGAGCAAAAT--- 268
spx_promoter_sec     TCTTTATAGTGTGGAATCGCTTCTCTGACAT---GAT----TGTTTGAGCAAAAT--- 265
spx_promoter_yak     ACTTTATAGTGTGGAACCTTCTCTGCT---GTTACATCTTTTCAACGAATCTTA 352
spx_promoter_ere     GCCTAATATCAGCTTCTAGCTTCTTTGTTCTTAGATCTCGACATTCATACGAACA-- 281
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      -----TTTATTTGATAATAT--ATTTTGATTGGCTTATCGAATTTAACAATT-- 325
spx_promoter_sim     -----TTTATTTGGTAGTAT--GTTTTGATTGGCTTATCGGATTTTAACAATT-- 315
spx_promoter_sec     -----TTTATTTGGTAATAT--GTTTTGATTGGCTTATCGGATTTTAACAATT-- 312
spx_promoter_yak     GTATACCTTTTACTCTACGAGTAACGGGTATAAATATTGTAGGACACTAAAAACT 412
spx_promoter_ere     -----GACACACTGTGAGTATT-TTTTGAATGGTCAATCGGATTTTAACAATT-- 329
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      ---GACAATTGACTATTCTACCTGCCTTCTAATTTAACACATTTTATCGGA---CA 378
spx_promoter_sim     ---GACAATT-----CTCACCTGCCTTCTAATTTAACACATTTTATCGGA---CA 361
spx_promoter_sec     ---GACAATT-----CTCACCTGTCTTCTAATTTAACACATTTTATCGGA---CA 358
spx_promoter_yak     ATCGAACAGCCGACAAAAATTTAATTTTGAAGTAAACAGTATACATCGGAATTTA 472
spx_promoter_ere     ---GAGGTGTC-----CATCGATGCGAATTTTAAACAAGAAATAACACCGGACCAAC 380
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      ACAGCGTG-CGCT-----TCGTCACAACGTGGACAGCCGCCAGTGA 421
spx_promoter_sim     ACA----- 364
spx_promoter_sec     ACA----- 361
spx_promoter_yak     ACATTAGA-TGCGAAATTTAACAAGAAATTTTAAATACGTAACCTGTTGCCACTGTGA 531
spx_promoter_ere     ACAGCAGACTGTACATACTTCTGGACCTCTTCTACTACTAGACAGCCACTGTGA 440
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      TATCGAACAGCAGCCGTGGAGAAAAGAAATAAACAAGAAATCGAAAAGTTTTTT 481
spx_promoter_sim     -----ATATAAAAAA----- 374
spx_promoter_sec     -----ATATAAAAAA----- 371
spx_promoter_yak     TATCGCACAGCAGCCGTAGGCTCAAAGGAA-ATAAATAGAAAAATCGACATAGTTTTTG 590
spx_promoter_ere     TATCGAACAGTAGCCGTGGACGAAAAGGAA-ATAAATAGAAAAATC----- 486
      * * * * * * * * * * * * * * * * * * * * * * * * * * * *

spx_promoter_mel      TTGTAATATTTTTTGGT-GTAAGTATA-AAGACAAA-ATATTCAAATCTGTAAGCTCG 538
spx_promoter_sim     --ATAAATATTTTTTGGT-GTAGGTAGACAAGATAAATAAATTTAATTTGTAAGCTCG 431

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Fig. SF1. The alignment of the regulatory regions for *spx* among the *Drosophila* species that end at -1 position from transcription start site. (A) The *melanogaster* subgroup sequences. (B) The *Drosophila* genus sequences. D. *melanogaster*, *mel*; D. *simulans*, *sim*; D. *sechellia*, *sec*; D. *yakuba*, *yak*; D. *erecta*, *ere*; D. *ananassae*, *ana*; D. *persimilis*, *per*; D. *willistoni*, *wil*; D. *virilis*, *vir*.

