

**Exon 13** AAGCCAACGCCAAGGCCAAG

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1  gtgagctcgg cagacagggg agggaggggc ccaagagca ggctgcccc
51  gcctgatgca agaagccatt ctcatctgca gtctggggct cagagtcatt
101 gatcccccca ttttggtcac actgaaagct caggctctgc tctggtggag
151 ttctgtgagg ggcagcggtc tctttgtatg aagtgggtgcc tctatagagt
201 aacagaagcc cagagagcag gctggcccgc agcgtttata gggccagtgg
251 gtagataggg ctgaagggag ggagtcata agatgggtacc accagggaaa
301 atcagccagg catcacttga tccagaagag gagcatcctc ttttgtatat
351 tcgatgacaa ataaaccgta agatcagcta ccaagtctgc aagttgacag
401 gctacatggc aaagaccagg tctttgtggg taatggggtc ctttgactcc
451 tctacttggg cccagtaaca gacaccgcat gcgtggagcc cctgtatcgg
501 gagctatagc tggaaagttgt agaaaagggc taaatggccg tctctccctt
551 tgggcgattc agagccgcat gactgctgcc acagagcaca aacacaagca
601 taccaggcag aaagagcctg cgagacaggg cttgcttgtc gatagcaaac
651 ggtttgctga gtatcttctc tgaaaccaac agGAACGCCT TGTGTCCATT
701 AGCTGTTGAT CTGAACCCTA ACCCTATGAA ATAATGTTAC AATTGCACT
751 TAAACTGAGG AAGCTGAACC TTTGGGCAAT TAAGTAGCAA CAACCGT GAA
801 GCTGGT SAGT TGTAAGGACT GAACTAAGTA GAGCATGTAG TTTCTGTTAA
851 GTCAGAGACT GGAAGAAAGT CCAGATCTTT TGATTCATTG TGAGTCACTT
901 G AGGGTCTG GTCCTCACCT CCTTGCCCTA TGAAATAATA CAGAGTTGGA
951 CTTGGGAAGG TTAACGTGTC CAGTTTTCTA CTTTCACCCC GTGGCCAGG
ATGACCAGACACCGC Exon 14

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authentic splice donor

cryptic acceptor 681

cryptic donor 805

cryptic acceptor 903

**Figure S2** Sequence of exon 13, intron 13 and exon 14 of gene *Ank1*. Original exon 13 and exon 14 are highlighted in yellow, and the cryptic exons within intron 13 are shown in capital letters. The *hema6* mutation, *Ank1* IVS13+209T>C, is indicated by a bold red font; and donor and acceptor splice sites that were utilized to generate mutant transcripts are indicated by blue and red boxes, respectively. Splice isoform 1 was defined by authentic splice donor and cryptic acceptor 681; splice isoform 2 contained two cryptic exons: one was defined by authentic donor site and cryptic acceptor 681, and the other by cryptic donor 805 and cryptic acceptor 903. The novel exonic splicing enhancer motif is highlighted in green, and the potential exonic splicing silencer element is highlighted in grey.