

Figure S14. Genomic alignment of chicken AvBD11 gene and painted turtle ENSCPBG00000020216 gene. This genomic alignment has been imported from Ensembl (www.ensembl.org) and further formatted to identify exons, start/stop codons and protein-coding regions. Exons identified in Ensembl database are highlighted in blue (exon 1), in green (exon 2) and in yellow (exon 3). Start and stop codons are highlighted in red and black, respectively. Protein-coding regions are represented in bold. Conserved nucleotides are represented with an asterisk. Note that the signal peptide, the N-terminal β -defensin domain and the C-terminal β -defensin domain of chicken AvBD11 are encoded by exons 1, 2 and 3, respectively.

CLUSTAL W (1.81) multiple sequence alignment

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chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 TCAGACAAACTGTCTTGTGCTTTGGGGTCTTTGTGTACACCCCTAATAGGGGTCCACG
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 GGGTCTCAGCAGGAGGAAGATCGTGAGACATGGACTGATCCTGCAGCACAACTGGGAATC
chrysemys_picta_bellii/1-2640 .....GGGCCGATATCGCAGCACTTCTCAGACTC
                                     ** * ** * ** * ** * ** *

gallus_gallus/1-2640 CC-ATTCTTCCTGTAGGTCTCGGCTTGCCAGAGACACCTCACGTTGTGTTGGCTACCAT
chrysemys_picta_bellii/1-2640 CCCGTTCCCCCTGCAGGGCTCAGCCTGCCTGCAGACACCTGAGATGTATCAGCAACAAT
                                     ** *** **** * ** * ** * ** * ** * ** * ** * ** *

gallus_gallus/1-2640 GGGTACTGCATCCGTTCCAAAGTCTGCCCCAAACCATTGCTGCATTGGAACATGCTCT
chrysemys_picta_bellii/1-2640 GGCTCTGCCACCA---AACACTCTGCCCTGGAACACTGTTCTGAATTGGAACCTGCTCG
                                     ** **** * * * ** * ** * * ** * ** * ** *

gallus_gallus/1-2640 TGGCGTCAGAAAACCTGCTGCGTAGGTATGT-GTGGGAACCTGCCAG-GCAGGCAATG
chrysemys_picta_bellii/1-2640 CACGGTCGTCGCACCTGCTGTAAAGGTAGGTGCTGAGGATCCTGCTTGGAGCTGATGCAA
                                     *** ***** ** * ** * * ** * ** * ** *

gallus_gallus/1-2640 TCTGGAGAGGAGAATACTGAAG--TCAGCAAACGATCTCTTTATCTC---ATCTCCAAA
chrysemys_picta_bellii/1-2640 TCTGCAG-GGGGAACATTGTAGCATCAGGAGACAAATTTGTTGCTCTCTTTGCTCCAAA
                                     **** * ** * ** * ** * ** * ** * ** * ** * ** *

gallus_gallus/1-2640 CAGTCCAAGACCTCTCCTTTTCGTCTACACAGATGGATCTGGCAGTCCCTGTGCTAATGGC
chrysemys_picta_bellii/1-2640 CTTCTTAAATCCTCCTTCTTTGT-GAAAAAGATAGATCTGC.....
                                     * ** **** ** * * ** * ** * ** *

gallus_gallus/1-2640 AGCACGGAGCCCCAAGACATAGCTGCCATGTACGTTAGCATAAAGCCCAGTGTTCTGTT
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 TCCTACAGAGCAGCAGTTTGGTGAAAGAACACAAAAATTGTGGCCCCATAGAGTATGCT
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 TTCATTGATGTATATTCCCAGTATCCTCTGTCTACTGGAGGACTGCTGGGTGCATCCACG
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 ATGATATGTTTAACAGGCACCAAGTTGACTTCCTTCCTGTAAACCCATCCAGTCCCTTTATG
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 GACCTGCTTCCTTTTGGAGCTCCTCAACAATCAATTGATGTCTTTATATCCATACATGCT
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 TAATAGCCAGGTGTGCTAATCTGACCCAGAGTTTATCCAGCACCTGTATCTGACCTCAG
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 CCAGAAGCAGATGCTTCTACACAGTCAGTCTGTGTGTGTGAAATGGATATCATGAACCTC
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 ACAACAATATAATTACAATTTCTCAGATATTCTCTTGGCTTGCATGAATTGGCAGCTTTT
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 AGACCTAGACATCCTTGTGTTTTAAAGTCTCTACTGGATTTTTTCCCCCTGAAATTGGG
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 TACATCTTCCCTATGTTTGAACCACCTCTCTCATTACCTAATTCTGCGTTGCAGTTGA
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 AACGAATAGTCCTTGTGCAGCCATCTTCATAACTTCATCATACCCCTCCTTCAGTTTCC
chrysemys_picta_bellii/1-2640 .....