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spx_promoter_sec --ATAAATAATTTTTGGT-GTAGGTAGACAAGATAATTAATAATTTAATTTGTAAGCTTCG 428
spx_promoter_yak GTGTAGGTATTTTTTCATTGTAAGTAT-CAAGACAAG-ATTATTAATCTGTAAGCTTGG 648
spx_promoter_ere -TACATCGATTTTTTATTGTAAGTATG-AAGATATG-ATAATTA----- 528
* * ***** * *** ** * * * * *

spx_promoter_mel ACATTAAGGTGCAAAACCGCATTGCAACGTGAATTCAATTATCCCTAATTAATTTAAG 598
spx_promoter_sim ACATTAAGGTGCAAAACCGCATTGCAATGTGAATTCAATTATCCCTAATTAATTTGAG 491
spx_promoter_sec ACATTAAGGTGCAAAACCGCATTGCAATGTGAATTCAATTATCCCTAATTAATTTGAG 488
spx_promoter_yak ACCATAAAGGTGCAAAACCGCATTGCAACGTGAATTCAATTATCCCTAATTAATTTGAG 708
spx_promoter_ere -----TGCAAAACCGCATTGCAACGTGAATTCAATTATCCCTAATTAATTTGAG 577
*****

spx_promoter_mel TGGTTGTTTACACCAGGGAGTGCCTCAAACCTTCACTTCAATTGATTGCCAGGTTTCAT 658
spx_promoter_sim TGGTTGTTTACGCCAGGGAGTGCCTCAAACCTTCACTTCAATTGATTGCCAGGTTTCAT 551
spx_promoter_sec TGGTTGTTTACGCCAGGGAGTGCCTCAAACCTTCACTTCAATTGATTGCCAGGTTTCAT 548
spx_promoter_yak TGGTTGTTTACTCTAGGGAGTGCCTCAAACCTTCACTTCAATTGCTTGTCCAGGTTTCAT 768
spx_promoter_ere TGGTTGTTTACTCTGGGAGTGCCTCAAACCTTCACTTCAATTGCTTGTCCAGGTTTCAT 637
***** * *****

spx_promoter_mel ATTTCAAATGGGAAGTGTGTTCTGTCATCCAATTGTACGTATACGACGGCCTATTAATA 718
spx_promoter_sim ATTTCAAATGGGAAGTGTGTTCTGTCATCCAATTGTACGTATACGACGGCCTATTAATA 611
spx_promoter_sec ATTTCAAATGGGAAGTGTGTTCTGTCATCCAATTGTACGTATACGACGGCCTATTAATA 608
spx_promoter_yak ATTTCAAATGGGAAGTGTGTTCTGTCATCCAATTGTACATATACG----CCTATTAATA 824
spx_promoter_ere ATTTCAAATGGGAAGTGTGTTCTGTCATCCAATTGTACATATACG----CCTATTAATA 693
*****

spx_promoter_mel TCGAAAACGATTACTTTTCGGAAGTTCGGGGGTTGATTTTCAGAACATATGCCTTTTGA 778
spx_promoter_sim TCGAAAACGATTACTTTTCGGAAGTTCGGGGGTTGATTTTCAGAACATATGCCTTTTGA 671
spx_promoter_sec TCGAAAACGATTACTTTTCGGAAGTTCGGGGGTTGATTTTCGGAAGCATATGCCTTTTGA 668
spx_promoter_yak TCGAAAACGATTACTTTTCGGAAGTTCGGGGGTTGATTTTCAGAGGCATATGCCTTTTGA 884
spx_promoter_ere TCGAAAACGATTACTTTTCGGAAGTTCGGGGGTTGATTTTCAGAACATATGCCTTTTGA 753
*****

spx_promoter_mel CGATACATATTCAGATACTGGGTAGATAAAAAATGGACTAAAAATCCCACTGATGAGTT 838
spx_promoter_sim CGATACATATTCAGATACTGGGTAGATAAAAAATGGACTAAAAATCCCACTGATGAGTT 731
spx_promoter_sec CGATACATATTCAGATACTGGGTAGATAAAAAATGGACTAAAAATCCCACTGATGAGTT 728
spx_promoter_yak CGATACAAATTCAGATA-TGGGTAGATAAAAAATGGACTAAAAATCCCACTGATGAGTT 943
spx_promoter_ere CGATACAAATTCAGATACTGGGTAGATAAAAAATGGACTAAAAATCCCACTGATGAGTT 813
*****

