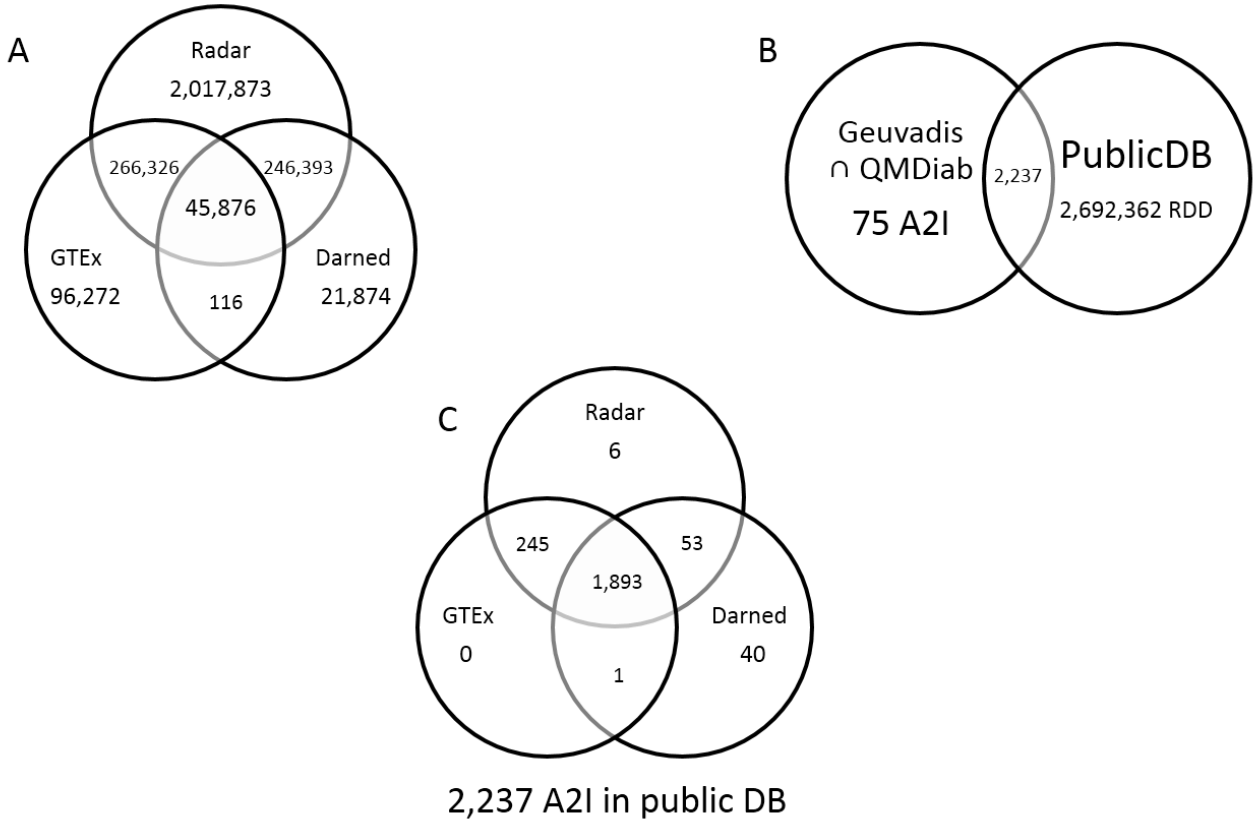
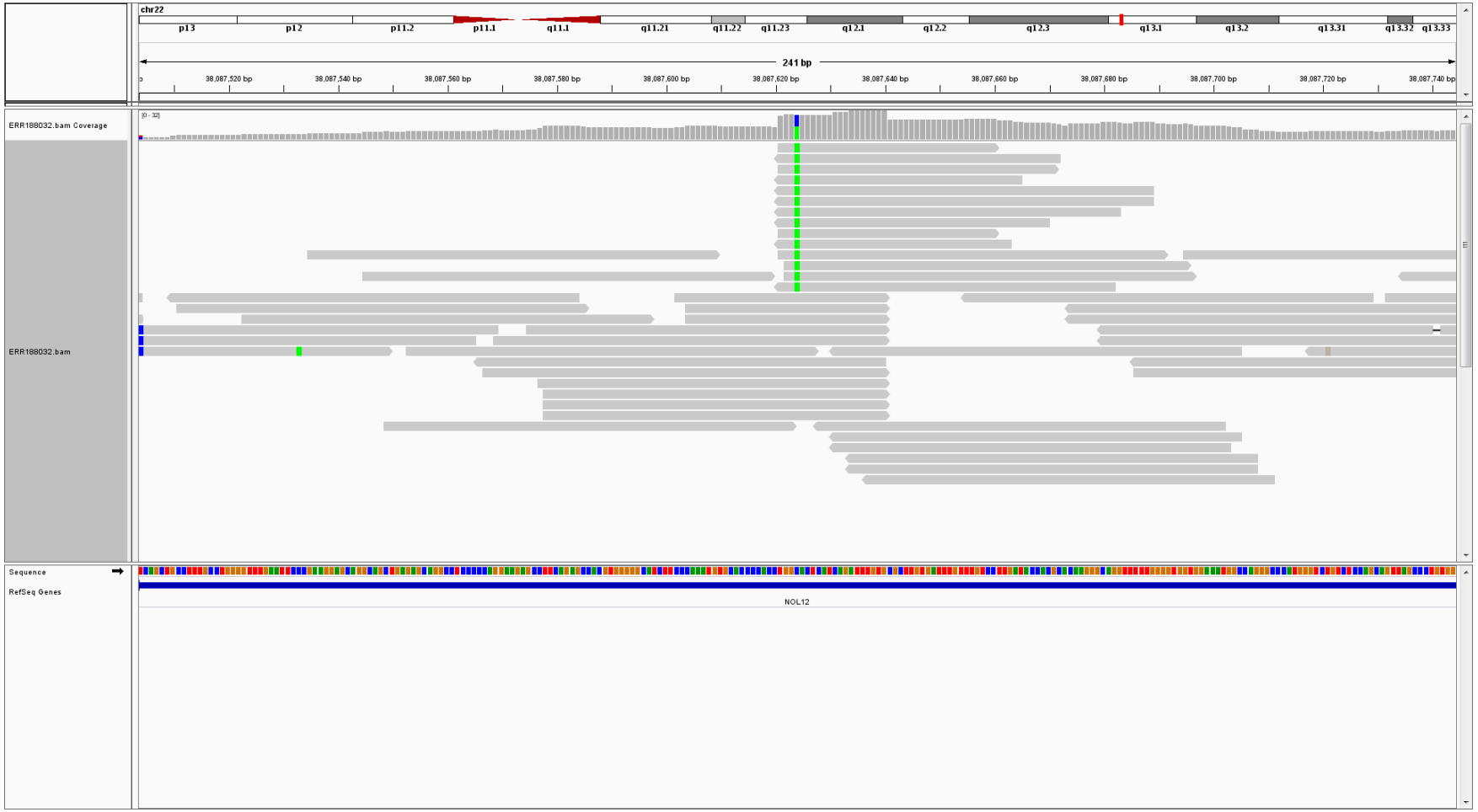


