

Supporting Information for

Analysis of *Sogatella furcifera* proteome that interact with P10 protein of *Southern rice black-streaked dwarf virus*

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Supplemental Table-S1: Complete nucleotide sequence for each gene

Name	Complete nucleotide sequence
<p>Vesicle-associated membrane protein 7</p> <p>5' untranslated region [32 bp]</p> <p>CDS (33 bp-683 bp) [651 bp]</p> <p>3' untranslated region [693 bp]</p> <p>Poly (A) tail [29 bp]</p> <p>Total [1405 bp]</p>	<p>atctcacttccattgattaatcgaataaaaatgcttatcctatacagtgtagtgcaagagggaccacgggtctggcaaaattgcaacatgcgctggaattt tccgaggtgacagaacaatcctggcgaaaattggccagaaaacaggaggaagactctctcacagtagctatttattccattacatgatgaggacag aattgtttacatgtgtattgcggatgatgagttgaacgaccaagagcgttttatacttgaatgaaataaaaaagaggtccggtcaacatattggcagcagag ctgacacggccattgcttatgccatgaactcagagttggcctatfftaggaaatgaaatgaaatactattcagaatcgaaggatattgacacaattcacga gtacatggcgaattggatgaattgaaagataatggttcacaatattgataacattgctatgagagatgaacgcctcgaattgctggtgataaaacagaaa atctaacagccagctctgtcacattccgagcaactagtagaaattfacagcgactctctctggaaaaatgaaactctatatgataatctcagctattgttt ggtaataattttcatcttagctatgtctgtggatcgactttgtccagtgtgaaagactacagagtaacaatcacctgtacgggttaattataatccgatga ttcttcagtaaagagtcttctgtgatattgcaatgataaatttatactattcttaagtagcatgtaaacataagctacggfactgtatttttatttattccttat ttcacgggtcaattaatcaccagaaattttgaaataccaatcatattcttaattattatccataaacaatggtaatgtgactgtatccactgtattaaataat agattgcaataaattcaattaagattttactgcagtttgagtaatacaaaatagatccgtttatattagttgtttatatttaccagattgtttattgtcagag aagtgaacattgtattgcataaggaatgtatgatagatacctatgaagatattttgaaattattcttttctgataaatattatgtcataaacaagggaat gtaaatgtattgtaatccactgttttagatcatagattgtaataaattctattgaagtacggtttttagattgcagtttcagtaatacaaaaatagaaccgtttttatt agttgcataaattgaaataatatttctataaaaatattgtttattatcggagaattgaacaatttttgcataatgaaataaaaaaaaaaaaaaaaaaaaa aaaaaaaa</p>
<p>Vesicle transport V-SNARE protein Vtila</p> <p>5' untranslated region [54 bp]</p> <p>CDS (55 bp-723 bp) [669 bp]</p> <p>3' untranslated region [952 bp]</p> <p>Poly (A) tail [30 bp]</p> <p>Total [1705 bp]</p>	<p>aatgaaaaattattaataagttcaactaatttagtagcctaaacattagattatggctgcttaattgatgtttatgagcagcaaatatgcagtcacacagcag atgttactcaagattggaagattatcatctcttctggaggagaacgacgtcatgttattcggattggataagctgtttgatgaagccaaagagcttatgg aacaatgggccttgaagttcacgagttgaaatcagcagatcaatcaaaacttaagaacagaattgaaagtataagcagaactgaaagactagaaca agaattactaatgctaaaaagaatatcaactcaaaaatggctacagcgataggatagaactgtatagcgaagataagcgtcaatgaggaacagaag caaaggctttggacaatgctgaaatggttgagcgcactggcaagaaattgactgctggctatcaagtgttttggagactgaagatattggcaatcaagttc tcagggacttgcattcgcagagggaacgatacagaaatcgaggtctaggttaagagaacaacgccgagctgggaagaagtaacagaatcatcaatt cgatgatcaacagatctctgcaacacaggtcatcttgacagctatgccatcgtgttctgccttggtcgtgatcagcatctacatcagctactcgtctc gataaactgcacttgtcaccatttagtactctactcgggtgatttccatcattctataaataaataatttattcactgctctagatgaaataaactaactatcatt gaattgaactatcactgttgaacaacacactagtaattattaattgtgtaaaagacaaggactcaatagctgtctgcctctctccgttataataaataatga tctaataaaggattatctcatgctcaatataatgggtatcgtatgtgactatgattcttgatcagattttgaaatgcattcatattttctagaataaacttacgt ctatcattgcacagatattgtactaattcataactcacatcattgtttatcattttagatattttaaagctgattgtgacttaattgtaacgaagatcattctgga gctataaaacttgagttattccaatatcttaattgctattgcaagaaatgttattgtttgtatgctgaatctattaacgatagaatctatgaaaagttggat</p>