spx_promoter_mel GGCAATAATTCGCTTGAGTGGGTACTGTCAACAGGCAAAATAAGTGTTCTTTTGGGG 898
spx_promoter_sim GGCAATAATTCGCTTGAGTGGGTACTGTCAACAGGCAAAATAAGTGTTCTTTTGGGG 791
spx_promoter_sec GGCAATAATTCGCTTGAGTGGGTACTGTCAACAGGCAAAATAAGTGTTCTTTTGGGG 788
spx_promoter_yak GGCAATAATTCGCTTGAGTGGGTACTGTCAACAGGCAAAATAAGTGTTCTTTTGGGG 1003
spx_promoter_ere GGCAATAATTCGCTTGAGTGGGTACTGTCAACAGGCAAAATAAGTGTTCTTTTGGGG 873
*****

spx_promoter_mel GCGGGCAAACTTTACAACACAGATTGCCGCTGCTGGTACCGGTGCCGTGATGGCCTTTT 958
spx_promoter_sim GCGGGCAAAC-TTACAACACAGATTGCCGCTGCTGGTACCGGTGCCAGTGATGGCCTTTT 850
spx_promoter_sec GCGGGCAAACTTTACAACACAGATTGCCGCTGCTGGTACCGGTGCCAGTGATGGCCTTTT 848
spx_promoter_yak GCGGGCAAACTTTACAACACAGATTGCCGCTGCTGGTACCGGTGCCAGTGATGGCCTTTT 1063
spx_promoter_ere GCGGGCAAACTTTACAACACAGATTGCCGCTGCTGGTACCGGTGCCAGTGATGGCCTTTT 933
*****

spx_promoter_mel GTTTACACGTA AAAACATCATGCATATTTAATGGGTTAAATTGCTAGACGATTAACATTT 1018
spx_promoter_sim GTTTACACGTA AAAACATCATGCATATTTAATGGGTTAAATTGCTAGACGATTAACATTT 910
spx_promoter_sec GTTTACACGTA AAAACATCATGCATATTTAATGGGTTAAATTGCTAGACGATTAACATTT 908
spx_promoter_yak GTTTACACGTA AAAACATCATGCATATTTAATGGGTTAAATTGCTAGACGATTAACATTT 1123
spx_promoter_ere GTTTACACGTA AAAACATCATGCATATTTAATGGGTTAAATTGCTAGACGATTAACATTT 993
*****

spx_promoter_mel GAAAATGAAATGTGCGGATAATTGAGTTTACCTTGACTAATTAATTTTGC-TTTTGATACA 1077
spx_promoter_sim GAAAATGAAATGTGCGGATAATTGAGTTTACCTTGACTAATTAATTTTGC-TTTTGATACA 969
spx_promoter_sec GAAAATGAAATGTGCGGATAATTGAGTTTACCTTGACTAATTAATTTTGC-TTTTGATACA 967
spx_promoter_yak GAAAATGAAATGTGCGGATAATTGAGTTTACCTTGACTAATTAATTTTGC-TTTTGAGGCT 1183
spx_promoter_ere GAAAATGAAATGTGCGGATAATTGAGTTTACCTTGACTAATTAATTTTGC-TTTTGAGGCT 1052
*****

spx_promoter_mel AACGGCTTGATCCGTGGAACAGTGAATATATAT 1112
spx_promoter_sim AACCGCTTGATCCGTAGAAACAGTAAATTTA--- 1001
spx_promoter_sec AACCGCTTGATCCGTAGAAACAGTAA-TTTA--- 998
spx_promoter_yak ATGGCTTGATCCGTGGAATAATTAACCTTACAT 1218

spx_promoter_ere AACGGCTTGATCCGT-GAAACAGTAAATGTA--- 1083
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Fig. SF1. Continued.

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spx_promoter_mel -----AATGGG 6
spx_promoter_sim -----AATGGA 6
spx_promoter_sec -----AATGGA 6
spx_promoter_yak -----TTTTGG 6
spx_promoter_ere AGTGAAAGTGCAGGCGAGAAATTTTAAATTTAATACAATTTGAATGACAAAAAACTTA 60
spx_promoter_ana -----ATAACATGTGTGGAAAGTCCCAACCTT 27
spx_promoter_per -----TTTTCGGGAGCAAAAGTAGGAGT 22
spx_promoter_wil -----CAAGGGTATGAAAAAAAATGTT 23
spx_promoter_vir -----

