**A**

C.rolani.NR.TRI MVRAALSLLLLATLAVLVI--------AHERAEAEEPQHHRAKRQDDMAAVDDYPLDDVDMMQRIFRTPLKRQWCRSGMSFNPVLGTCTLSLAALRGRG------RSFRGV

14357X3.C.furvu M--GKLTILFLVAAALLSIQVMVQGDGAHERAKAEEPQHHHAKRQD---GTDGYPVDDVDMMQRIFRNPLKRQWCRVGYAYNPVLGRCTISLSRIKYPGLYEIYEETRRSQ

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**B**

>C.rolani.NR.TRINITY\_DN11383\_c0\_g1\_i1 Entry:1888.conotoxin.O2 len:1839 tpm:372.48

GTCAGACTGCCAGGATATATAAACCTGAGCCCCCATTCCTGGCCAACCGACACGCCTCCAGCTCCTCTCCCTCTCACTCTCCACCTCTGACTCCATCGCTGTCCTTCCAGAAGCTCTCTTGGCATCAGCCAGGGAAACACTCTTGGGTCAATATCTGGCTCTCTGTCAACGCCCGGCTGCGGCCCTCCGCGAGAAGCTAAGCTAACAAACAGCCTTGTTGCAATCATCGGTGCGTGGAGAAGACGGTAGACACTTTTCATTGACGTTCTTGACAGCCTTCTTCAAGGGGTCATCCGTACAACAGAGGTCTTGAGGGTCGAGGCTCTTTGCTTGGAGAACAAGTAGTAACAGGGCGTGCAGATCAGAGGTAAACGTTTGGGAGGCAGTTGTCGTGGGACGCACCCCTCCCGGAAGAAGTGGACGACCTGACGAGACAGTCTGTGAGTCATCTTCCGAAGGTCAGACACAGGCTCATCATGGTCCGAGCTGCTCTCTCCTTGCTGCTGCTGGCTACACTCGCCGTTCTCGTCATCGCGCATGAGCGAGCGGAAGCGGAAGAGCCACAGCATCACCGCGCGAAGCGACAGGACGACATGGCGGCGGTGGACGACTACCCTCTGGATGACGTGGACATGATGCAGCGTATTTTCCGCACCCCTCTCAAACGTCAGTGGTGTCGGTCTGGCATGTCCTTCAACCCCGTGCTGGGCACCTGCACGCTCTCTCTGGCGGCGTTGCGAGGGCGAGGCAGAAGTTTCCGTGGCGTCTGAGAGCCAGCAGAGGGCGCCAGTGATGACCCATACATGCGTGGTCCTGCCGACCGCTCTTGCCCAGTCTGCTGTGCTTGTTTTGTCATTCGGTCACTAGAACCTGTCACGTTTTGGTTTACTTCCCTCCACCCCTCCTCCCCTTCATCCTAGTCCCCTTCCACGCCCACCTCACCTACCACCTCTCCCACAAACCCCATTGATTTCCTCCTAGTGTGTGTCCAGTTGTCATCAATGTGTTAAAGCCAGGTCAACCCAGAGTTGTAGTCACGAAGGTACATTCATCCATGTGTTAAAGCAACGTGAATCTTTAGTTCAGTTCACGAAGGTACAGTCACTAATGGGTTAACGCGACTCGAATCCTGAATCTGTTTACAAAGATACGGCTATCAATGTGTTAAAGAAAAGTAAACCCTGATACAGTCACCTGAGTGTTTTAGCAATATGAATCCTTAGTTCTGCTCACGAAGGTACAGCAGTCAATGCGTTAAAGCAATATGAATTCTTACTCCTTTTCACGATGTTACTGTCATCCATGTGTTACAGCAAGATAACCCTTAGTCCTGTTCACGATGTTACTGTCATCAATGTGTTACAGCAAGATAAGCCTTTGATCTGTTCACGATGTTACAGTCATCAATGTGTTAAAACAATGTAAAACTTAGTCACGTTCAAAATGATAGGAGTCTTTAACATGTCAAAGTAGAACAAGTTCTGACCTATGTTCAGGATAACTGGGTCATTGAAGTGTCAAAACAAACAACACCCTAGGCTTTCTCCAAAATAACCTGCCCACTAAGGTGTCAAAGCAAAATAAACTACTAGCACTATTTACGTCGCCCAGTAAGATGTTGAAATAACTCTTAGTTCTCTCCAACCTCATGAATTACATTCACGATAGTGCAGTCGTCAAAGAGTTAAAGCTCAAATAAACTTTCGGCTTTCTTGCAGATAGTATTTGGGCTTGATATGACTTCACCAGTAGACACAATGTTGCCACTTCCCCCACCCCCACCCCTACACTATTGCTGATAGGAATTTCACAAAGGAATAAAACTGAAATGAGATACAT