Fig S1. Distribution of detected RDD in public databases.


chr3
p26.2 p25.3 p24.3 p24.2 p23 p22.2 p21.33 p21.2 p14.3 p14.1 p13 p12.3 p12.2 p11.2 q11.1 q12.1 q13.11 q13.2 q13.32 q21.2 q22.1 q22.3 q24 q25.1 q25.31 q26.1 q26.2 q26.32 q27.1 q28 q29
465 bp
143,709,800 bp
143,709,900 bp
143,710,000 bp
143,710,100 bp
143,710,
ERR188423.bam Coverage
0 - 65
ERR188423.bam
Sequence
RefSeq Genes
C3orf58


chr3
p26.2 p25.3 p24.3 p24.2 p23 p22.2 p21.33 p21.2 p14.3 p14.1 p13 p12.3 p12.2 p11.2 q11.1 q12.1 q13.11 q13.2 q13.32 q21.2 q22.1 q22.3 q24 q25.1 q25.31 q26.1 q26.2 q26.32 q27.1 q28 q29
465 bp
143,709,800 bp
143,709,900 bp
143,710,000 bp
143,710,100 bp
QMDiab-241.bam Coverage
[0 - 22]
QMDiab-241.bam
Sequence
RefSeq Genes
C3orf58


chr22
p13
p12
p11.2
p11.1
q11.1
q11.21
q11.22
q11.23
q12.1
q12.2
q12.3
q13.1
q13.2
q13.31
q13.32
q13.33
241 bp
38,087,520 bp
38,087,540 bp
38,087,560 bp
38,087,580 bp
38,087,600 bp
38,087,620 bp
38,087,640 bp
38,087,660 bp
38,087,680 bp
38,087,700 bp
38,087,720 bp
38,087,740 bp
ERR188032.bam Coverage
[0 - 32]
ERR188032.bam
Sequence
RefSeq Genes
NOL12

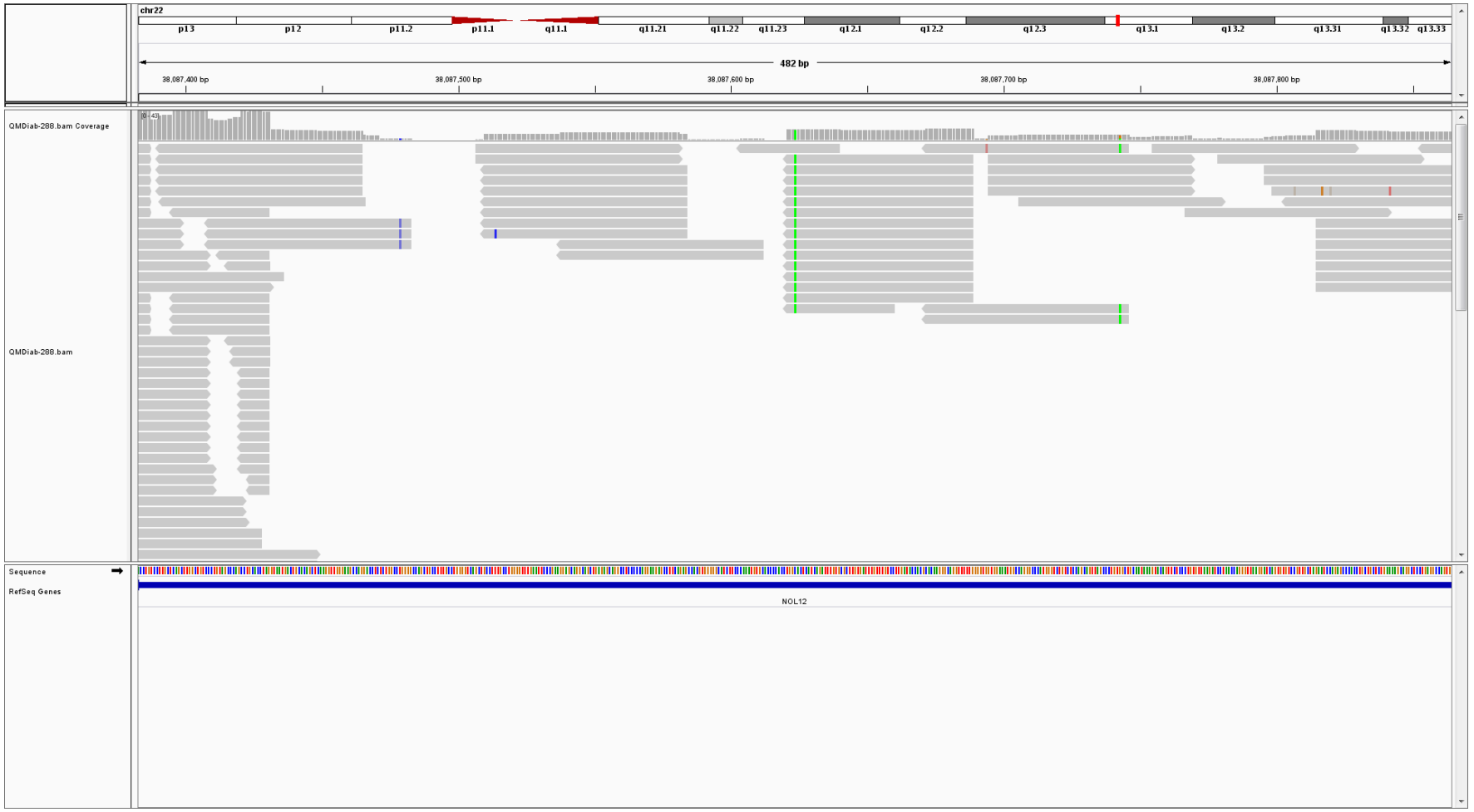


Fig S2. Integrative genomic viewer screenshot of four nonA2I sites showing the absence of reads spanning the non-A2I sites. All the reads start (first 10 bp) or end (last 10 bp) at these non-A2I sites.