spx_promoter_mel CATACAAATAAACTAAACAATACAAATG---AAATGGAAAAATGTCAACACATTTTTTCA 63
spx_promoter_sim CATACCAATAAACTTAACAAGAGAAATA---AAATGGAAAAATGTCAACACATTTTTTCA 63
spx_promoter_sec CATACCA-TAAAACTTAACAAGAGAA-TA---AAATG-AAAAAATGTCAACACATTTTTTCA 60
spx_promoter_yak CAAATCGATAGAAATTTACAAGACCAATATAAAAAATGAAAAAATCAAAACATTTTTTCA 66
spx_promoter_ere AACATTTTTGAAAGTGTGGGTTTGACAGTTTTGCGCGATTTGTGGGCAAAATCTTTTTA 120
spx_promoter_ana CTAACCTAAAAACCAAAAGTTATGACATTTCCGATCAATCAGTTATATGGCAGCTATAG 87
spx_promoter_per -----
spx_promoter_wil GGCACAAATATGAAATAAACTCGATCACTGTACATACATACTACACAGGTCTACATATTG 82
spx_promoter_vir TCTTCATACAACAACCTTAA-----TTTTGACCGATCGTCCGATGGCAGCTATAT 74

spx_promoter_mel AGGGTGTGGACG----GTTTTGGGTG-----CTAGAATGC--GCGTGGCAA 103
spx_promoter_sim AAAGTGTGGACG----GTTTTGGGTG-----TAAGAATGC--GCGTGTAAA 103
spx_promoter_sec AAAGTGTGGACG----GTTTTGGGTG-----TAAGAATGC--GCGTGTAAA 100
spx_promoter_yak AAAGTGTGGCGTGGCAGTTTTGGGCGGTTTATGGG--CGTTAGAGTGG--GCGTGGCAA 122
spx_promoter_ere GGAATAATATAAATTTACAAGACTAATAATAAAAAATGAAAAATGTTGGCGTGGCAA 180
spx_promoter_ana GTTATAGTGACCGATCCCGGCGTCCGTAATAAAAAATGAAAAATGTTGGCGTGGCAA 147
spx_promoter_per -----
spx_promoter_wil ATTTTGGTGGATCAGATTTTCGGACGGCTAGATCGA---TCAGAATATTTATACATACC 139
spx_promoter_vir GATACAGTGGTCCGATCCAGCTGTTTTG-----ATATGCTG-CGTG-CAA 118

spx_promoter_mel CATCAGAAAAAACT-----TATCTAGGC 128
spx_promoter_sim TATCAGAGAACAACCT-----AATCTAGGC 128
spx_promoter_sec AATCAGAGAACAACCT-----AATCTAGGC 125
spx_promoter_yak CATGAATCGAACAACCTGCGCTGCTATGTCTCTGGAGTCTGTATGCTTAATCTCAAC 182
spx_promoter_ere CATCATAATCATTGCGTTGCGTATATCTAT---CTGGAATCTGCATGCCTAATATCAGC 236
spx_promoter_ana CATCATAATCATTGCGTTGCGTATAT-----GAAGGGTGTGTGCAAAAGTTCAAC 197
spx_promoter_per -----
spx_promoter_wil CTATGGTGCATGACATACAATCAATAATAT-----GTGCACAATTCAGAATGTGATC 194
spx_promoter_vir CA-----GAAA-----GAGGGACTTCTGCAAA-TTTTTATT 147

