```
Drome-WBT      MSSG--TFVDRIDPFAKRSLKKKGKKSQGSSRYRNSQDVELQQLPPLKADCSSLEQEELF
Tal-WBT        MSAGSGNFVDRIDPFAKRSLKKKPKRSQGSSRYRTANDVDLQPLPLLK-DVPGGEQEDLF
Trica-PPIIA    MSTT--AFVDRIDPFAKRSLKKKTKKSQGSSRYRNSQDVELQPLPLLK-DVPASEQEELF
Bommo-PPIIA    MSSG--TFVDRIDPFAKRSLKKKTKKSQGSSRYRNTQDVELQALPLLK-DVPSSEQEELF
               **:     ***************  *:******** .::**:**  ** **  *  ..  ***:**

Drome-WBT      IRKLRQCCVSFDFMDPVTDLKGKEIKRAALNDLSTYITHGRGVLTEPVYPEIIRMISCNL
Tal-WBT        LRKLRQCCVGFDFLDPVADLKGKETKRSTLNELVDYITAGRGVLTEPVYPEIIAMIACNL
Trica-PPIIA    IRKLRQCCVPFDFMDPVADLKGKEVKRCTLNELVDYITGGRGVLTEPVYPEIIKMISANL
Bommo-PPIIA    IRKLRQCCVAFDFMDPVADLKGKEIKRATLNELVEYIHGGRGVLTEPVYPEIIKMISANL
               :******** ***:***:****** **.:**:*   **  **************  **:.**

Drome-WBT      FRTLPPSENPDFDPEEDDPTLEASWPHLQLVYEVFLRFLESQDFQATIGKRVIDQKFVLQ
Tal-WBT        FRTLPPSDNPDFDPEEDDPTLEASWPHLQLVYEFFLRFLESPDFQPAIGKKVIDQKFVLQ
Trica-PPIIA    FRTLPPSENPDFDPEEDDPTLEASWPHLQLVYEFFLRFLESSDFQPAIGKRVIDQKFVLQ
Bommo-PPIIA    FRTLPPSENPDFDPEEDDPTLEASWPHLQLVYEFFLRFLESTDFQPTIGKKVIDQKFVLQ
               *******:*******************.******* ***.:***:*********

Drome-WBT      LLELFDSEDPRERDFLKTVLHRIYGKFLGLRAFIRKQINNIFLRFIYETEHFNGVGELLE
Tal-WBT        LLELFDSEDPRERDFLKTVLHRIYGKFLGLRAFIRKQINNIFLRFIYETEHFNGVGELLE
Trica-PPIIA    LLELFDSEDPRERDFLKTVLHRIYGKFLGLRAFIRKQINNIFLRFVYETEHFNGVGELLE
Bommo-PPIIA    LLDLFDSEDPRERDFLKTVLHRIYGKFLGLRAFIRKQINNIFLRFVYETEHFNGVGELLE
               **:******************************************:**************

Drome-WBT      ILGSIINGFALPLKAEHKQFLVKVLLPLHKVKCLSLYHAQLAYCIVQFLEKDPFLTEPVV
Tal-WBT        ILGSIINGFALPLKAEHKQFLIKVLIPLHKAKCLSLYHAQLAYCVVQFLEKDPTLTEPVI
Trica-PPIIA    ILGSIINGFALPLKAEHKQFLVKVLIPLHKVKCLSLYHAQLAYCVVQFLEKDPTLTEPVV
Bommo-PPIIA    ILGSIINGFALPLKSEHKQFLVKVLLPLHKVKCLSLYHAQLAYCVVQFLEKDATLTEPVV
               **************:******:****:***.**************.*******.  *****:

Drome-WBT      RGLLKFWPKTCSQKEVMFLGEIEEILDVIDPPQFVKIQEPLFRQIAKCVSSPHFQVAERA
Tal-WBT        KGLLKIWPKTCSQKEVMFLSEIEEILDVIEPNQFGKVQEPLFKQISKCVSSPHFQVAERA
Trica-PPIIA    RGLLKYWPKTCSQKEVMFLGEIEEVLDVIEPSQFTRIQEPLFRQIAKCVSSPHFQVAERA
Bommo-PPIIA    RGLLKFWPKTCSQKEVMFLGEIEEILDVIEPAQFAKIQEPLFRQIAKCVSSPHFQVAERA
               :**** *************.****:****:****:* **  ::*****:**:**************

Drome-WBT      LYLWNNEYAMSLIEENNAVIMPIMFPALYRISKEHWNQTIVALVYNVLKTFMEMNSKLFD
Tal-WBT        LYFWNNEYIMSLIEENSNVILPIMFPALYRISKEHWNQTIVALVYNVLKTFMEMNSKLFD
Trica-PPIIA    LYFWNNEYIMSLMEENNHVIMPIMFPALYRISKEHWNQTIVALVYNVLKTFMEMNSKLFD
Bommo-PPIIA    LYFWNNEYIMSLMEENNHVIMPIMFPALYRISKEHWNQTIVALVYNVLKTFMEMNSKLFD
               **:***** ***:***.  **:*********************************************

Drome-WBT      ELTSSYKAERQKEKKRERDREELWKKLHELESNRSSGRTAGGSATTSNSAASAASTSLQP
Tal-WBT        ELTASYKSERQREKKRDREREELWKKLQALELNRTQ-------PKE-------------
Trica-PPIIA    ELTVSYKAERQKEKKREKERDELWKKLAELELNHNKNLPAQNNSPPSKK-----------
Bommo-PPIIA    ELTASYKAERQKEKKREKERDELWKRLGELEISHKR---QQHAAPLAK-----------
               *** ***.***:***:****:::*:*****:*   **  .:.            .

Drome-WBT      PSSAGLNSHQQQSNSGSSGSLSSGGAGGDNNPATTNAKIKQDKADN
Tal-WBT        ----------------------------------------------
Trica-PPIIA    ----------------------------------------------
Bommo-PPIIA    ----------------------------------------------
```

Figure S12. Putative *Talitrus saltator* WIDERBORST (WBT) protein

Alignment of *Drosophila melanogaster* WBT (Drome-WBT; Accession No. AAF56720) with the *T. saltator* WBT (Tal-WBT) deduced from the Trinity *de novo* transcriptome assembly, together with the top two tblastn species homologue sequences *Tribolium castaneum* PPIIA (Trica-PPIIA; Accession No. XM_008197190) and *Bombyx mori* PPIIA (Bommo-PPIIA; Accession No. XM_004924466). '*' indicates identical amino acid residues in the two

proteins, '.' and ':' indicate similar amino acid residues between the two proteins. In this figure a SMART identified B56 domain is highlighted in yellow.