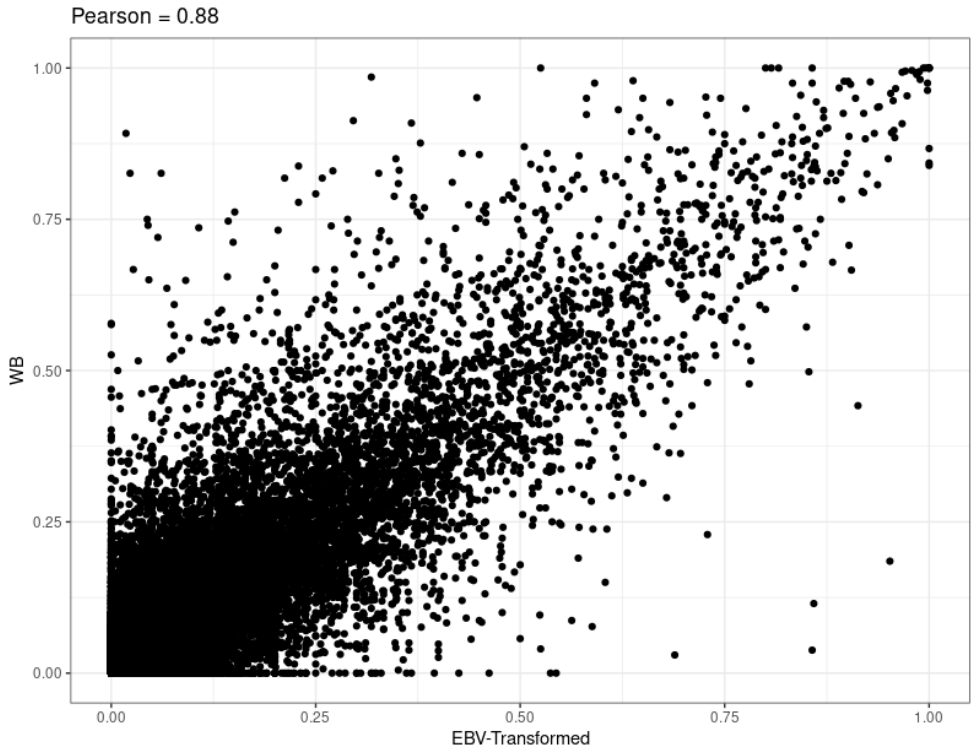
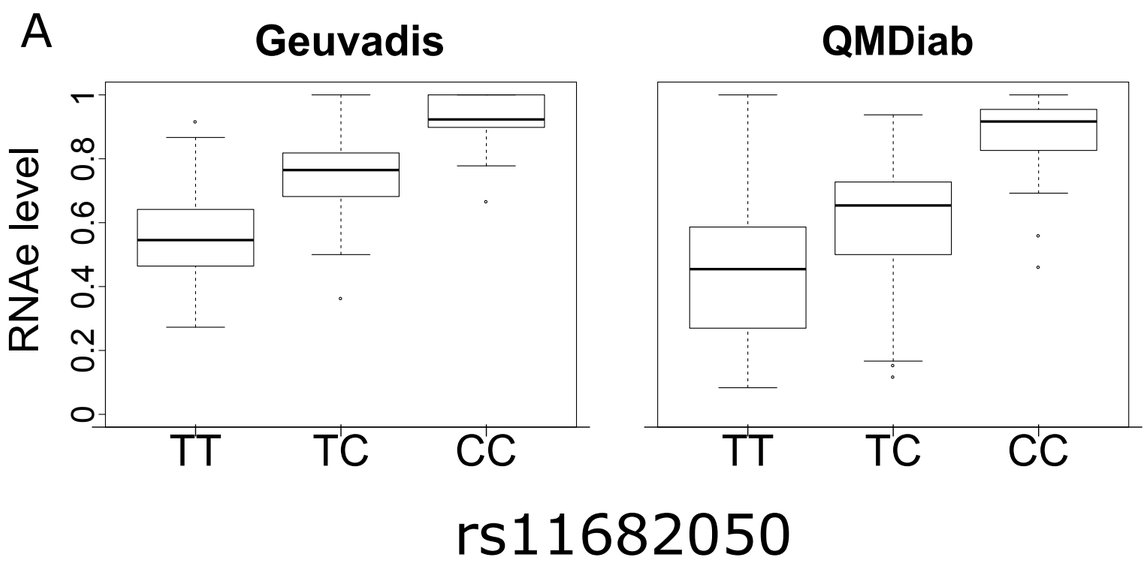
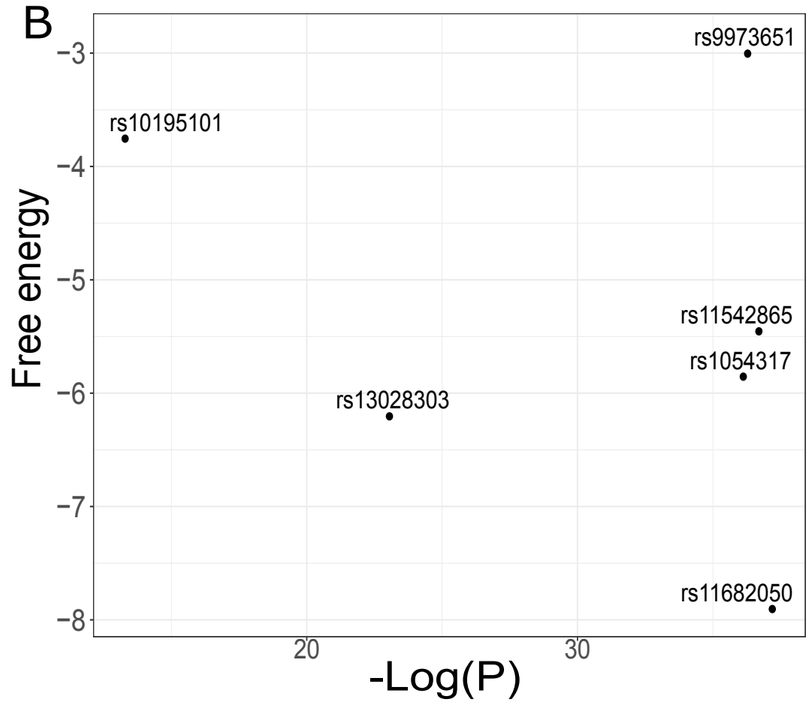
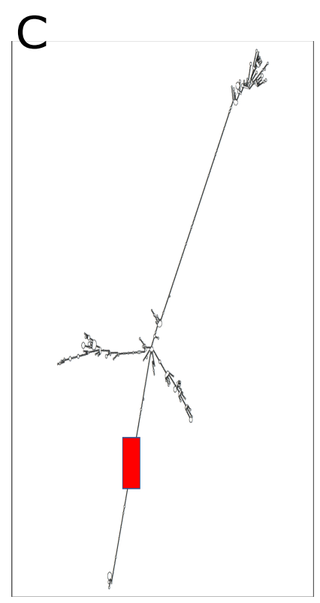


Fig S3. Correlation of RNAe level between EBV-transformed lymphocyte and whole blood cells in the multi-tissue GTEx RNA-sea data