spx_promoter_mel TCTCGAGTTTTTA---TAGTTCCTGAGATCTCGACGTTACATCGGACAGACCGAC----- 180
spx_promoter_sim TCTCGAGTTTTTA---TAGTTCCTGAGATCTC-----ATACGGACAGATT----- 170
spx_promoter_sec TCTCGAGTTTTTA---TAGTTCCTGAGATCTC-----ATACGGACAGATT----- 167
spx_promoter_yak TTTGTAGCTTTTG---TAGTTCCTGAGATCACAGCGTTACATCGGACGGACAGACAGACG 239
spx_promoter_ere TTTCTAGCTTCT---TTGGTTCCTGAGATCTCG---ACATTCATACGAACA----- 281
spx_promoter_ana TCGATAGTCCAAAACCTGAGAGACTAGTTTGCCT---AGAAACCGACAGACG----- 246
spx_promoter_per ---CTACGACTAG-GTGTGTTTTAAATCCATA---TATAT---GCAAGCT----- 40
spx_promoter_wil GATCGTCCAACAAA-GTAAATTTATATCCTTAATTTGCATTAAGATAAAAC----- 245
spx_promoter_vir AAGATAGTCTAAAAACCTGAGAGACTAGTCCCAT---AGAAACAGACAGACG----- 196
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spx_promoter_mel -----CGCATGCTCAGATCGACTCGGCTAGTGACCTGATCAGGAATATTTGTATTT 233
spx_promoter_sim -----TCATACGGACAGATCGACTCGGCTAGTTACCCTGATCAGGAATATTTGTCTT 223
spx_promoter_sec -----TCATACGGACAGATCGACTCGGCTAGTTACCCTGATCAGGAATATTTGTCTT 220
spx_promoter_yak GACAGACGGACATGGTATATCGACTCGGCTATTGGTCTGATCAAGAAATATATATACTT 299
spx_promoter_ere -----GACACACTGTGAGTATTTTTGAATGGGTC--AATC--GGATTTTAAACAATT 329
spx_promoter_ana -----GACATGCTCATATCAACTCAGGAGGTGATCCTGATCAAGAAATATATTTACTT 298
spx_promoter_per -----ATGCTCTTGTCCATAGTCAAGAAACAA--GTCAAAATATAACCTGAAATAA 89
spx_promoter_wil -----ATTTGTTTTAAGAAATTAACAAGTTAATTATTAATGAATGCATTACATATA 296
spx_promoter_vir -----GACATAGCTATATCGAGTCCGCTGTTGATCCTGATCAAGAAATATATACTT 248
* * * *

spx_promoter_mel TATAGTGTCCGAATCGCTTCTTCTACATGTT----TGCTTGAACAAAT----- 278
spx_promoter_sim TATAGTGTCCGAATCGCTTCTTCTGACATGTT----TGTTTGAGCAAAAT----- 268
spx_promoter_sec TATAGTGTCCGAATCGCTTCTTCTGACATGAT----TGTTTGAGCAAAAT----- 265
spx_promoter_yak TATATGGTCCGAAACCTTCTTCTGCTGTTACATACTTTTCAACGAATCTAGTATACC 359
spx_promoter_ere GAGGTGTCATCGATCGAAATTTAAACAAGAAAGATAACCAACCGG-ACA----- 377
spx_promoter_ana TATAGGGTCCGAGATGTCTCTTCACTGCGTTGCACACTTTTGACCAAA----- 347

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Fig. SF1. Continued.

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spx_promoter_per AATTAACCTCTAAAATAAACTTAATG-GTTGCTCTAACTGTTCTA----- 137
spx_promoter_wil TATGTATGTTTCAATACATATGACTG-GTTAAT--TGATGAGACAAA----- 342
spx_promoter_vir TATGGGTTCCGAGATGTCTCCTTCTATGCGTTACACATTTACGACCTG----- 297
* *

spx_promoter_mel --TTTATTTTGATAATAT--ATTTTGATTGGCTTATCGAATTTTAACAATT-----GAC 328
spx_promoter_sim --TTTATTTTGAGTAT--GTTTTGATTGGCTTATCGAATTTTAACAATT-----GAC 318
spx_promoter_sec --TTTATTTTGATAATAT--GTTTTGATTGGCTTATCGAATTTTAACAATT-----GAC 315
spx_promoter_yak CTTTACTCTACGAGTAACGGGTATAATAATATTGAGGACATAAAAACTATCGAAC 419
spx_promoter_ere -----ACCACAGCAGACT---GTCACATACTCTTGGACCTCT-----TC-----GTC 418
spx_promoter_ana -----ATTATAATACCCT---CTGCAAGGGTATAAAAAATACT-----TC-----CCC 388
spx_promoter_per -----GTATGTAACATCCTGATCCCATAACACTTTGCCAATTAA-----AAT 181
spx_promoter_wil -----GTGGTGTAGAGGCGAAGGCGATGGCGTAGGCGGAGGTGCC-----AAC 386
spx_promoter_vir -----ATTATAATACCCT---CTGCAAGGTATAATAACGGGC----- 332
* *

