





Supplementary Figure S1. (a) Polytene chromosomes of *R. americana* after in situ hybridization (red signal) using the probe made of DNA from the microdissected X-1 chromosome end of *T. pubescens*. (b) The same chromosomes stained with DAPI and (c) the corresponding merged signals. Bar =15 μm.



Supplementary Figure S2. Results of insert sequencing from the plasmid library made with DNA from the microdissected X-1 chromosome end of *T. pubescens*.



Supplementary Figure S3. Localization of phage 2 probe from the screening of the genomic library of *T. pubescens* in chromosomes of *R. americana*. Hybridization detection was made with alkaline



phosphatase and the chromosomes photographed under bright field. Heterochromatic ends identified in the figure correspond to the regions containing more intense hybridization signals.

Supplementary Figure S4. Localization of p*Tp*-1 probe in *T. pubescens* chromosomes. (**a**) hybridization signals, (**b**) chromosomes stained with DAPI and (**c**) the merged hybridization and DAPI signals. Bar = $15 \mu m$.

а

>pTp-2.1R

TGTCCCCGTTTCGAACGAGAGCGGTCGGAGGTTTTAATCGAAAACGGAGTAGTTCTGCATGCCGATAA TG

TAGGGCGGAAATGTGCAGTGACGAGAAAGTGTGAAAGCGGTGGACAATGCAGTTGCGAAGATAATG GGAA

GGCTGCAAAGTACATGGAGAGAGGAGCAGCGCAGCGAAGCAAATCGTCTGATGGTCTCTGATGGCGC GTA

| AGAGCGCAGCCCCTCCCCGAAGTAATGCTGTGAGGCGGTTCCGGGGAGACGAGGGCGTGGTGGCCAA |
|----------------------------------------------------------------------------------|
| GGA |
| GTGAGGGTTTAGTCGGTAAGAATCCGACACTCTGGGTGCTAATTCCAGATGTCTATGAAGATTCCCTC |
| AA |
| ССТТДТААААААААААААААААААААААААААААААААА |
| TTTG |
| CTACTTTTTGTAGCAGTATTTACGGTCTTTGTTATCATGATTCGTGAAGTAAACACTGAAGCTCACTGTG |
| TACGTAATTTATTCCGACTCCCATAAAATCTGTCAATAAAGGAATAATTTTATAACAATGTACCATTCA |
| Α |
| GACCTATTATGTTCTTCGACGTCCTGGAAATTGACAGATAATAAGGTAAACATTTCGCTTACAGTTTCA |
| Α |
| ACTGGTCTGAAATACACTTAGGAAGCTTCTCGTGAAGTATCGTTTTAGGAAACTAGGGGAGACACTGG |
| TT |
| ACTCACCTTACAATGACTTTTAGTAAGCGATTATAAAACTACATCAAACACTTCATCTTAAATGTCACA |
| Α |
| TAACTACACGTAAAAAGTACAATATGAATAAAATGATTTGCCTTCACGTTACTTCCTCACAATTAAAT |
| GG |
| GTCCTGGTAATGAACTAGTTGGTGATGAACCTATAGCCAGTGATGATCGTATAGCTCAACAACATGAC |
| AT |
| AGCGTATGACAATGCAGTTGACGAAGGTGACATTTATGAAGCTGACGAGAGGGGCGATTTTTGCATTCG |
| ТА |
| CTAGATTGGATTAAAAAATAAAAATTGGCATTCTGCTATTGGAGTCATGGGTTTAGGCGTTAAACATTT |
| Α |
| TTAGATGTAATATGCTGTAGAGTTTTTTATTGAAGTAATTGGTCNANAGGACTGGTGAACACCACTGTC |
| G |
| ATAACCGTTTGCATTGGATGTACAGAGAAAAGATCCAATTCTGATTTTACATTCATT |
| Т |
| TTATGTACGCCATTTTTAATTTGTAAAAAAAACGTTATGTTTTTCTTGTTGTTCTAGTAGTTGCCTTT |
| TTAGTCGTTACTGTTTTACGTTTCTTGATGTTTGCCCGTTGAGNGACTTTACTCGAATTGTGTTTGCTCT |
| ACTTTGGAAAGTTTTCTTGCTGTTTGGGTGANAAGTTTTTTCTTAAAATTGTNTTCTCAG |
| b |
| VP [Haematobia irritans densovirus] |
| Sequence ID: <u>QCH41363.1</u> Length: 687 Number of Matches: 1 |
| Range 1: 4 to 64GenPeptGraphics Alignment statistics for match #1 |
| Score Expect Method Identities Positives Gaps |
| 61.2 bits(147) 6e-06 Compositional matrix adjust. 31/61(51%) 40/61(65%) 0/61(0%) |
| +3 |
| Query 813 FTLLPHN*MGPGNELVGDEPIASDDRIAQQHDIAYDNAVDEGDIYEADERAIFAFVLDWI 992 |
| FTL++ +GPGN L EPI DIA++HDIAYD A + DIY+AD AI F D++ |
| Sbjct 4 FTLIGYKYLGPGNSLDKGEPINKADSIAREHDIAYDRAKTKEDIYKADREAIIQFKDDFL 63 |
| |
| Query 993 K 995 |
| K |
| Sbjct 64 K 64 |
| |

