**Exon1**

10 20 30 40 50

....|....|....|....|....|....|....|....|....|....|....|....

Human\_Exon1 ACTTCCCAAGGCGACTTCCTGTCTCTCCACTTTCTTTCCCTCTCCGTTTTGGTGGGCTG

JF1\_Exon1 --------------------------------------------------GATGGTCTG

Rat\_Exon1 --------------------------------------------------GGTGGTCTG

**Exon2**

10 20 30 40 50 60 70 80 90 100

....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

Human\_Exon2 ------GTTGAAGATGAAATCCACTGAGGAGGGAAGTCCAGCACCCTGTGTGCCAGTCCAG------------AACTGGCCCA--TCTGTAGACCCCCTG

JF1\_Exon2 TTCCAGGTTGAAGATGAATTGTGTCCAGGAAAGAG--CTGGGACTGTAGCACTCAGCCCCG-------------CCCGGCATA------GAGGCCCTGTG

Rat\_Exon2 TTTCAGGTTGAAGATGAAACGTATCCAGGAAAGAG--CTGGGACTGTAGCACTCAGCCCAGTGGCTGAGTCCAGCCCAGCACAGGCCCAGAGGCCCTGCA

110 120 130 140 150 160 170 180 190 200

....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

Human\_Exon2 AAAATC-----ATATG---GGCTTGGATTTGGATATTCTCAAC--AGAAAGGGTTAAAGGCTGATGGTACCTAAAGCCTGGTACTTGAATTTTGATCAAG

JF1\_Exon2 AAAACCCCAGGATATC--TAAAGTGGGCTTGGACATTCTCTCTCAAGGAAGGTTTAGAGGCTGATGGGAC-TATATATAAATGCAG--------------

Rat\_Exon2 CAACCCCCAGAATATCTCTAAAGTGGGCTTGGATATTCTC-----AAGAAGGTTTAAAGGCTGATGGCAC-TGTA----AATGCAG--------------

210 220 230

....|....|....|....|....|....|

Human\_Exon2 ATAAGCTGCCTTAAGTTCTCTTCATTACAC

JF1\_Exon2 ------------------------------

Rat\_Exon2 ------------------------------

**Exon3**

10 20 30 40 50 60 70

....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....

Human\_Exon3 AAATGATCCTAGATAATTGATAGATCCTGTGGTTCAACT-GGATTTCTAGATAGAAGCTGGATTCATGTGATGCCAGAG

JF1\_Exon3 --ATGATGGTAAGCAGTT----GCTCTGGTATTTCAATTTGGATTCCTAGATT-AAACTGGATTCATTTGATAA-----

Rat\_Exon3 ATGAGATGGCAGCCCGTTT---GCTCTGGTATTTCCACTTGGATTCCTAGGTT-AAGCTGGATGCATTTGTTAACAG--

**Exon4**

10 20 30 40 50 60 70 80 90 100

....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|....|

Human\_Exon4 ---------------------------------GAGTAAAATTTCAAGAGACTGAAACCAGATCTGAGTT-TCGCTGTTCCAGTCTGGACCTCTTTGGTG

JF1\_Exon4 CAGAAATGAAGGATGAAATACAAGAAGTACGAATATTGAACATTCAGGAGAGAACATCAGGTTGATAGCAATCCCATTTCCTGTCTGGACCATC---ATG

Rat\_Exon4 ---AAATGAGGGGTAAAACCCAAGAAGTACAAATGTTCAACAGTCAGGAGAGAACACCAGGTTGACAGCA-TCACATTTCCTGTCTGGACCTTC---ATG

110 120 130 140 150

....|....|....|....|....|....|....|....|....|....|

Human\_Exon4 CTGTAAATCC-TGGATATACTGTAGATGAGTACTGCGTTTTTCTTTTATG

JF1\_Exon4 CTGTAAAACCATGGTTGTATGAAAAATGATAGTTGCATTGTTTAATG---

Rat\_Exon4 CTATAAACC---AGTTGTATGAAAAA-AATGATCGCATGGTTTAATG---

**S7 Fig. Alignments of human, mouse (JF1), and rat sequences of exons 1 to 4 of the *Ccnb1ip1* gene.** Sequences for each exon were aligned using BioEdit (http://www.mbio.ncsu.edu/bioedit/bioedit.html). Conserved sequences are highlighted.