>14357X3.C.furvus.TRINITY\_DN4643\_c0\_g1\_i1 Entry:1888.conotoxin.O2 len:598 tpm:10665.97

CACTCTCTGTCTCCCTGATTGCTGCCTTCAGTCGACCCGCCCTCGTCGCCGCGCAGACCTGGTAAGAAGTGAAGAACCTTTATCATGGGGAAACTGACAATACTGTTTCTTGTTGCTGCTGCACTGTTGTCGATCCAGGTCATGGTTCAAGGTGACGGAGCGCATGAGCGAGCGAAAGCGGAAGAGCCACAGCATCACCACGCGAAGCGACAGGACGGCACGGACGGCTACCCTGTGGATGACGTGGACATGATGCAGCGTATTTTCCGCAACCCTCTCAAACGTCAGTGGTGTCGGGTTGGCTATGCCTACAACCCCGTGCTGGGCAGGTGCACGATATCTCTGTCGAGGATCAAGTATCCTGGGTTATATGAAATATATGAAGAAACCAGAAGGAGCCAGTGATGACCCATACATGCTTGGTCCTGCCGACCACTCTTAACTTTCGGCTTTCTTACAGATAGTATTTCGGCTTGATATGACTTTACCATTAGACACATTGTTGCTACCGCCACCCCCCACCCCCAACCCTACACTATTGCTGATACGAATTTCACAAAAGAATAAAACTGAAATGAGATACATGAAAAAAAAAAAA

**C**

ventricosus\_f5e GTCAGACTGCCAGGATATATAAACCTCAGCCTCCACTCCTGGCCAACCGACACGCCTCCA

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e GCTCCTCTCCCTCTCTCTCTCCACCCCTGACTCCATCGCTCTCCTTCCAGAAGCTCTCTT

14357X3.C.furvu ------------CACTCTCTGTCTCCCTGATTGC-------------------------T

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ventricosus\_f5e GGCATCAGCCAGGGAAACACTCTTGGGTCAATATCTGGCTCTCTCTCAACGCCCGGCTGC

14357X3.C.furvu GCCTTCAGTC--------------------------GACCCGCCCTCGTCGCCGCGCAG-

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ventricosus\_f5e GTTTCTTCTCGAAAAGCTAACAGCCTTGTTGCTATCATAGGTCCGCGGAGAAGACGGTAG

14357X3.C.furvu ---ACCTGGTAAGAAGTGAAGAACCTT--TATCAT------------GGGGAAACTGACA

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ventricosus\_f5e GCACTTTTCATTGACGTTCTTGACAGCCTTAATCAACGGGTCATCCGTACAACAGAGGTC

14357X3.C.furvu ATACTGTTTCTTGTTGCTGCTG--------------------------------------

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ventricosus\_f5e TCGAGGGGCGAGGCTCTTTGGTTGGAGAACAAGTAGTAACAGGACGTGCGGATCAGAGGC

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e GAAAGTTTGGGACGCAGTTGTCGCGGGACGCACCCCTGCTGGAAGAATTGGACGACCTGA

14357X3.C.furvu ------------CACTGTTGTCG-------------------------------------

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ventricosus\_f5e CGAGACAGTCCGTGAGTCATCTTCCCAAGGTCAGACACCGGCTCATCATGGTCCGAGCTG

14357X3.C.furvu ----------------------ATCCAGG----------------TCATGGTTCAAGGT-

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ventricosus\_f5e CTCTCTCCTTGCTGCTGCTGGCTACACTCGCCGTTCTCGTCATCGCGAATGAGCGAGCGG

14357X3.C.furvu --------------------------------------GACGGAGCGCATGAGCGAGCGA

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ventricosus\_f5e AAGCGGAAGAGCCACAGCATCACCGCGCGAAGCGACAGGACGACATGGCGGCGGTGGACG

14357X3.C.furvu AAGCGGAAGAGCCACAGCATCACCACGCGAAGCGACAGGACGGCA---------CGGACG

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ventricosus\_f5e ACTACCCTCTGGATGACGTGGACATGATGCAGCGTATTTTCCGCACCCCTCTCAAACGTC

