**SUPPLEMENTAL FIGURES**

**Supplemental Figure 1.** *Diabrotica virgifera* *virgifera* *brahma* sequences

**Supplemental Figure 1A.** *Diabrotica virgifera* *virgifera* *cDNA* sequence containing *brahma* open reading frame (underlined). dsRNA sequence is highlighted in grey. Accession No. KR152260.

caagtggccatggcatgccacagggtccccctggacaaccaggtcagcaacaccaaggccgaactgctgataatttacatgccttacaaaaagcaatagatacaatggaagaaaaaggtatgcaagaagatcagaggtattcacagttactggcgttacgtgctagatccagtggtcaaccatctaacggagttcttacaccgctgcaaatgaatcaacttagaaatcaaattatggcatacaggtgcctagcgaggagccaaccaattcctccttcaataatgttggggctgcaaggaaagaggcctgacggttcaccacagtttcctacacctccgtcaagtccgtttcaaccacaaggacctggtgcaccccctggtccggaacaaccaccagctaatgcagaaaacgtagcagagccagcagcaccagtaggaccgcaaggtgcacaaggacctcctaaccaacagagagctcaaactagccagttagtccccaataagcaaactcgtttcactaccatgcccaaaccatctggactagatccactagttcttcttcaagagagggaaactagggtggcagctagaatcgctgctagaatagaacaatgtagtaacttacctaccaatctttcagacaaagtccgcatgcaagcacagatagaattgagagctttgcggtgccttaatttccaaaggcaactaagaagcgaaattttgaactgtattaggagagatataacgcttgaatctgctgtaaattttaaagcatataaaagaacgaagcgacagggtctaaaagaatcgagagctacagagaagttagaaaaacaacagaagttagaagcagaaagaaagagaagacagaagaaccaagaatttttgaatgctgtattgaacaatggaaaagaattcaaggaattccacaagcagaatcaagcgaaattagctaagattaataaagctgttattaattatcacgctaatgctgaaagagagcaaaagaaagaagcagaaaggagagagaaggaacgtatgatcagattgatggcagaagatgaagaaggttatagacagttgatcgatcaaaagaaagacaaacgtctagcgttcttgctttcccaaacagatgaatatatcagtaacttaacagagatggtgaaaatgcacaaagtcgaacaaagtaacaagaagcgggaagaagaacgacggaagagaaggcaagacaaaatgcagcagcctgacaggaaagtcacagttatcgaaatggctactgggaataaggttagtggagaaaacgctccgactgtccaggaacttcctgaatggttacagactcatcctggttgggagatgatagatacagaagacgaggacgagaatgacgaatatagaatggacgattatgaagaaaataatcaagtcgatgctacagaaatcattcagaaagccaaggttgaggatgacgaatatcacaagaatgccacagaggaacagacgtactacggtattgcacatacagtgagcgagtcagtatcagaacaggcctccattatgataaacggtgaactgaaagagtaccaggtcaaaggactggaatggatggtatccttgtacaacaacaatcttaatggtatcctagcagacgagatgggtttgggtaagactattcaaaccattggcctgatcacctacttgatggagaaaaaaaagttgaatgggccatttttgatcattgtgccgttatccactatatctaattggatgttggagttcgaaaaatgggctccttctgttgtggtcgtctcctacaaaggctcacctggtcacaggaaattgcttcagggtcagatgaagtcagcaaaattcaatgttcttcttactacttatgaatatatcattaaagataagggaattctttcaaaagtaccgtttaagtatatgatcgtggacgagggtcacagaatgaagaaccatcattgcaagttgacccagactttgaacactcactacgcagctcctttccgccttctcttaaccggtactcctctacaaaacaaactaccagaactgtgggcgttgcttaacttcttacttccgtctattttcaagagttgttccactttcgagcaatggttcaacgcccctttcgcaaccacgggagaaaaggttgaacttaacgaagaagaaaccatccttatcatccgacgtcttcacaaagtcctgcgacctttcctcttaagacgtctcaaaaaggaagtagagtctcagcttcccgacaaagtcgaatacattatcaaatgcgagatgtccggtttgcaaaaagtgttgtaccaacacatgcagagcaagggagttctgctcaccgacgggtccgaaaagggtaataggggccgaggtggagctaaggctatcatgaataccatcatgcaactgcggaagctgtgtaatcatcctttcatgttccaaatgatcgaagaaaagtattgtgaatatgtaggcatgggtgggggactcacatcagggccggatatatacagatcttctggtaaatttgaacttctggatcgggtattgccaaagctcaaggcgactgaccacagagtcctactgttctgtcaaatgacgacgttgatgaacatcatggaagactacttcatttggagaggttacaaatatcttcgtctggatggtatggtaaaagcggaagatcgggcggaactactcaagaagttcaatgacaaacaaagcgaatattttgtgtttctattgtcaacaagagcaggaggtcttggactcaacttgcaaagtgctgatactgttatcatctttgattctgactggaatcctcaccaggatttacaagctcaagatcgtgcccatcgtataggccagcaaaatgaagtcagggtcctacgtttaatgacagttaattcagtggaagaaagaatcttagctgcagctaaatacaaacttataatggacgagaaagtaatccaagctggtatgttcgatcagaagtctacaggctcagagagacatcagtttttgcagagtattttacaccatgacggaagcgacgaagaagaggaaaacgaagttcctgatgacgaaacagtgaaccagatgttggcccgaagggaaaacgaatttcagcttttccagaagatggatcaggaaagaaaggaagaagatgaaaagaccggaaagtcgcgacttattcaagaaagcgaattgcccgaatggctgttgaagcaagacgatgaaatctactcgtggggccttgatgatccagatgctgttttaggaaggggtagtaggcaaagaaaagaagttgattatgttgacagcctgacggagaaagagtggcttaaggctattgacgaagagggagaatttgaggaagaacaagaaggtgataaagaaggtctcagaaagaaaagagggaggaagaggaagaagcgcgatgatgacgaagaggcaagccaaattaagagaagaaaggtgcatctagccgagatcaagatgaagaaaaagatgaagaggcttatggaagttgttgtgaactacagggatagggatggtagagtattgagcgaaccgtttatgaaacttccatcaaagaaggagttacctgaatattacgatacgattaagaaacctattgatattgaaaaagtcgttgccaacgtagaagaaggaaaatatttcacgatgcacgatttggaaagagatttcgacttgctgtgccaaaacgcccaacaatacaacgaagaagactccatgatctacgaggacagcctcgttcttcgacaggtgtttagaagcgcgagggaaaagatcgacggtacctcagaccacgacgacaacgccgatggaccggcggtggctcagatcaaacgacctcgtggtagacctcgaaaacacaagagacccgaagagatcgaggccgaagcggcggctcagaaagctatggaggaggcatcgaagctgagagctcaagctgaggcggaagagcttagatctaaggtggaggaggcatctcagagagccaaagaggaagcgaaagcaagggaggaagccaaagctagggaagaagccgaaatcgagaacatggaggagattcccacaagcacatgatctatagagcaaccggaaacaaaaaggcaaaaaagaaatattatatagaaaagatgtacatgttcaatggagatacattttcgctgagttacaacgggtaatgcttttacaacggatattttgacgtatgaatgttgacgttcagatgaagtatatttataaaataatccagacctttacgttttggttgatttgttttctgtattgttcagtttattgaacaaccattaatagcagcttacctaaatgatttagaaaagcatctgagttatttagataagttttgagattatatttattaactttaatattactatctttattatagcatattgtaattattttttcctgtccttctttcgttgtgtggtagataatccgagagtcaacagttataagcaaatgaaattcagttaaacctcaaatgtacaaaatgatcaaattaatgtttacaatttatttttttaccacgcacatccactattactattgtcagtcattgagatatcattttatatagctccatgtctgtcttcctcaatttacagagaagcaattagacaagtaatgacataatatggtgctgaaataatgtgcttgatagtgatgttgaaaaagtaactatt