	<p>gcttttggatgtaaataatagtaaataagctagagtaataatcaattatctgaaatfaacttgagttcaataaggatggatagatgatgcgtaagt atggctagatggatgataatagatggatagatggctagtaagtttttgtttatggtcctatacaaaaacttaattaattgatatctgattgaaactgctaatt tattctatataccctcgattgattcatgatgcaaatatftccaattattactgaaagtactcatattctactcactgtctgtgaaaaaattgagaattgcat tttaatgtcttttggagttgaaatattcatgtgtaacttattgtaaataaaaataatgtctcattattgtcgaiaaaaaaaaaaaaaaaaaaaaaaa aa</p>
<p>Growth hormone-inducible transmembrane protein 5' untranslated region [57 bp] CDS (58 bp-1083 bp) [1026 bp] 3' untranslated region [297 bp] Poly (A) tail [30 bp] Total [1410 bp]</p>	<p>tcatctaggcctactgtcagctattggaatacactttctagaactaactctgatgatgttggcctcacgactttgtagcttgcacctagcaccactcggaagg acatctattatccgagtggtgcacaaacagtaagctgccttcgacaaaaagcacaagcaatgaactgttcgactctacagcaaccaggggcagaggatcatg gtctagggcatctcctcgtagacgtaccatcaaggaaatcgccatgcaaccagcatctggcacagctttcaacgttggcacagcagcagtgccggggcg agcagctgtcggaatcggtgctgtgtctctacggattgggcttggcatcaaacctggcgcctatggatcagtcattgatgtgcccagatgtgaagg aaagaatcagatcaacctatattttggatcatcagtggtctcacagcagccagtgcttacgcttctcaattcaccagtcattgaaattgatgatga agaactcttaattgcaattgcatgattggctgcgatattggtacatcggtattgtaggagcattccttacacagaaggctttgattgaagcaggcc gcctgggctctgcacaccagtgcataggagcagtcacgcgccatctgttcgtaggagggccatcctagtagctgcttggtagcagccggcggt agtgggtgggctgtcgttgggtgctgcttgcgacccagcgaacagttcctgaacatggcggggcgcctcagcatggcctggcggtagtgttgcgc ctcctcggctctgtctttatgccccaccaccgactcggctccgactctactccatcagcctttacggcggcctgctcctattctccggatttctgctta cgacacgcagaagatcatcaagagtccgaaactcattgccttacgccatggagaatacagatccgatcaacatgtctatgggcatctacatggataca tcaactcttcataagaattgctacaattttgaacaatggtgctcatcaaaaaggagataaagtaactattagaactgattatcctagaataatgtaactata agaattcatctttcatctgcaatttcgtaaaatatttattgttctgatcatggttgacataaagcaatgtattatactccttcaacaaaaattgtaagctta ttaataaatgattgatgaaaaattgtattatacttaattttcacaataaattgtaagattaaatagttgaaatacgaattactgttcaaatattgtaaaaact tcatccacaataaatcagttcattgaaaccgaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa</p>
<p>Nascent polypeptide-associated complex subunit alpha 5' untranslated region [24 bp] CDS (25 bp-666 bp) [642 bp] 3' untranslated region [1517 bp] Poly (A) tail [30 bp] Total [2213 bp]</p>	<p>ctgaaatcttcattttcataaaaatgccaagaacagaactgataaaccagccccactttgacggaagttaaaatgatgcatcagggacggagtca gattccgacgactcaattcctgagctggaggaggaccacaaaaggagcctccgatggtccaggatcatccattgcgttggggaaggagctcctattgat ggtagcagaagccaacaatctcgtggagaaaagaaggctcgaataatattggaagctggcctcaaccgatcccaggagtctcaagagtacaat ccgcaaatccaagaatattctctcgtaatcaacaaccagacgttttcgaaatcctgcatccgatactacattgtttcggtagaagccaagattgaagatc tggacaacaagcgaagttgctgcagccgaaaaattcaagccctgaaattccgagctgcagaggctggaggtagtctgctggtgacacctata caagaggaaagcgaagaagtcgatgagaccggcgttgaagacaaggatgttattggtgatgtctcaggcgaacgtcagtcaggaaaagcaat caaggctcttcgaaacaataagaacgacatcgtaaatgcaatcatggaactcaccatataagagtggttggatccgagtcgaagtgtcggatcagggtttca atttatcgagtggtttcattcttactatgatgttattattctgtgtgtaaaagactctatcgaataactattcactaattctctcaaaagaaaatctac gaatttaaaagcgtgtaccaagaatagtttctgttttgaataatagaacatgttatcggtagccaatataactaaaacgtattacatctgaggat</p>