UGGT1 RNAe site 2:128950992 associated with rs11682050







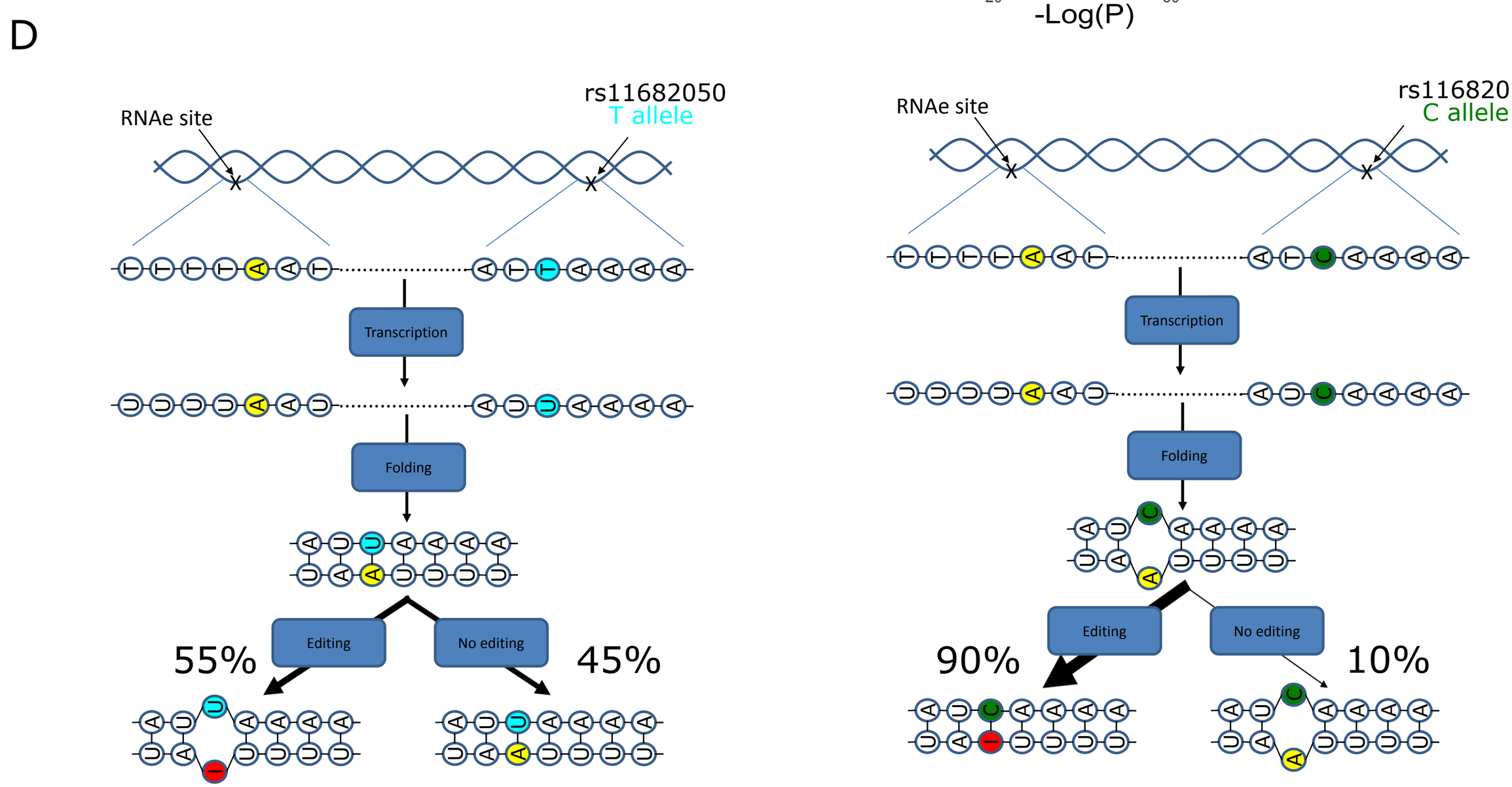
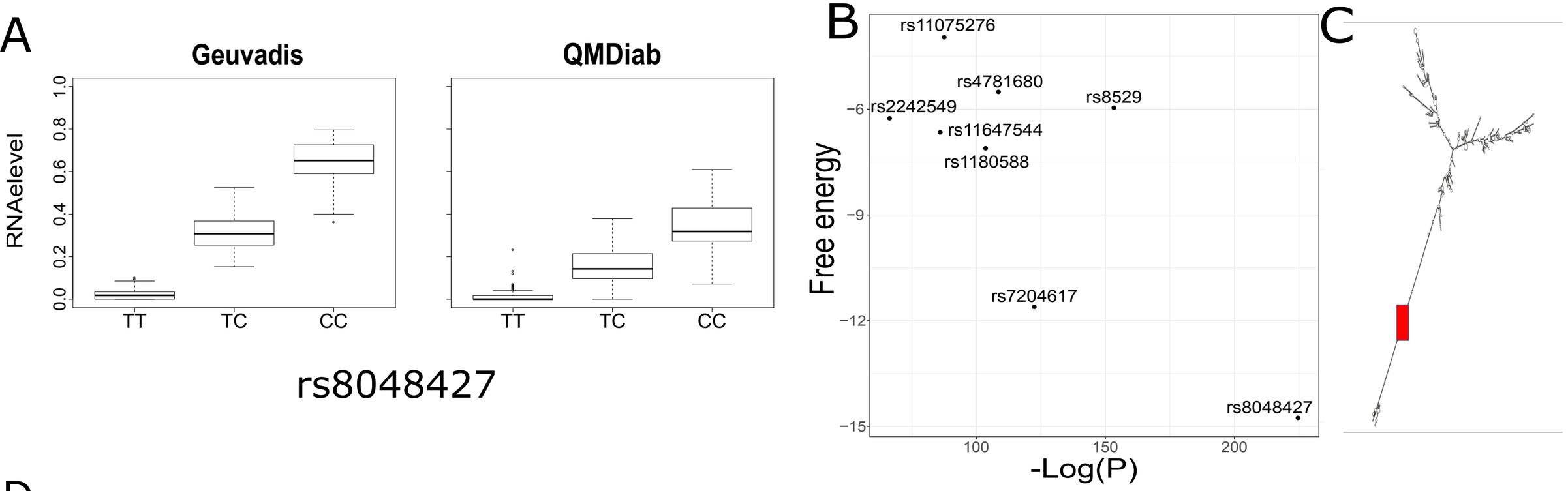


Fig S4. The effect of the potential causal RNAe -QTL on the RNA secondary structure. In this case, the potential causal RNAe -QTL localized on the direct opposite of the RNAe site within the hairpin. A, B, C and D. please refer to Fig 3.