Structural protein [Periplaneta fuliginosa densovirus]

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Sequence ID: <u>NP 051016.1</u>Length: 242 Number of Matches: 1
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Range 1: 154 to 223GenPeptGraphics Alignment statistics for match #1

| | Score | | Expect | Method | Identitie | es Positives | GapsFrame |
|---------|-------|-------------|----------|----------------------------|---------------|---------------|---------------|
| | 48.5 | 5 bits(114) | 0.019 | Compositional matrix adjus | st. 28/70(40° | %) 39/70(55%) | 0/70(0%) |
| +3 | | | | | | | |
| Query | 828 | HN*MGF | GNELVG | DEPIASDDRIAQQHDIA | YDNAVDEC | GDIYEADERAI | FAFVLDWIKK*KL |
| 1007 | | | | | | | |
| H+ +GP | GN L | +EP+ D | D IA++HE | AY NA D+ AD++AI | F D+K | L | |
| Sbjct 1 | 54 I | HHYLGPG | NPLDNN | IEPVDRDDAIAEEHDKA | YANAKSSIE | OVINADKKAII | DHFSEDFEKNGNI |
| 213 | | | | | | | |
| | | | | | | | |
| Query | 1008 | AFCYWS | HGFR 1 | 037 | | | |

G + Sbjct 214 HSLIGKTGLQ 223

Viral protein, partial [Helicoverpa armigera densovirus]

Sequence ID: <u>AEI26261.1</u> Length: 448 Number of Matches: 1

Range 1: 8 to 63GenPeptGraphics Alignment statistics for match #1

| | Score | | Expect | Method | | | Identities | Positives | GapsFrame | - |
|--------------------------------------------------------------|-------|----------------------|-----------|------------------------------|------------|-----|------------|------------|-----------|-----|
| | 50.8 | 50.8 bits(120) 0.007 | | Compositional matrix adjust. | | st. | 27/57(47%) | 35/57(61%) | 1/57(1%) | _ |
| +3 | | | | | | | | | | |
| Query | 828 | HN*MO | GPGNELVGI | DEPIASDD | RIAQQHDIAY | DN/ | AVDEGDIY | EADERAIFA | FVLDWIKK | 998 |
| HN +G | PG + | EP+ | DD IA++HD | +AY NA | DIY+AD+ A | F | D KK | | | |
| Sbjct 8 | 8 | | | | | | | | | |
| HNYLGPGTKDFTKEPVDEDDEIARRHDLAYANATSHQDIYKADKEASKEF-FDSFKK 63 | | | | | | | | | | |

Structural protein VP [Human CSF-associated densovirus]

Sequence ID: <u>ANG55948.1</u> Length: 840 Number of Matches: 1

Range 1: 243 to 302GenPeptGraphics Alignment statistics for match #1

| | Score | Expect | Method | Identities | Positives | GapsFrame |
|----------|---------------------------------|-------------------------|-------------------------------------------------|--------------|------------------------|-------------------|
| | 50.4 bits(119) | 0.015 | Compositional matrix adjust. | 26/60(43%) | 37/60(61%) | 0/60(0%) |
| +3 | | | | | | |
| Query | 810 AFTLLPH | IN*MGPG | NELVGDEPIASDDRIAQQHI | DIAYDNAV | DEGDIYEAI | DERAIFAFVLDW |
| 989 | | | | | | |
| +TL F | H +GPGN + + | P+ DD L | A++HD AY A ++ DI ADE+A | A F+DW | | |
| Sbjct 2 | 43 GYTLPGH | KFIGPGN | PVDTEVPVDEDDAIAKEHD | EAYATAKN | QKDIAIAD | EQAADKFLSDW |
| 302 | | | | | | |
| Su ob | pplementary F tained by BLAS | igure S5. Tx. | (a) Partial sequence of p <i>Tp</i> -2 | 2.1 plasmid. | (b) Protein a | alignment results |