	<p>gatttattttgtccaatatttatatgattacattatcttactgattfctcatcaagtgaaaatfcagtaattcaaaagcatgtactaagaaaatatttccattctctg tctagaataaaaaaagcgttatcgttgatgttgaggcttagtatactcaacatctttacacctaactttgattttttaaaaatactttatgatcataggctacta ttttacgtaatctctcatcaagaaaaaataagtcacgtttttaaaagcgagaactggataagtttggagttcttgtttagtttgcagttcaaatgtaaaatg agttatcagtatagcctagtagattgaagattgcattttggctaggtacgctggttggtcacgggttgattctcattcctcttggaaatccggagcctcctca gaccaggaggtatctggcaatcgaatgtatgtgaaatgttacagaagatcattcttctgtttaccatagtttaattttgaaaataggcctacacctgta gataattttgtttaaaagtgtagcagctcgtgaatcaacctcactcagttatatttccacatgtcccattctgttatactttgtctgtgggtgatgccacatggg ctccttggcctgtgtgtgggtaatgagagggatgatgatgagagatgacgactactttttagcagctctggaccgacggcctatcgtcttctcctaaatggf catctgaatatttttaatacatttaatacttacttcaatctcaaaatccatagttcgttt cttcttcttcttctcgtggcctacagctcaaatcagccctggcctcctcagcctgaggtgaaatcctcaaaatctctgtttaaatttagaatttaactctgtt gaaccaattgttatccaacaggcattattcatagattcttttaagattctctgtatagtagaatccaatatagaatgggaatcgaaccaactattagattaa gttgtgagccctgtctactgggtatatactagattatattttctagtactgcgtttcaattattacaattgtatattgttattcatgttgataactataattgtaag agtgaactatagtttaataataaatcatttctgttctgttt</p>
<p>ATP synthase lipid-binding protein 5' untranslated region [46 bp] CDS (47-469 bp) [423 bp] 3' untranslated region [598 bp] Poly (A) tail [30 bp] Total [1097 bp]</p>	<p>ggagttcgtcgtcgtgcaagaaaacccaactccaaactccaaaatgtactcaaacattgcaagaattgtggcccagctgcccgatctgcttgggtatc aggatcaagagcctacgtgaggccactgagcagttcagtggtgcacaccaccgcttcaactcacagaatacacagagcactccaaccgttagttgttac ccgccgaaggaactccaacactcagctgtcgcgcgatattgactcagctgccaaatcctcgggtgccggagccgccaccgttgagtcgctggctc aggagccggaatcggaacagtggtcggctcgtgatcagctgacgccaggaatcctcagctcaagcagcagctgttctcttacgccattctgggattcg ccctgtccgagccatgggtctctctgtcttatgatggccttctcgtctgttctgctttctaaacagcatttctacatttagttgattacaaaaataagataatta taaattgaaaaacagaacaggactacactgccacttgggggtgatttaaaaccaggtcgcgatatttctatttaaaagggtgttggtagcaggagtggtt acggcgaaacgatcagggtcgtatattcagctatcgtatattatcagctagttggggccttcacattagtggtgaatatcgaacgatgttgggttaatt ggggcaaaccttccatcgaactcttacacaaaacatcggctcaccacgggtgaaactcctagatttaagttcatccctcctcagcaataataagctt acaagctagatgaagaaacaattccatcaatgtttattatgttactagttgtacttctcaaaaaatttaataattgtaattttcatcatctatccgggatga gttgttgacattacaatgctattgaactcaattttgtataaaaaatcggctttattatcgtcttaattgttcttttgaacttggatgatatgacgcgagagaca ttccattgtgtacagtttagagtaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa</p>