NDE1 RNAe site 16:15795035
associated with rs8048427



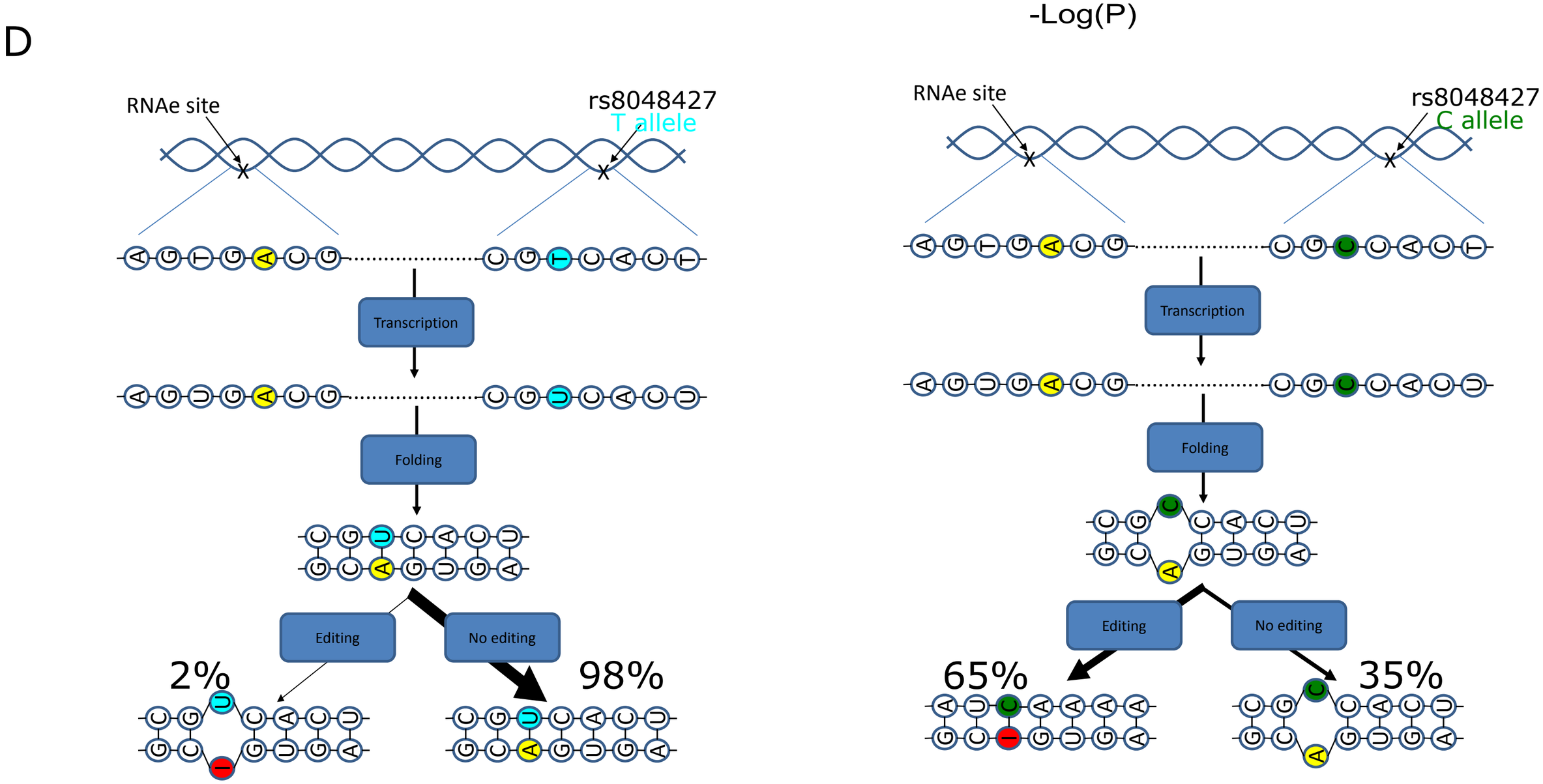
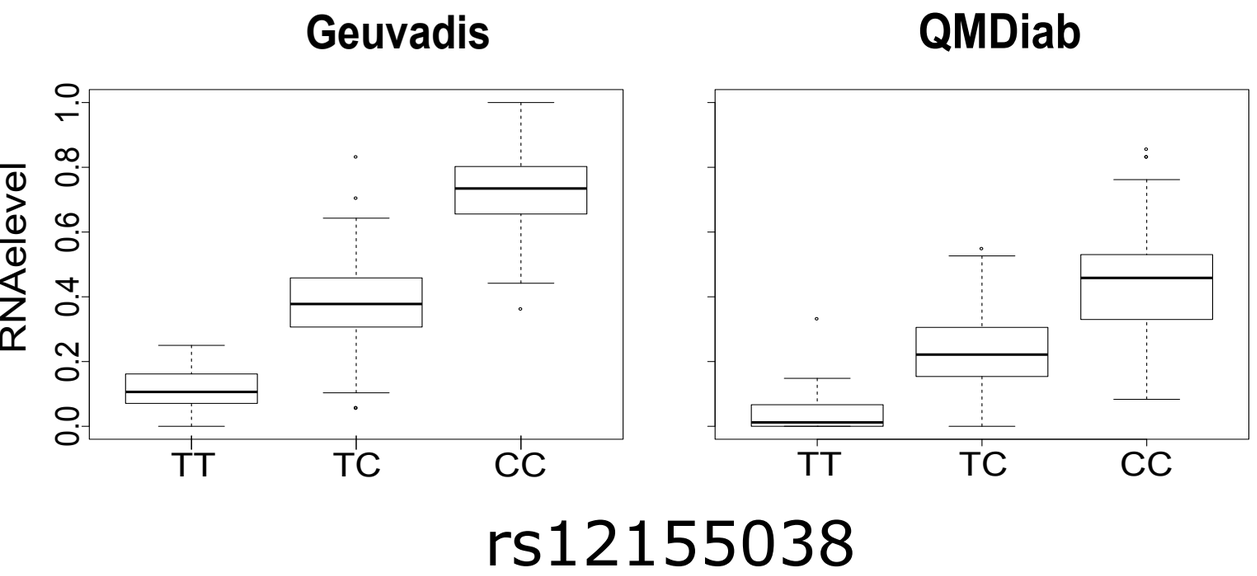


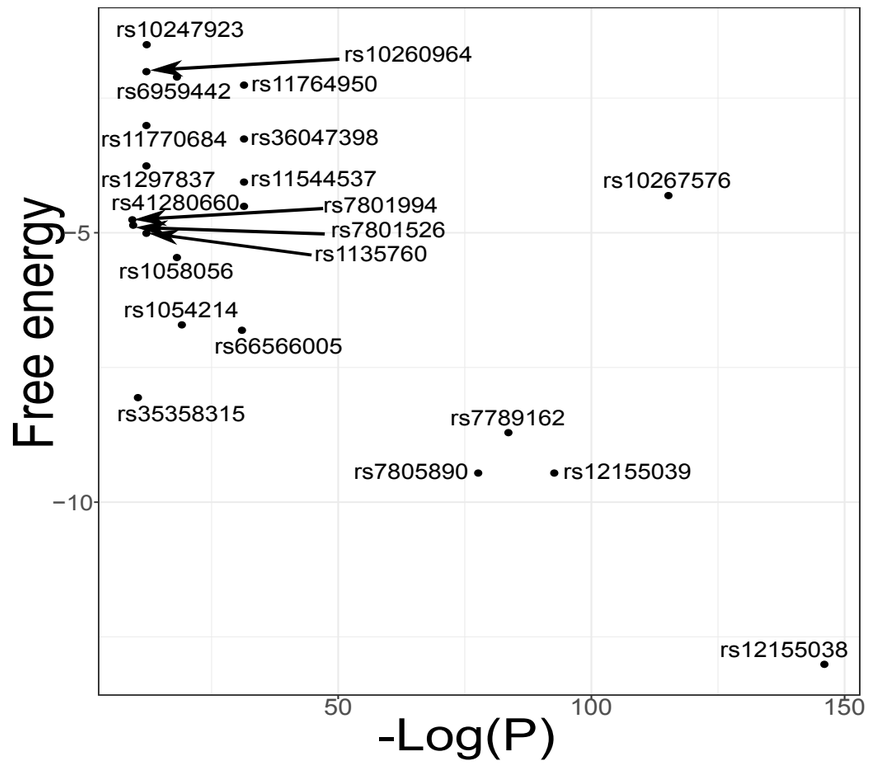
Fig S5. The effect of the potential causal RNAe -QTL on the RNA secondary structure. In this case, the potential causal RNAe -QTL localized on the direct opposite of the RNAe site within the hairpin. A, B, C and D. please refer to Fig 3.