14357X3.C.furvu GCTACCCTGTGGATGACGTGGACATGATGCAGCGTATTTTCCGCAACCCTCTCAAACGTC

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ventricosus\_f5e AGTGGTGTCGGCCTGGCATGTCCTTCAACCCCGTGCTGGGCACCTGCACGCTGTCTCTGG

14357X3.C.furvu AGTGGTGTCGGGTTGGCTATGCCTACAACCCCGTGCTGGGCAGGTGCACGATATCTCTG-

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ventricosus\_f5e CGGCGCTGCGAGGGCGAGGCA--GAAGTTTCCGTGGCGTCTGAGAGCCAGCC-GAGGGCG

14357X3.C.furvu -------TCGAGGATCAAGTATCCTGGGTTATATGAAATATATGAAGAAACCAGAAGGAG

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ventricosus\_f5e CCAGTGATGACCCATACATGCTTGGTCCTGCCGACCGCTCTTGCCCAGTCCACTGTGCTT

14357X3.C.furvu CCAGTGATGACCCATACATGCTTGGTCCTGCCGACCACTCTT------------------

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*.\*\*\*\*\*

ventricosus\_f5e GTTTTGTCATTCGGTCACTAGAACCTGTCACGTTTTGGTTTACTTCCCTCCTCCCCCCCC

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e CCCCTTCATCCTAGTCCCCTTCCACGCCCACCTCACCTACCACCTCTCCCACAAACCCCC

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e CATTGATTTCGTCCTAGTGTATGTTCAGTTGTCATCAATGGGTTAAAGCCACGTCAACCT

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e GAGTTGTAGTCACGAAGGTACAGTCACCCATGTGTTAAAGCAACGTGAATCCTTAGTTCA

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e GTTCACGGAGGTACAGTCACTAATGGGTCAACGCGACCTGAATCCTGAATCTGTTCACAA

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e AGATACGGCTATCAATGCGTTAAAGAAAATAAACCCTGAGACAGTCACATGAGTGTTTTA

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e GCAATATGAATCCTTAGTTCTGCTCACGAAGGTTTCAGCAGTCAATGCGTTAAAAGCAAT

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e GTGAATTCTTACTCCTTTTCTCGATGTTACAGTCATCAATGTGTTACAGCAAGATAACCC

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e TAGTCCTGTTCACGATGTTACAGTCATCAATGTGTTACACAAGATAACCCTTTGATCTGT

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e TCACGATGTTACAGTCATCAATGTGTTAAAGAAATGTAAAGCTTAGTCAGGTTCAAAATG

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e ATAGGAGTCTTTAACATGTCAAAGTAGAACAAGTTCTGACCTATGTTCAGGACAACTAGG

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e TCATTGAAGTGTCAAAACAAAATACAACCCAGGCTTTCTTCAAAATAACCTGCCCACTAA

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e GGTTTCAAAGCAAACTAAGCTATTAGCTCTATTTACTTCGCTCTCTTCAACCTCATGAAT

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5e TACATCCACGAGTTAAAGCTCAAATAAACGTTCGGCTTTCTTACAGATAGTATTTCGGCT

14357X3.C.furvu --------------------------AACTTTCGGCTTTCTTACAGATAGTATTTCGGCT

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ventricosus\_f5e TGATATGACTTCACCAGTAGACACAATGTTGCCACTCCCCCCCCCCCCCTCCAACCCCCC

14357X3.C.furvu TGATATGACTTTACCATTAGACACATTGTTGCTACCGCC--------------ACCCCCC

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ventricosus\_f5e ACCCCCACCCCTACACTATTGCTGATACGAATTTCACAAAGGAATAAAACTGAAATGAGA

14357X3.C.furvu ACCCCCAACCCTACACTATTGCTGATACGAATTTCACAAAAGAATAAAACTGAAATGAGA

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ventricosus\_f5e TACAT-------------

14357X3.C.furvu TACATGAAAAAAAAAAAA

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**D**

Predicted based on boavistensis transcript

>SRR11807497.C.boavistensis.VG.TRINITY\_DN58\_c0\_g1\_i3 Entry:3024.conotoxin.O2 len:563 tpm:729.72