Supplemental Table S2: Primers used in this study

Primer name	Primer sequence
<u>Yeast two-hybrid</u>	
SRBSDV-P10-F:	5'- ATTAACAAGGCCATTACGGCCATGGCTGACATAAGACTTGA-3'
SRBSDV-P10-R:	5'-AACTGATTGGCCGAGGCGGCCCTCTGGTGACTTTATTAA-3'
pPR3N-F	5'-GTCGAAAATTCAAGACAAGG3'
pPR3N-R	5'-AAGCGTGACATAACTAATTAC3'
M13-F	5'-CGCCAGGGTTTTCCCAGTCACGAC-3'
M13-R	5'-AGCGGATAACAATTCACACAGGA-3'
<u>Full-length gene sequence amplification</u>	
Vesicle-associated membrane protein 7	
GSP-1	5'-AACCGTACAGGTGATT-3'
GSP-2	5'-TAGTTGCTCGGAATGTGA-3'
GSP-3	5'-ATCCAATTCGCCATGTAC-3'
Vesicle transport V-SNARE protein Vti1a	
GSP-1	5'- ATCACGACCACAAGG-3'
GSP-2	5'-GATTTCTGTATCGTTTCCCTCT-3'
GSP-3	5'-GATAGCCAGCAGTCAATTTCTT-3'
Growth hormone-inducible transmembrane protein	
GSP-1	5'-TAAAGGCTGATGGAGTA-3'
GSP-2	5'-CAACGACAGCCCACCCACTA-3'
GSP-3	5'-CCAATCATCGCAGCCAAACT-3'

Nascent polypeptide-associated complex subunit alpha

GSP-1 5'-TTCTTCGTCGCTTTCC-3'
GSP-2 5'-ATCTTCAATCTTGGCTTCACC-3'
GSP-3 5'-ATTCTTGGATTTGCGGATTG-3'

ATP synthase lipid-binding protein

GSP-1 5'-GCTTGAGCGATGGATT-3'
GSP-2 5'-TACGGCGGGTAACAAACT-3'
GSP-3 5'-GGCGGGTAACAAACTAACG-3'

GST Pull-down assay

pGEX+P10-F 5'-CGCGGATCCATGGCTGACATAAGACTTGA-3'
pGEX+P10-R 5'-CCGCTCGAGCATCTGGTGACTTTATTTAA-3'
pCold+VAMP7-F 5'-CGCGGATCCATGCTTATCCTATACAGTGTA -3'
pCold+VAMP7-R 5'-CCCAAGCTTTTCAGCAACTGGACAAAGTCGA-3'
pCold+Vti1a-F 5'-CGCGGATCCATGGCTGCTTTAATTGATGTTTA-3'
pCold+Vti1a-R 5'-CCCAAGCTTTTATCGAGAGCGAGTAGCTGATA-3'
pCold+Ghitm-F 5'-CGCGGATCCATGTTGGCCTCACGACTTTGTA-3'
pCold+Ghitm-R 5'-CCCAAGCTTTTATCTCCTTTTTTGATGAGCCA-3'
pCold+ Nascent-F 5'-CGCGGATCCATGCCAGAAGCAACAGAACTTGA-3'
pCold+ Nascent-R 5'-CCCAAGCTTTTCATATGGTGAGTTCCATGA-3'
pCold+ ATPase-F 5'-CGCGGATCCATGTA CTCAAACATTGCAAG-3'
pCold+ATPase-R 5'-CCCAAGCTTTAGAAAGCGAACAAGAGCAG-3'

Gene expression analysis (RT-qPCR)

qVAMP-7-F 5'-ACAGAACAAATCCTGGCGAAAA-3'
qVAMP-7-R 5'-CAAACATCATCCGCAATACA-3'
q Vti1a-F 5'-CGCAGAGGGAAACGATACA-3'

q Vti1a-R

5'-ACCACAAGGCAGAACACGA-3'

q Ghitm-F

5'-GTAGTGGGTGGGCTGTCGTT-3'

q Ghitm-R

5'-GCCGTAAAGGCTGATGGAGT-3'

Supplementary Fig.1: GST Pull-down analysis of the interaction between SRBSDV-P10 and WBPB protein by Western blot

(A)

1: Protein Ladder

2: VAMP7-His (39.7 kDa) (Input)

3: VAMP7-His + GST (Pull-down = Negative control)

4: VAMP7-His + P10-GST (Pull-down)

(VAMP7-His = 39.7 kDa)

5: Protein Ladder

6: Vti1A-His (39.7 kDa) (Input)

7: Vti1A-His + GST (Pull-down = Negative control)

8: Vti1A-His + P10-GST (Pull-down)

(Vti1A -His = 40.4 kDa)

9: Protein Ladder

10: Ghitm-His (51 kDa) (Input)

11: Ghitm-His + GST (Pull-down = Negative control)