**Supplemental Figure 1B**. Protein translation of *brahma* sequence from *Diabrotica virgifera virgifera* *cDNA*.

mpqgppgqpgqqhqgrtadnlhalqkaidtmeekgmqedqrysqllalrarssgqpsngvltplqmnqlrnqimayrclarsqpippsimlglqgkrpdgspqfptppsspfqpqgpgappgpeqppanaenvaepaapvgpqgaqgppnqqraqtsqlvpnkqtrfttmpkpsgldplvllqeretrvaariaarieqcsnlptnlsdkvrmqaqielralrclnfqrqlrseilncirrditlesavnfkaykrtkrqglkesrateklekqqkleaerkrrqknqeflnavlnngkefkefhkqnqaklakinkavinyhanaereqkkeaerrekermirlmaedeegyrqlidqkkdkrlafllsqtdeyisnltemvkmhkveqsnkkreeerrkrrqdkmqqpdrkvtviematgnkvsgenaptvqelpewlqthpgwemidtededendeyrmddyeennqvdateiiqkakveddeyhknateeqtyygiahtvsesvseqasimingelkeyqvkglewmvslynnnlngilademglgktiqtiglitylmekkklngpfliivplstisnwmlefekwapsvvvvsykgspghrkllqgqmksakfnvllttyeyiikdkgilskvpfkymivdeghrmknhhckltqtlnthyaapfrllltgtplqnklpelwallnfllpsifkscstfeqwfnapfattgekvelneeetiliirrlhkvlrpfllrrlkkevesqlpdkveyiikcemsglqkvlyqhmqskgvlltdgsekgnrgrggakaimntimqlrklcnhpfmfqmieekyceyvgmgggltsgpdiyrssgkfelldrvlpklkatdhrvllfcqmttlmnimedyfiwrgykylrldgmvkaedraellkkfndkqseyfvfllstragglglnlqsadtviifdsdwnphqdlqaqdrahrigqqnevrvlrlmtvnsveerilaaakyklimdekviqagmfdqkstgserhqflqsilhhdgsdeeeenevpddetvnqmlarrenefqlfqkmdqerkeedektgksrliqeselpewllkqddeiyswglddpdavlgrgsrqrkevdyvdsltekewlkaideegefeeeqegdkeglrkkrgrkrkkrdddeeasqikrrkvhlaeikmkkkmkrlmevvvnyrdrdgrvlsepfmklpskkelpeyydtikkpidiekvvanveegkyftmhdlerdfdllcqnaqqyneedsmiyedslvlrqvfrsarekidgtsdhddnadgpavaqikrprgrprkhkrpeeieaeaaaqkameeasklraqaeaeelrskveeasqrakeeakareeakareeaeienmeeiptst\*

**Supplemental Figure 1C.** Alignment of *brahma* amino acid sequences from *Diabrotica virgifera virgifera (Dvv)* (Accession number: KR152261) and *Tribolium castaneum (Tc)* (Accession number: XP\_008198809.1). Amino acid identities are highlighted in black and similarities are in grey.