H2AFV RNAe site 7:44872421
associated with rs12155038

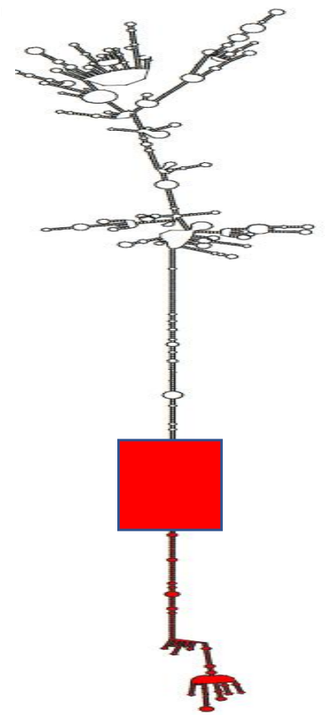
A



B



C



D

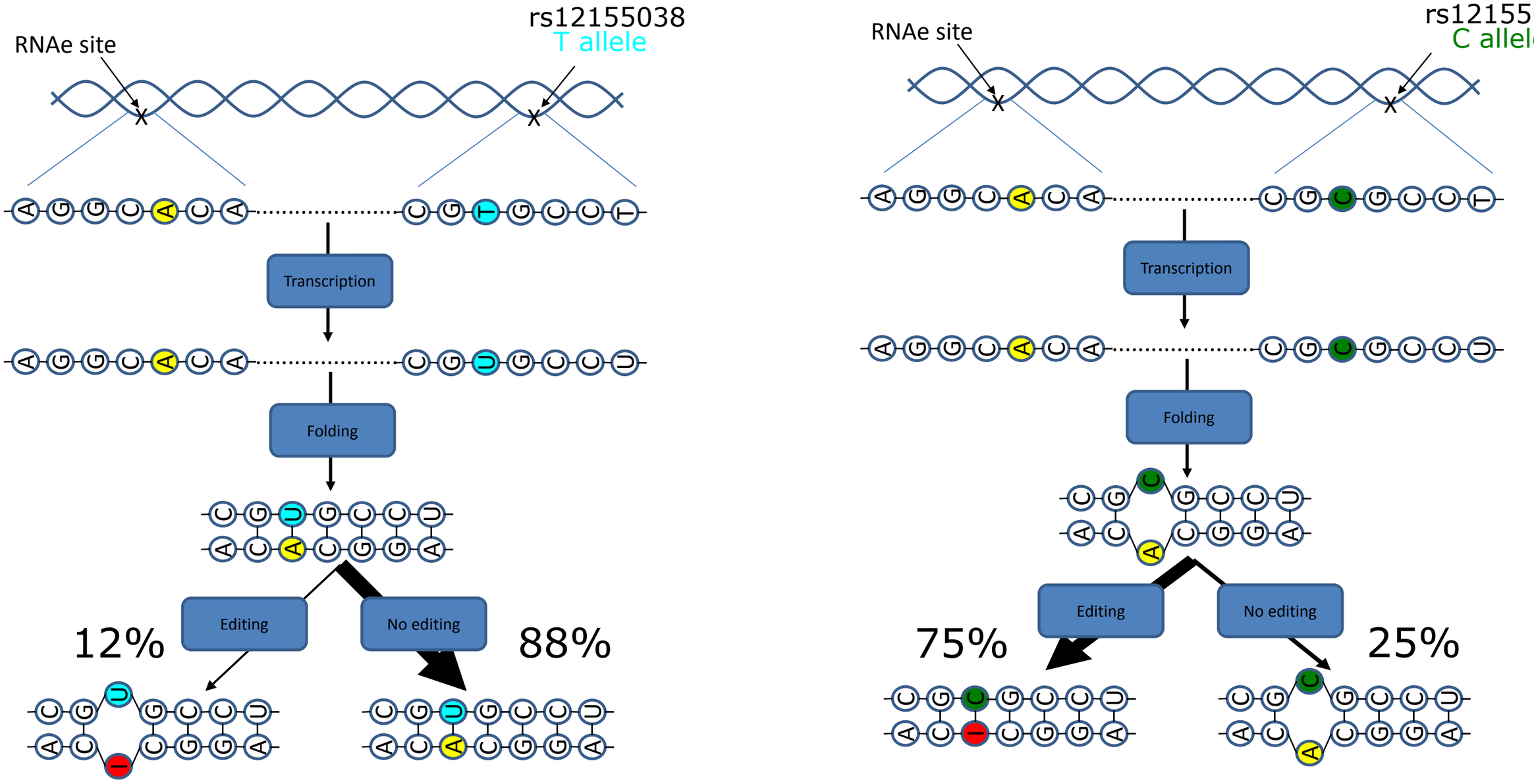


Fig S6. The effect of the potential causal RNAe -QTL on the RNA secondary structure. In this case, the potential causal RNAe -QTL localized on the direct opposite of the RNAe site within the hairpin. A, B, C and D. please refer to Fig 3.