CATTCTTGTTCTTCTTTTCTATCTGCCTACCTCTCTCCCCGTGAGGAGGGTGAAGGTAAGCGACAGACGGTATAAATATTGGGGGAAAGCCGTCTCTCAAGCCATCTACACTCCGCCTGCTGACCCGTCGTCTACACTCTCTGTCTCCCTGATTGCTGCCTTCAGTCGACCCGCCCTCATCGCAGCGCAGACTTGGTAAGAAGTGAAGAACCTTTATCATGGAGAAACTGACAATACTGTTTCTTGTTGCTGCTGTACTGTTGTCGACCCAGGTCATGGTTCAAGGTGACGGAGATCAACCTGCAGATCGGGATGCAGTGCCAAGAGGCGGTACCTCATCTGGAACAAGTGGAAAGCTCATGAAAGCTCTACGTCAGTCTGATTGTCCATGGAACCCTTGGTGTGGCTGATCAGAATCAACGACTGCTATGACAGCCGACAGTGCCGCACTCGAATTACCCTACAGTGGTTTGATTGATCCAGAACAATGATGTTTTGAAAACCGTATTCGTTGCCGCGGCCATTTTTGTCGTGTTGTAATTAAATAAAGCGATGACAGTCTC

**E**

ventricosus\_f5t TCTTGTTCTTCTTTTCTATCTGCCCACCTCTCTCCCCGTGAGGAGGGTGAAGGTTAGTGA

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5t CAGACGGTATAAATATTGGGGGAAAGCCGTCTCTCAAGCCATCTACACTCCGCCTGCTGA

14357X3.C.furvu ------------------------------------------------------------

ventricosus\_f5t CCCGTCGTCTACACTCTCTGTCTCCCTGATTGCTGCCTTCAGTCGACCCGCCCTCATCGC

14357X3.C.furvu -----------CACTCTCTGTCTCCCTGATTGCTGCCTTCAGTCGACCCGCCCTCGTCGC

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ventricosus\_f5t AGCGCAGACTTGGTAAGAAGTGAAGAACTGTTATCATGGAGAAACTGACAATACTGTTTC

14357X3.C.furvu CGCGCAGACCTGGTAAGAAGTGAAGAACCTTTATCATGGGGAAACTGACAATACTGTTTC

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ventricosus\_f5t TTGTTGCTGCTGTACTGTTGTCGACCCTGGTCATGGTTCAAGGTGACGGAG---ATCAAC

14357X3.C.furvu TTGTTGCTGCTGCACTGTTGTCGATCCAGGTCATGGTTCAAGGTGACGGAGCGCATGAGC

\*\*\*\*\*\*\*\*\*\*\*\*.\*\*\*\*\*\*\*\*\*\*\*.\*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\* \*.\*

ventricosus\_f5t CTGCA-----GAACGTGATGCAGTGCCAAGAGACGATAACTCAGG-TGGAACGAGTGGAA

14357X3.C.furvu GAGCGAAAGCGGAAGAGCCACAGCATCACCACGCGAAGCGACAGGACGGCACGGACGGCT

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ventricosus\_f5t AGTTCATGAATG------------------------------------------------

14357X3.C.furvu ACCCTGTGGATGACGTGGACATGATGCAGCGTATTTTCCGCAACCCTCTCAAACGTCAGT

\* ....\*\*.\*\*\*

ventricosus\_f5t -------------------------CTCTACGTGGGGATTGTCCGTGGAATCCTTGGTGT

14357X3.C.furvu GGTGTCGGGTTGGCTATGCCTACAACCCCGTGCTGGGCAGGTGCACGATATCTCTGTCGA

\*.\*...\*. \*\*\* \*\* \*..\*. \*\*\*..\*\* .\*

ventricosus\_f5t GGCTGA------TCGGAATCTACGACTGCTATGA------------CAGCCGACAGTGCC

14357X3.C.furvu GGATCAAGTATCCTGGGTTATATGAAATATATGAAGAAACCAGAAGGAGCCAGTGATGAC

\*\* \* \* ..\*\*. \* \*\*.\*\* \*\*\*\*\* \*\*\*\*.....\*\* \*

ventricosus\_f5t GCA-------------------------------CTCGAATTACCCTACAGTGGTTTGAT

14357X3.C.furvu CCATACATGCTTGGTCCTGCCGACCACTCTTAACTTTCGGCTTTCTTACAGATAGTATTT

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ventricosus\_f5t TGATCCAGAACAATGATGTTTTGAAAACCGTATTCGTTGCCGCGGC--------------

14357X3.C.furvu CGGCTTGATATGACTTTACCATTAGACACATTGTTGCTACCGCCACCCCCCACCCCCAAC

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ventricosus\_f5t ----CATTTTTGTCG-----------------------TGTTGTAATTAAATAAAGCGAT

14357X3.C.furvu CCTACACTATTGCTGATACGAATTTCACAAAAGAATAAAACTGAAATGAGATACATGAAA

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ventricosus\_f5t GACAGTCTC

14357X3.C.furvu AAAAAAAAA

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