1 50

Tc\_Brahma (1) ------------------------------MEEKGMQEDPRYSQLLALRA

Dvv\_Brahma (1) MPQGPPGQPGQQHQGRTADNLHALQKAIDTMEEKGMQEDQRYSQLLALRA

51 100

Tc\_Brahma (21) RTNG--SNTIFSPMQMSQLRAQIMAYRMLARNQPLSPQIVNAVQGKRPDG

Dvv\_Brahma (51) RSSGQPSNGVLTPLQMNQLRNQIMAYRCLARSQPIPPSIMLGLQGKRPDG

101 150

Tc\_Brahma (69) TPQCPTPPSSPFQPQGVQPQGGPPASEANEPLPPESGAASQQAMRPPGPP

Dvv\_Brahma (101) SPQFPTPPSSPFQPQGPGAPPGP-----EQ--PPANAENVAEPAAPVGPQ

151 200

Tc\_Brahma (119) GSQTGPASGPPGPVQQQPQLQGVKPGPPTTQQNATGIRPGGPNQPNQTGN

Dvv\_Brahma (144) G-----AQGPP-------------------------------NQQRAQTS

201 250

Tc\_Brahma (169) QQTSTKQNRVTTVPKPVGIDPVVLLQERENRLVSRIAARMEQLSNLPTNM

Dvv\_Brahma (158) QLVPNKQTRFTTMPKPSGLDPLVLLQERETRVAARIAARIEQCSNLPTNL

251 300

Tc\_Brahma (219) SEELRIQAQIELRALRCLNFQRQLRNEIIACTRRDTTLETAVNIKAYKRT

Dvv\_Brahma (208) SDKVRMQAQIELRALRCLNFQRQLRSEILNCIRRDITLESAVNFKAYKRT

301 350

Tc\_Brahma (269) KRQGLREARATEKLEKQQKLEAERKRRQKHQEFLTSVLQHGKDFKEFHRN

Dvv\_Brahma (258) KRQGLKESRATEKLEKQQKLEAERKRRQKNQEFLNAVLNNGKEFKEFHKQ

351 400

Tc\_Brahma (319) NQAKLARLNKAVMNYHANAEREQKKEQERIEKERMRRLMAEDEEGYRKLI

Dvv\_Brahma (308) NQAKLAKINKAVINYHANAEREQKKEAERREKERMIRLMAEDEEGYRQLI

401 450

Tc\_Brahma (369) DQKKDKRLAFLLSQTDEYIANLTEMVKQHKLEQKRKQQEEEKRKKKKKRA

Dvv\_Brahma (358) DQKKDKRLAFLLSQTDEYISNLTEMVKMHKVEQSNKKREEERRKRR---Q

451 500

Tc\_Brahma (419) EGLLADGSQGPDRPVTVVETATGKKLSGEDAPMLSQLQEWLLQHPGWEAM

Dvv\_Brahma (405) -----DKMQQPDRKVTVIEMATGNKVSGENAPTVQELPEWLQTHPGWEMI

501 550

Tc\_Brahma (469) DSDDEDSEDEEESELIKRREDENRSEEDKAKELINKAKVEDDEYHKNANE

Dvv\_Brahma (450) DTEDEDENDEYRMDDYEE---NN---QVDATEIIQKAKVEDDEYHKNATE

551 600

Tc\_Brahma (519) EQTYYSIAHTVHEIVTEQASIMVNGKLKEYQTKGLEWLVSLYNNNLNGIL

Dvv\_Brahma (494) EQTYYGIAHTVSESVSEQASIMINGELKEYQVKGLEWMVSLYNNNLNGIL

601 650

Tc\_Brahma (569) ADEMGLGKTIQTIALITYLMEKKKVNGPYLIIVPLSTLSNWVLEFEKWSP

Dvv\_Brahma (544) ADEMGLGKTIQTIGLITYLMEKKKLNGPFLIIVPLSTISNWMLEFEKWAP

651 700

Tc\_Brahma (619) SVQVVSYKGSPAGRRTIQSQMRSTKFNVLLTTYEYVIKDKGVLAKLPWKY

Dvv\_Brahma (594) SVVVVSYKGSPGHRKLLQGQMKSAKFNVLLTTYEYIIKDKGILSKVPFKY

701 750

Tc\_Brahma (669) MIIDEGHRMKNHHCKLTQVLNTHYLAPHRLLLTGTPLQNKLPELWALLNF

Dvv\_Brahma (644) MIVDEGHRMKNHHCKLTQTLNTHYAAPFRLLLTGTPLQNKLPELWALLNF

751 800

Tc\_Brahma (719) LLPSIFKSCSTFEQWFNAPFATTGEKVELNEEETILIIRRLHKVLRPFLL