RNAe site: chr6:53157537

```
rs1973914 (potential causal RNAe-QTL): 2.123e-43 Estimated free energy = -20
6_53157507-53157567      GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC-
6_53158155-53158215      -CCCAGGCTGAAGTGCAGTGGCGTGATCTCAGCTCACTGCAACCTCTGCCTCTAGGGTCCA
                          **** ****  *********   ***************** ***** ****     * *


rs2294852: P = 5.505e-10 Estimated free energy = -5.7
6_53157507-53157567      GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC--
6_53157184-53157244      --GCAGACTCAGAAAACGTGCTGCTTAGCCACGTTAGTGAAACTGGCACTAATTAGAAAGGC
                           **  **  *     *** * *     **  * * ** * *     *     *


rs1973915: P = 8.148e-33 Estimated free energy = -6.2
6_53157507-53157567      GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC---
6_53158229-53158289      -CTTAGCCTCCAGAGTAGC--TGGGACTATAGACACACACCACCACACCCCGCTAATTTTTGT
                          *  *  **   * * **   *  **    **       *  ** *  **  * *****


rs1555113: P = 2.123e-43 Estimated free energy = -8.4
6_53157507-53157567      GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC-----
6_53157772-53157832      -----GGGAGGAGGGAGAGGGAAACAGGTCAGCCGCCAGCAGCAAACTGACAACCTCTTCTTGGA
                               *  ** * *    ** *  *  *****   * *****    *     *   ***


rs2294856: P = 6.259e-22 Estimated free energy = -14.55
6_53157507-53157567      ------GCCCACGCTGGG-GTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC
6_53158305-53158365      AGGTTTCACCATATTGGTCAGGCTGGTCTGGAACTCCTGACCTCAGGGGACCCACCTGCC-------
                                ***   ***    ** *   *   *   * *  * * *  * * *  *  **


rs9349660: P = 1.322e-42 Estimated free energy = -2.55
6_53157507-53157567     -------------GCCCACGCTGGGGT-GCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC
6_53154180-53154240     CTTCTGTGTCTTAGCATTCAATGGAGTAGAAATGCTAAGTATAAAAAGAAAAATGGCCGG--------------
                                  **   *  *** ** * * ** ** *     *    *     ***
```

```
rs9370190: P = 1.069e-41 Estimated free energy = -2.95
6_53157507-53157567      GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTG--CAGCC—TCTTCCTCCCAATTTC
6_53161495-53161555      CCCTACCTTC---CCCAATT-TAAGATTTACATTTAGAGGGTAGCTAATCAACTTTTCATATGC
                         ** **  *      ** *  ** *** *    * *  *   ***   **  * *  **  * *


rs6915255: P = 2.123e-43 Estimated free energy = -4.95
6_53157507-53157567      GCCCACGCTGGGGTG-CAGTGGTACGATCTCAGCTCA---CTGCAGCCTCTTCCTCCCAATTTC---
6_53162117-53162177      -------CTGAGATTTCAATTACCTGAAATCAACCATGGTCTGAAAATACGAGGTGGGAAATTCCAG
                               *** * *  ** *     **  *** *      *** *    *    *   ** ***


rs974323: P = 2.909e-43 Estimated free energy = -5.1
6_53157507-53157567      --GCC-CACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC
6_53159517-53159577      GGGCCATACACTAATTTACAGAACCTCTCCCCTACTGACAGGCATCCAGATGATTCCTTG---
                           ***  ** **    * ***     *   *  *       *** **   *  * **


rs2294866: P = 2.123e-43 Estimated free energy = -5.4
6_53157507-53157567      --GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC
6_53153684-53153744      GAAACCTTGTCTTTACGAAAAATACAAAACTTAGCTAGACGTGGTGGCATGCTCCTGTAG--
                             **  *       * *        * ** ****    *  *   * * ****


rs3736732: P = 5.505e-10 Estimated free energy = -5.7
6_53157507-53157567      -GCCCACGCTGGGGTGCAGTGGT-ACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC
6_53160353-53160413      CTACTATCTCCTCATGCAATATTTACAAGGGACTATAGGCAGGGAGTGATGCTGCAGAAG--
                            * *        **** *  * ** *       *       *  *  * ** *  *


rs2294869: P = 2.123e-43 Estimated free energy = -5.95
6_53157507-53157567      GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC-----
6_53155310-53155370      -----AGTCTAATTAAACTGACTTCATTCTAGAATAGGACAGAAAAAAAAGCAAAAAAAGGAGTT
                               *      *  * **     **   **   *   ***         *  **


rs2294868: P = 2.909e-43 Estimated free energy = -6
6_53157507-53157567      GCCCACGCTGGGGTGCAGTGGTACGATCTCAGCTCACTGCAGCCTCTTCCTCCCAATTTC---
6_53155081-53155141      -GAAATATTTTTCTCTATTAATATTGCCATGTATAATAATAAACTCTG--TAAGAGTTCTCTT
                             *   *    *  * *  **    *     * *    *  ****   *   * **
```

Fig S7. Pairwise local alignment of the reverse complementary DNA sequence surrounding the RNAe site chr6:53157537 and the DNA sequences surrounding the associated SNPs (Fig 3). The first pairwise alignment is the potential causal RNAe-QTL (rs1973914) with the lowest estimated free energy. In each pairwise alignment, the RNAe site is colored by yellow and the associated SNP is colored in magenta.

RNAe site chr2:128950992

rs11682050 (potential causal RNAe-QTL): P = 6.032e-38 Estimated free energy = -7.9

```
2_128950962-128951022      -TTACAGGCGCCTGCCACCATGCCTGGTTAATTTTTGTATTTTTAGTAGAGATGGGGTTTT
2_128950572-128950632      ACTACAGGTGTGTGCCACCATGCCCAGCTAATTTTTGTATTTTTAGTAGAGACGGGGTTT-
                             ****** *  ************  * ********************** *******
```

rs2489391: P = 4.909e-37 Estimated free energy = -3

```
2_128950962-128951022      -------TTACAGGCGCCTGCCACCATGCCTGGTTAATTTTTGTATTTTTAGTAGAGATGGGGTTTT
2_128947865-128947925      CCCAAAATTAATTTGCCCAGCCACTGCACCAAACCAGCCTTGACACACA-ATTGTTGGTTG------
                                 ***      ** *****    **     *   **   *     * *   * * *
```

rs10195101: P = 4.818e-14 Estimated free energy = -3.75

```
2_128950962-128951022      TTACAGGCGCCTGCCACCATGCCTGGTTAATTTTTGTATTTTTAGTAGAGATGGGGT---TTT
2_128946884-128946944      TCTTGGATGTTTAA-ACTGTTTTTGAT--GCTTCTGGCTTATAAGTAATAGTAAAATAAATTT
                           *    *  *  *   **  *   ** *    ** **  ** * ****    *    *   ***
```

rs11542865: P = 1.888e-37 Estimated free energy = -5.45

```
2_128950962-128951022      TTACAGGCGCCTGCCACCATGC-CTGGTTAATTTTTGTATTTTTAGTAGAGATGGGGTTTT-
2_128947475-128947535      --ACTTGGTCTTCCTCTGAGGTACAAATCCAACAGAGCTTTAATCCCAAAGATCCAGTGGCC
                             **  *  * * *    * *  *   *  *     *  **  *   * ****   **
```

rs1054317: P = 7.118e-37 Estimated free energy = -5.85

```
2_128950962-128951022      TTACAGGCGCCTGCCACCATGCCTGGTTAATTTTTGTATTTTTAGTAGA-GATGGGGTTTT-
2_128949863-128949923      --TTTAGTGGTAACATCATTTTCTGGGGCATTTGGTTAATTTTGAAAGATGATTATGCCACA
                                 * *    *  *  *  ****   ****   ** ****   *** ***   *
```

rs13028303: P = 8.335e-24 Estimated free energy = -6.2

```
2_128950962-128951022      ------TTACAGGCGCCTGCCACCATGCCTGGTTAATTTTTGTATTTTTAGTAGAGATGGGGTTTT
2_128949178-128949238      GGCTGGTCTTGAACTCCTGACCTCATGATCCGTCCGCCTCAGCCTCCCAA--AGTGCTGGGA----
                                 *      * **** *  ****    **     *  *  *    *  ** * ****
```

Fig S8. Pairwise local alignment of the reverse complementary DNA sequence surrounding the RNAe site chr2:128950992 and the DNA sequences surrounding the associated SNPs (Fig S3). The first pairwise alignment is the potential causal RNAe-QTL (rs11682050) with the lowest estimated free energy. In each pairwise alignment, the RNAe site is colored by yellow and the associated SNP is colored in magenta.

