

## Supplementary Materials

**Figure S1.** Five remaining EST-SSRs mutated in the repeat motif in *Frankliniella occidentalis*.

**WFT24 Repeat motif: AC**

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a-208 GACTTAAACTTACTGGTAACACACACACACA-----CTGACACACTTGTGTCCGCGAGGGCCACAGCGACCTT

GT303793 GACTTAAACTTACTGGTAACACACACACACATACACACTGACACACTTGTGTCCGCGAGGGCCACAGCGACCTT

b-214 GACTTAAACTTACTGGTAACACACACACACATACACACTGACACACTTGTGTCCGCGAGGGCCACAGCGACCTT

1.....10.....20.....30.....40.....50.....60.....70.....

WFT28 Repeat motif: TA

a-93 GTAAATAAATCAGTGGAGGGTATGTATATATATATA--AAAGATCATTTAAACCTGAACTGATATCACA  
 b-95 GTAAATAAATCAGTGGAGGGTATGTATATATATATATAAAAGATCATTTAAACCTGAACTGATATCACA  
 GT303349 GTAAATAAATCAGTGGAGGGTATGTATATATATATA--AAAGATCATTTAAACCTGAACTGATATCACA  
 1.....10.....20.....30.....40.....50.....60

**WFT64**      Repeat motif: GGA

a-244 AGTTACAAAATCGACAGGAGGAGGAGGAGGA-----TGTGATAACTCAGTGACTGTGAAAACGAGCTACCAACGCTAGTGA  
 b-247 AGTTACAAAATCGACAGGAGGAGGAGGAGGAGGA-----TGTGATAACTCAGTGACTGTGAAAACGAGCTACCAACGCTAGTGA  
 c-250 AGTTACAAAATCGACAGGAGGAGGAGGAGGAGGAGGAGTGTGATAACTCAGTGACTGTGAAAACGAGCTACCAACGCTAGTGA  
 GT311293 AGTTACAAAATCGACAGGAGGAGGAGGAGGAGGA-----TGTGATAACTCAGTGACTGTGAAAACGAGCTACCAACGCTAGTGA  
 0.....130.....140.....150.....160.....170.....180.....190.....200

WFT98 Repeat motif: AC

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d-151 CTGTTTCATGGTCACTTTGGCCCAACCAGACACACACACATA--CACATAAACAAATAGTAAAGAAAATGCAATG

e-153 CTGTTTCATGGTCACTTTGGCCCAACCAGACACACACACACATAACACATAAACAAATAGTAAAGAAAATGCAATG

b-147 CTGTTTCATGGTCACTTTGGCCCAACCAGACACACACA-----CACACAAACAAATAGTAAAGAAAATGCAATG

c-149 CTGTTTCATGGTCACTTTGGCCCAACCAGACACACACATA-----CACATAAACAAATAGTAAAGAAAATGCAATG

a-145 CTGTTTCATGGTCACTTTGGCCCAACCAGACACACACA-----CATAAACAAATAGTAAAGAAAATGCAATG

GT299180 CTGTTTCATGGTCACTTTGGCCCAACCAGACACACACA-----CATAAACAAATAGTAAAGAAAATGCAATG

1.....10.....20.....30.....40.....50.....60.....70.....

**WFT25 Repeat motif: GA**

[illegible]

**A) WFT51 Repeat motif: AC**

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e-305  
a-297  
d-303  
b-299  
c-300  
GT300133

0.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140

**WFT108 Repeat motif: AT**

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GT300460  
a-135  
b-137  
c-139  
d-140

0.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130

**B) WFT66 Repeat motif: ACT**

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b-134  
a-132  
GT305093  
c-135

.....50.....60.....70.....80.....90.....100.....110.....120

**WFT87 Repeat motif: TG**

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g-277  
b-268  
e-272  
a-264  
f-274  
c-269  
GT303951

1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110

**WFT139 Repeat motif: GA**

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b-142  
a-138  
GT301579

1.....10.....20.....30.....40.....50.....60.....70

**WFT141 Repeat motif: AC**

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f-183  
b-176  
c-177  
GT301355  
a-174  
d-180  
e-182

0.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150

**WFT144 Repeat motif: GT**

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i-102  
h-101  
d-97  
f-99  
m-126  
n-130  
j-106  
e-98  
k-108  
g-100  
o-137  
l-110  
c-96  
b-95  
a-94  
GT301315

30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150