gallus_gallus/1-2640 CCTTCAAGGTGATATATCACAACTCCTCCTTACAGAAGTGCTCTGAATATCCCCACA
chrysemys_picta_bellii/1-2640 .....

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| | |
|-------------------------------|--|
| gallus_gallus/1-2640 | GTCTTCTTTATGCCTTTTGCTTTTGAGGACTACGAACCAGAACTCCAATACTCTCTGTA |
| chrysemys_picta_bellii/1-2640 | |
| | |
| gallus_gallus/1-2640 | TAGGTGTGCAGCAGTGAGTCAGATGGTGGTGTAATTATGTTTTGTGTTTAACTCAATC |
| chrysemys_picta_bellii/1-2640 | |
| | |
| gallus_gallus/1-2640 | CTTCCATTCCAGACACTACATCAGACTTCCATACTTGTCAGACAAGGGGGGCCATTGC |
| chrysemys_picta_bellii/1-2640 |CAGGTATTTCTCCAGGCTCCCCTTCCTGTGCAGATAATGGGGGTGACTGC |
| | *** |
| | |
| gallus_gallus/1-2640 | GTATCTCCAAAAATCAGATGTCTGGAAGAACAGCTGGGACTTTGCCCTCTAAAAAGATGG |
| chrysemys_picta_bellii/1-2640 | ATACCCCGGACGCAGACTGTCCCAAGACCTCTCTGGAGCCTGCTCGCGCGGAATGTGG |
| | ** |
| | |
| gallus_gallus/1-2640 | ACGTGCTGCAAAGAAATAAATGAAGACCTTGCAAGATTGCAGAAAGCC-ACAGAAGTGC |
| chrysemys_picta_bellii/1-2640 | AAATGCTGTAAACTAATCCCATAAAGATCTCACAGCACTGCACAAATCCAAAAGGGATGC |
| | * |
| | |
| gallus_gallus/1-2640 | -----ACAGTCAAGAAAACAAACAAGCTTCTTGCTAGAGTTGTAGAGAAGCTGCCAGA |
| chrysemys_picta_bellii/1-2640 | CTGAAAACATTAGGAAATGCATGTTACTTTCCTTTTCA---TATAGAGTAGCTGTTAA |
| | *** |
| | |
| gallus_gallus/1-2640 | CTTCTCAACATACGAAGTCTGCAATTCGTTAGAGGCGACGTGCTTTTTTAATCCACACA |
| chrysemys_picta_bellii/1-2640 | CTGTCT-----TATTAATAATATGATTTATCTGAAGAGACATGCGTCTCC-ATCTGTAAA |
| | ** |
| | |
| gallus_gallus/1-2640 | ACAAAGGCAATAAACATTAAATAAACAGTGCAACAGCCCATATATACACAGAGAGAGGC |
| chrysemys_picta_bellii/1-2640 | ATTAAACAATTAATACTAAATAAAGCAAAAAAAAAATCAAATATTAAATAAAGGGAGAA |
| | * |
| | |
| gallus_gallus/1-2640 | AGAAGGTCTCTGTCTCACACACGCACATGTAGAAATGCACAGAAACACAGCTGTTAAACC |
| chrysemys_picta_bellii/1-2640 | AGTGAATTTCTCTCTC..... |
| | ** |
| | |
| gallus_gallus/1-2640 | CTTGGAACCACATCCCCTCCCACTCCAACTTCACCTCCCTCTCTTTCTGTCCCATCG |
| chrysemys_picta_bellii/1-2640 | |