Dvv\_Brahma (694) LLPSIFKSCSTFEQWFNAPFATTGEKVELNEEETILIIRRLHKVLRPFLL

801 850

Tc\_Brahma (769) RRLKKEVESQLPDKVEYIIKCDMSGLQKVLYKHMQSKGVLLTDGSEKGNK

Dvv\_Brahma (744) RRLKKEVESQLPDKVEYIIKCEMSGLQKVLYQHMQSKGVLLTDGSEKGNR

851 900

Tc\_Brahma (819) GKGGAKALMNTIVQLRKLCNHPFMFQNIEEKYCDHVGISGGVISGPDLYR

Dvv\_Brahma (794) GRGGAKAIMNTIMQLRKLCNHPFMFQMIEEKYCEYVGMGGGLTSGPDIYR

901 950

Tc\_Brahma (869) ASGKFELLDRILPKLKVTGHRVLLFCQMTQLMTIMEDYLSWRGFGYLRLD

Dvv\_Brahma (844) SSGKFELLDRVLPKLKATDHRVLLFCQMTTLMNIMEDYFIWRGYKYLRLD

951 1000

Tc\_Brahma (919) GTTKAEDRGDLLKKFNAKNSDYFLFLLSTRAGGLGLNLQSADTVIIFDSD

Dvv\_Brahma (894) GMVKAEDRAELLKKFNDKQSEYFVFLLSTRAGGLGLNLQSADTVIIFDSD

1001 1050

Tc\_Brahma (969) WNPHQDLQAQDRAHRIGQQNEVRVLRLMTVNSVEERILAAARYKLNMDEK

Dvv\_Brahma (944) WNPHQDLQAQDRAHRIGQQNEVRVLRLMTVNSVEERILAAAKYKLIMDEK

1051 1100

Tc\_Brahma (1019) VIQAGMFDQKSTGSERQQFLQSILHQDGDEEEEENEVPDDETVNQMVARS

Dvv\_Brahma (994) VIQAGMFDQKSTGSERHQFLQSILHHDGSDEEEENEVPDDETVNQMLARR

1101 1150

Tc\_Brahma (1069) EAEFELFQKMDLERRREEAKLGPNRKPRMMEISELPDWLVKDDDEVDPWN

Dvv\_Brahma (1044) ENEFQLFQKMDQERKEEDEKTG---KSRLIQESELPEWLLKQDDEIYSWG

1151 1200

Tc\_Brahma (1119) YDETESALGRGTRQRKEVDYTDSLTEKEWLKAIDEGGDYDDEDDEEEK-V

Dvv\_Brahma (1091) LDDPDAVLGRGSRQRKEVDYVDSLTEKEWLKAIDEEGEFEEEQEGDKEGL

1201 1250

Tc\_Brahma (1168) KKKRGRKRRKRGDDSDSEVGTSKRRRGQSSADLKLKRQMRKLMNIVTRYT

Dvv\_Brahma (1141) RKKRGRKRKKR--DDDEEASQIKRRK-VHLAEIKMKKKMKRLMEVVVNYR

1251 1300

Tc\_Brahma (1218) DSDGRLLSEPFMKLPPRKDYPDYYEIIKKPMDINKILGRIEDSKYNDFND

Dvv\_Brahma (1188) DRDGRVLSEPFMKLPSKKELPEYYDTIKKPIDIEKVVANVEEGKYFTMHD

1301 1350

Tc\_Brahma (1268) LERDFMLLCQNAQIYNEEASLIHEDSIVLQSVFTNAKQRIESGVPDSDDD

Dvv\_Brahma (1238) LERDFDLLCQNAQQYNEEDSMIYEDSLVLRQVFRSAREKIDGTSDHDDNA

1351 1400

Tc\_Brahma (1318) KDEDKSDSESVKMKIKLKNKKTSGRRKRAAKRYVSDDDDDDDD-------

Dvv\_Brahma (1288) DGPAVAQIKRPRGRPRKHKRPEEIEAEAAAQKAMEEASKLRAQAEAEELR

1401 1439

Tc\_Brahma (1361) ---------------------------------------

Dvv\_Brahma (1338) SKVEEASQRAKEEAKAREEAKAREEAEIENMEEIPTST-

**Supplemental Figure 2.** *Diabrotica virgifera* *virgifera* *hunchback* sequences

**Supplemental Figure 2A.** *Diabrotica virgifera* *virgifera* *cDNA* sequence containing *hunchback* open reading frame (underlined). dsRNA sequence is highlighted in grey. Accession No. KR152261