12: Ghitm-His + P-10-GST (Pull-down)

(Ghitm-His = 51 kDa)

(B)

Lane

1: Protein Ladder

2: Nascent polypeptide-associated complex subunit alpha-His (37.5 kDa) (Input)

3: Nascent polypeptide-associated complex subunit alpha-His + GST (Pull-down = Negative control)

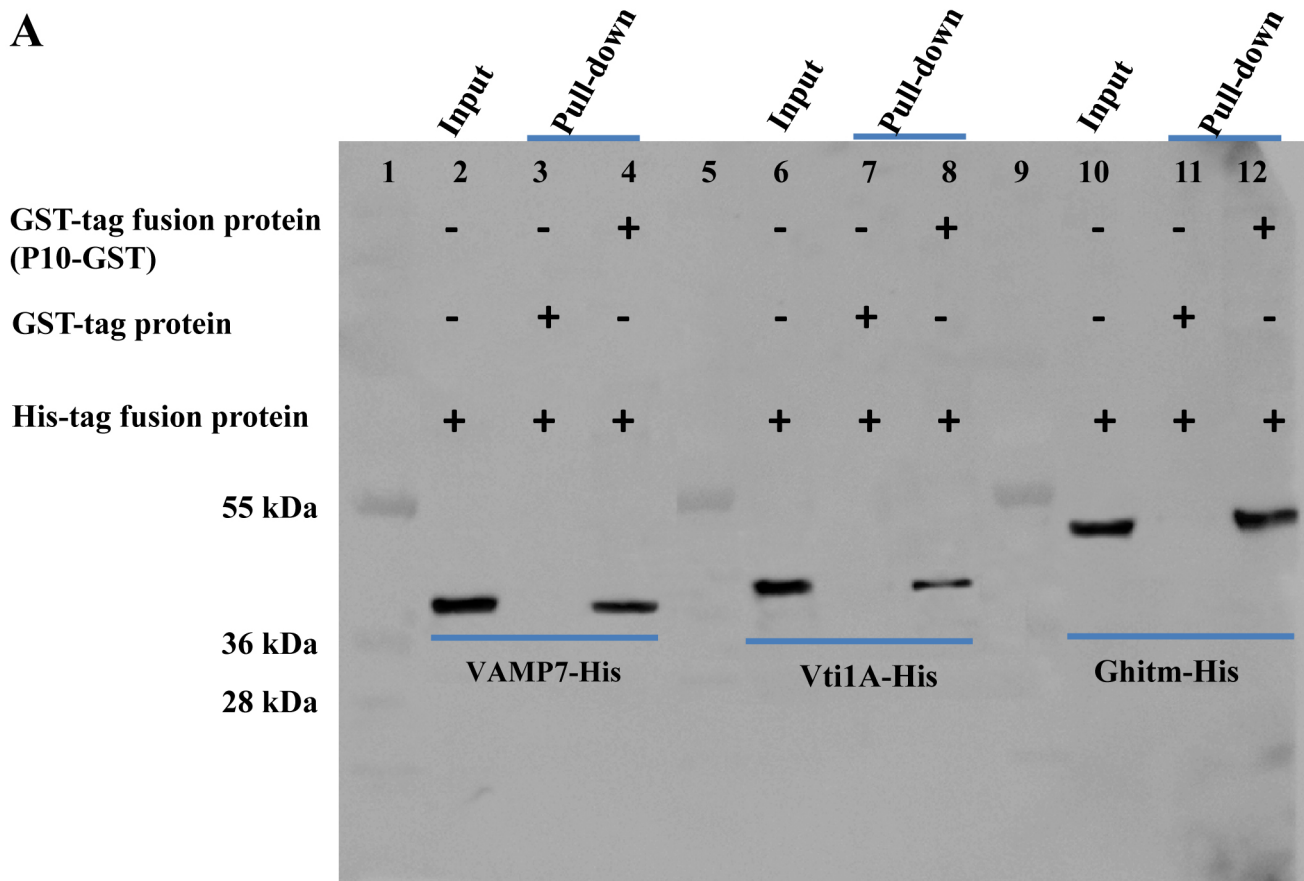
4: Nascent polypeptide-associated complex subunit alpha-His + P10-GST (Pull-down)

5: Protein Ladder

6: ATP synthase lipid-binding protein-His (29.4 kDa) (Input)

7: ATP synthase lipid-binding protein-His + GST (Pull-down = Negative control)

8: ATP synthase lipid-binding protein-His + P10-GST (Pull-down)

A

B