spx_promoter_mel AATTGACTATTCTCACCTGCCTTCTAATTTAACACATTTTTATCGGA---CAACAGCGT 385
spx_promoter_sim AATT-----CTCACCTGCCTTCTAATTTAACACATTTTTATCGGA---CAACA--- 364
spx_promoter_sec AATT-----CTCACCTGTCTTCTAATTTAACACATTTTTATCGGA---CAACA--- 361
spx_promoter_yak AAGCCGACAAAAATTTAATTTTGCAAAGTTAAACCAGTTACATCGGAATTTAACATTAG 479
spx_promoter_ere ACTA---CGTAGACAGCCTGTGATATCGA-ACAGTAGCCGCTCGGA---CGAAAA--- 467
spx_promoter_ana AAT---CACTGCAGCCAATTTTCATTCCCAATATATTCCGCAAAA---TAAAAAT--- 437
spx_promoter_per AGTA---ACATCCACACATGTGCTATACAAATTTCAATTTATCTCCAAT----- 225
spx_promoter_wil AGC-----CACTGGCTCTACTGTTATACCAATGCAATTACCTTAAAT----- 428
spx_promoter_vir AGT-----TGTGCGATTGTTTGTGGCATTACAAAAATTTAGTCCAA----- 375
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spx_promoter_mel GCGCT-----TCGCACAACGTGGACAGCCGTCGCGAGTGATATCGAAC 429
spx_promoter_sim -----
spx_promoter_sec -----
spx_promoter_yak ATGCGAAATTTTAAACAAGAAATTTTAAATACGTAACCTGTTGCCACTGTGATATCGCAC 539
spx_promoter_ere -----
spx_promoter_ana -----
spx_promoter_per -----
spx_promoter_wil -----
spx_promoter_vir -----

spx_promoter_mel AGCAGCCGTCGGAGAAAAGGAAATAAATACAAGAAATCGCAAAAGTTTTTTTTGTAAT 489
spx_promoter_sim -----ATATAAAAAA-----ATAAAT 380
spx_promoter_sec -----ATATAAAAAA-----ATAAAT 377
spx_promoter_yak AGCAGCCGTAGGCTCAAAGGGAA-ATAAATAGAAAAATCGACATAGTTTTTGTGTAGGT 598
spx_promoter_ere -----GGAAATAAATAGAAAAATCT-----ACATCG 493
spx_promoter_ana -----AGTTCAATTTAGTGCAGCCA-----AAATGT 463
spx_promoter_per -----TAATTTGAGTG----- 236
spx_promoter_wil -----TAATTTGAGTG----- 439
spx_promoter_vir -----ATTTTAGGACAACC----- 389

spx_promoter_mel ATTTTTTGGT-GTAAGTATA-AAGACAAA----ATATTCAAATCTGTAAGCTTCGACAT 542
spx_promoter_sim ATTTTTTGGT-GTAGGTAGACAAGATAAATT---AAAATTTAATTTGTAAGCTTCGACAT 435
spx_promoter_sec AATTTTTGGT-GTAGGTAGACAAGATAAATT---AAAATTTAATTTGTAAGCTTCGACAT 432
spx_promoter_yak ATTTTTTCATTGTAAGTATC-AAGACAAG----ATTATTAATCTGTAAGCTTCGACAT 652
spx_promoter_ere ATTTTTTATTGTAAGTATGAAGATAT-----GATAATTATGCAAAAC--CGCATT 541
spx_promoter_ana TGTTTTACATACAGCATTGGCAAAGAAAAAATATACATGCAGCGGCAAAATTTCTTGT 523
spx_promoter_per CTTTGTATATACGAGGCG-----TGGGCGTGCCT---CACA-- 269
spx_promoter_wil CTTTGTATATAGGCGGC-----TGGCGTGCAC---TGTAGA 476
spx_promoter_vir TGTT---ATAAAGTCTGGCAAG-----TTTTGGCGGCAA---CACGTT 429
** * *