gttagatagtggtggtcacatgacattgttatcagtgattttaatacgtgtttttgaggaatgaaaataatagttggattatttctaatacagactttgattcttaccgtgaaatgagaggaggtgtttctgacgatatgacttcaacttgcgttcaaggaggaattagaccaattggacgatatcaaccaaacatgcttatggaaccatcgtctcctcaatctgcctggcagtttcacccagccatgccgaaacgagaacccgtcgatcatgatggcagaaatgactccggcttagcatctggaggtgaatttatttcatcttcaccaggaagtgacaatagtgaacacttcagcgcttcctattcatctccaaccagttgccatacagtaatttctactaatacttattatcccaccaatctaagaagaccttcacaggcgcagacgagtattccaacgcacatgatgtacaccggcgatcacaaccccttaactcccccgaattcggaacctatgatttcgcccaaaagcgtgttatcaagaaacaacgaaggtgaacatcaaactactctgacgccttgtgcgtctcctgaggatgcttctgttgatgctacagacagcgttaattgcgacggtgctttaaaaaaattacaagcgacttttgaaaaaaatgcttttagtgaaggttctggggatgacgataccaaatctgatggagaggcagaagaatacgacgaacaaggactaagagttccaaaagttaactctcatggaaaaattaaaactttcaagtgtaagcaatgtgattttgtggccattactaaactagtcttctgggaacataccaagttacatattaaagctgacaaactccttaaatgccccaagtgtccttttgtcaccgaatataagcaccatttagaatatcaccttagaaatcattatggttcaaaaccatttaaatgtaaccagtgtagttactcttgtgtaaacaaatcaatgcttaattcacatttaaaatctcactctaatatttaccaataccgctgttctgactgcagttatgccacaaaatattgtcattcgctgaaattgcatcttagaaaatactcgcacaaacctgctatggtactaaacccagatggaacaccaaatccgttgcccataatcgatgtttatggtacaaggagaggaccaaagatgaagtcagaacaaaaatcatctgaggaaatgtctccgaaacccgaacaagttctaccattcccatttaaccagtttctaccccaaatgcagttaccattcccaggatttccattatttggaggttttccaggtggcattccaaatcctttgttattgcaaaacttggaaaaactagcccgagaaaggcgtgaatccatgaactcttcagaacgtttttctcccgcacaatcagaacaaatggataccgatgcaggcgttcttgatctcagtaaaccagatgactcttcccagacaaaccgacgaaaagattcagcttacaaactttcaactggtgataattcttcagatgaagaagacgatgaggcaactacaacaatgttcggtaatgttgaagttgttgaaaataaagaactagaagatacttcatcggggaaacagacaccaactagtgctaaaaaggatgactactcgtgccaatactgtcagataaatttcggggaccccgttttgtatactatgcatatgggttaccacggatacaagaatccatttatttgcaacatgtgcggtgaggaatgtaatgataaagtgtctttcttcttgcacattgcacgaaatcctcattcttaaaaatatcaataagactgaattcaaggttagcatttttatatattatattcacactgaaacttttttaatattcaatatttggttgcgtaacatttacgcatatctatactttatttcacg

**Supplemental Figure 2B.** Translation of *hunchback* sequence from *Diabrotica virgifera virgifera* cDNA.

Mrggvsddmtstcvqggirpigryqpnmlmepsspqsawqfhpampkrepvdhdgrndsglasggefissspgsdnsehfsasyssptschtvistntyyptnlrrpsqaqtsipthmmytgdhnpltppnsepmispksvlsrnnegehqttltpcaspedasvdatdsvncdgalkklqatfeknafsegsgdddtksdgeaeeydeqglrvpkvnshgkiktfkckqcdfvaitklvfwehtklhikadkllkcpkcpfvteykhhleyhlrnhygskpfkcnqcsyscvnksmlnshlkshsniyqyrcsdcsyatkychslklhlrkyshkpamvlnpdgtpnplpiidvygtrrgpkmkseqksseemspkpeqvlpfpfnqflpqmqlpfpgfplfggfpggipnplllqnleklarerresmnsserfspaqseqmdtdagvldlskpddssqtnrrkdsayklstgdnssdeeddeatttmfgnvevvenkeledtssgkqtptsakkddyscqycqinfgdpvlytmhmgyhgyknpficnmcgeecndkvsfflhiarnphs\*

**Supplemental Figure 2C.** Alignment of *hunchback* amino acid sequences from *Diabrotica virgifera virgifera (Dvv)* (Accession number: KR152261) and *Tribolium castaneum (Tc)* (Accession Number: NP\_001038093.1)*.* Amino acid identities are highlighted in black and similarities are in grey.