spx_promoter_mel TAAAAGGTGCAAACCGCATTGCAACGTGAATTC AATT-----ATCCCTAATTAATTTAA 597
spx_promoter_sim TAAAAGGTGCAAACCGCATTGCAATGTGAATTC AATT-----ATCCCTAATTAATTTGA 490
spx_promoter_sec TAAAAGGTGCAAACCGCATTGCAATGTGAATTC AATT-----ATCCCTAATTAATTTGA 487
spx_promoter_yak TAAAAGGTGCAAACCGCATTGCAACGTGAATTC AATT-----ATCCCTAATTAATTTGA 707
spx_promoter_ere TGCAACGTGAATTC AAT---TATCCCT-----AATTAATTTGA 576
spx_promoter_ana TTAATTAATAAATAAATGTGACCTCTTGGATTTGGCTTTGACATACGGAATTAATTTA 583
spx_promoter_per -CTAACCTTGTGTGTC--CATTGAGTGA-----GCTCTCA 303
spx_promoter_wil TTGTACACAGGCGCTCTGTTGCTCGCCG-----GATCTCA 513
spx_promoter_vir TGCAATGCCAATGCAAT---TACCT-----TAAATTC A 459
* *

spx_promoter_mel GTGGTGTTTACACAGGAGTGCCTCAAACCT---TTCACCTCAATTGAT-----TGT 647

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Fig. S1. Continued.

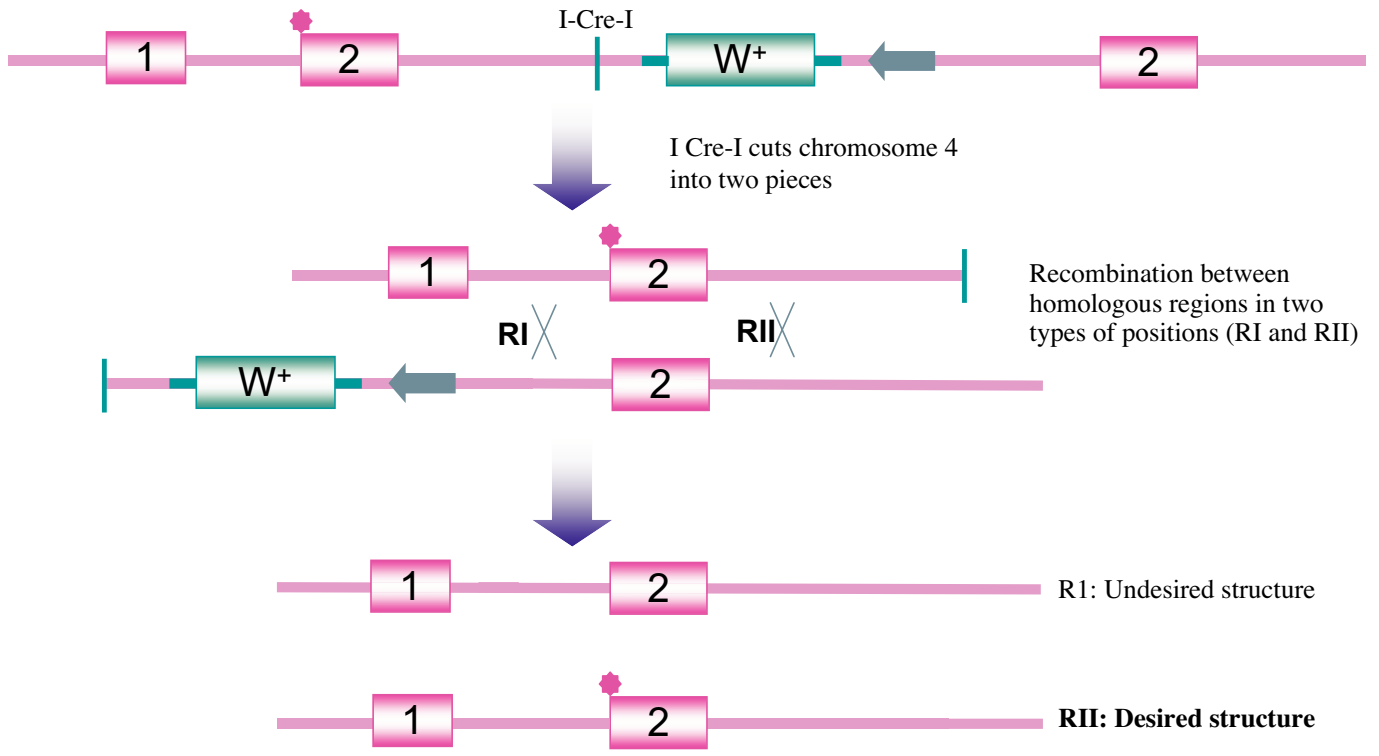


Fig. S2. Continued.