1 50

Tc\_hunchback (1) ---MIDKDMNSACMRGGSVRTLNNYQQ--VMEPRSPHTAWQFGVSQIVKR

Dvv\_hunchback (1) MRGGVSDDMTSTCVQGG-IRPIGRYQPNMLMEPSSPQSAWQFHPAMPK-R

51 100

Tc\_hunchback (46) EPMDED-KNDSGVTSGSDFHSSSPSSDTSQDLQHSYQSPQ----------

Dvv\_hunchback (49) EPVDHDGRNDSGLASGGEFISSSPGSDNSEHFSASYSSPTSCHTVISTNT

101 150

Tc\_hunchback (85) -----TQPARFYSTPIVPHFAYN--HNPLTPPNSEPLVSPK---SEKEEK

Dvv\_hunchback (99) YYPTNLRRPSQAQTSIPTHMMYTGDHNPLTPPNSEPMISPKSVLSRNNEG

151 200

Tc\_hunchback (125) DMETTLTPCASPNRKPDDNQDHLRRLEMSLEKSGLFSSKTSEHSVDELSG

Dvv\_hunchback (149) EHQTTLTPCASPEDASVDATDSVNCDGALKKLQATFEKNAFSEGSGDDDT

201 250

Tc\_hunchback (175) KSDNDAEEYDEQSLRVPKVNSHGKIKTFKCKQCDFVAITKLEQWNHSKVH

Dvv\_hunchback (199) KSDGEAEEYDEQGLRVPKVNSHGKIKTFKCKQCDFVAITKLVFWEHTKLH

251 300

Tc\_hunchback (225) IREDKRLTCPKCPFITEYKHHLEYHLRNHAGSKPFQCNKCDYTCVNKSML

Dvv\_hunchback (249) IKADKLLKCPKCPFVTEYKHHLEYHLRNHYGSKPFKCNQCSYSCVNKSML

301 350

Tc\_hunchback (275) NSHMKSHSNVYRYSCRDCSYATKYCHSLKIHLRRYGHTPNVVLDEEGNPC

Dvv\_hunchback (299) NSHLKSHSNIYQYRCSDCSYATKYCHSLKLHLRKYSHKPAMVLNPDGTPN

351 400

Tc\_hunchback (325) PDIIIDVHGTRRGPKIKT--------QPKAEEAKPETLPFLNLQQQLPFP

Dvv\_hunchback (349) PLPIIDVYGTRRGPKMKSEQKSSEEMSPKPEQVLPFPFNQFLPQMQLPFP

401 450

Tc\_hunchback (367) GYPFFGGFPN-------AQLLQQLIRERQLAVGGSQ-----------EES

Dvv\_hunchback (399) GFPLFGGFPGGIPNPLLLQNLEKLARERRESMNSSERFSPAQSEQMDTDA

451 500

Tc\_hunchback (399) RVLDLSKPGCSYTGEQKSRRKGPAFKVDPTQVESEEEDEETSTTVFSNVE

Dvv\_hunchback (449) GVLDLSKP---DDSSQTNRRKDSAYKLSTGDNSSDEEDDEATTTMFGNVE

501 550

Tc\_hunchback (449) VVQEEAKKEESDSN--NNNNKEEGNSCQYCNIAFGDAVLYTIHMGYHGFH

Dvv\_hunchback (496) VVENKELEDTSSGKQTPTSAKKDDYSCQYCQINFGDPVLYTMHMGYHGYK

551 579

Tc\_hunchback (497) NPFTCNMCGVECSDKVSFFLHIARVSHS-

Dvv\_hunchback (546) NPFICNMCGEECNDKVSFFLHIARNPHS-