RNAe site: chr16:15795035

rs8048427 (potential causal RNAe-QTL): P = 1.467e-225 Estimated free energy = -17.15
16_15795005-15795065 -GTTGCTTGGACCCGGGAGGTGGAGGGTGCAGTGAGCCAAGATTGCGCTACTGTACTCCAG
16_15794355-15794415 AATCGCTTGAACCTAGGAGGCGGAGGCTGCAGTGAGCCGAAATTGCACCACTACACTCCA-
* ***** *** ***** ***** ********** * ***** * *** ******

rs2242549: P = 2.698e-67 Estimated free energy = 2.5
16_15795005-15795065 GTTGCTTGGACCCGGGAGGTGGAGGGTGCAGTGAGCCAAGATTGCGCTACTGTACTCCAG---
16_15798180-15798240 ---GCTTTGAAAAACCTTCTCCACCCACCCCCGAAACCAATTTCAGCTGATTAAATTCAATCA
**** ** * * * ** * * ** *** * * * **

rs8529: P = 3.334e-154 Estimated free energy = -6.55
16_15795005-15795065 GTTGCTTGGACCCGGGAGGTGGAGGGTGCAGTGAGCCAAGATTGCGCTACTGTACTCCAG--
16_15795442-15795502 --TCCTAACATGCAGTGATGAGTGGACACACCATGGTGCGTTGGAAATCCCACGTTCACGTC
* ** * * * * ** ** * * * * * ** *

rs11075276: P = 1.763e-88 Estimated free energy = -6.7
16_15795005-15795065 --GTTGCTTGGACCCGGGAGGTGGAGGGT-GCAGTGA-GCCAAGATTGCGCTACTGTACTCCAG
16_15799798-15799858 TTTTTTTTTTTTTTTTTGAGACGGAGTCTCACCCTGTCGCCTAGGCTGGAGTGCAGTGGC----
** ** *** **** * * ** *** ** ** * * **

rs11647544: P = 6.093e-87 Estimated free energy = -7.15
16_15795005-15795065 -GTTGCTTGGACCCGGGAGGTGGAGGGTGCAGTGAGCCAAGATTGCGCTACTGTACTCCAG
16_15796538-15796598 GAGTCAGCAAACACTTTCCACAAAACGTCAAATGGTGGCTGGGTACAGTGGCTCACACCT-
* ** * * ** * ** * * * * ** **

rs4781680: P = 1.722e-109 Estimated free energy = -8.35
16_15795005-15795065 -GTTGC-TTGGACCCGGGAGGTGGAGGGTGCAGTGAGCCAAGATTGCGCTACTGTACTCCAG
16_15799997-15800057 TGTGAAGCTGGGCTAGGAGTGTTTACTTTGAAGTGGCTGCAGCTTTAAGTATT-TATTCCT-
** *** * ** ** * ** **** ** ** ** * ** ***

rs7204617: P = 2.459e-123 Estimated free energy = -14.35
16_15795005-15795065 -GTTGCTTGGACCCGGGAGGTGGAGGGTGCAGTGAGCCAAGATTGCGCTACTGTACTCCAG
16_15792203-15792263 TTTTTTTCTGAGACAAGGTCTCGCTTCATCACCCAGGCTGGAGTGCAGTGGCTGGGAACA-
** * ** * * * * ** ** * ** *** * **

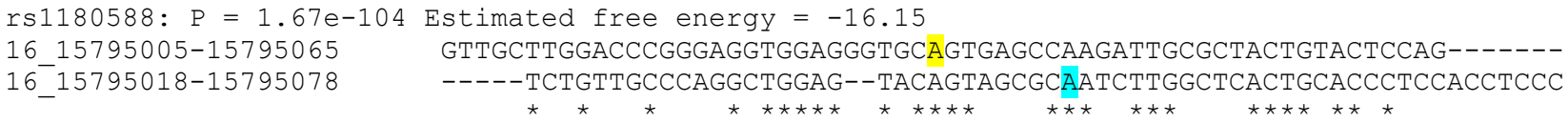


Fig S9. Pairwise local alignment of the reverse complementary DNA sequence surrounding the RNAe site chr16:15795035 and the DNA sequences surrounding the associated SNPs (Fig S4). The first pairwise alignment is the potential causal RNAe-QTL (rs8048427) with the lowest estimated free energy. In each pairwise alignment, the RNAe site is colored by yellow and the associated SNP is colored in magenta.

RNAe site: chr7:44872421

rs12155038 (potential causal RNAe-QTL): P = 6.706e-147 Estimated free energy = -13

```
7_44872391-44872451      -TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44872947-44873007      ATGTTTTTTAATCGGCCCACACCACCGTGCACGGACATCAGGGTCGATGAGTCCTCCGAC-
                          * ************ *** ******** ******** ********** *     *****
```

rs10247923: P = 4.402e-13 Estimated free energy = -1.5

```
7_44872391-44872451      ---TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44877167-44877227      CAGGGTCGATCACCTCTCCCACTCCACCCTACTAATGGACTGGGTCCTCCAA---CTCCGACG
                              *   * *      ***  ***** ***      **  **  *   **     *****
```

rs10260964: P = 5.001e-13 Estimated free energy = -2

```
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT---
7_44873414-44873474      GTCTCACGAGATGACTGGTTCTTTCA-ACAACGACGGTGTAAT—ATCTACACCTCGGATTCC
                          * *    *   *     * *   *  ***  ***       *  **  **  * **  *
```

rs6959442: P = 2.671e-32 Estimated free energy = -2.25

```
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCG-ATAAACGTCCCGACT
7_44869001-44869061      ACGGGTCGATTAAAAACATAAAAAT-CATCTGCACCCCAAAGTGGTACAACCGGTCTGACC
                              *  * *     ****  *    *   * ** ***  ** * * ** **  * ***
```

rs11770684: P = 5.001e-13 Estimated free energy = -3

```
7_44872391-44872451      -TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44868072-44868132      AAATTCGGAGACAGAAGTAGGAATTTCACCACTACTATCATGGATGGAGTGAGACTAGAG-
                            **     *  *    *          ***    * ** **  *      * *  **
```

rs36047398: P = 2.671e-32 Estimated free energy = -3.25

```
7_44872391-44872451     --------------TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44873344-44873404     AACACACGATACGGTTTTTTGTAACTTGACCAT-CTATCTTTTACTGTCTCGATCCTAAGT-------------
                                  ****** ***   * **** * * * *  ** * * * *   *   *
```

```
rs1297837: P = 5.001e-13 Estimated free energy = -3.75
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTA-CACGGACACCAGGGT---CGATAAACGTCCCGACT
7_44869507-44869567      -TCGTCGAAACTAAATTTCATTAAAGTCTCGCGAAAAGGAACGTACTCATTAAAAGACTTA---
                          *  *   **         *  *  **  * ** * *  *  **   *  **** * *


rs11544537: P = 2.671e-32 Estimated free energy = -4.05
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCG---TACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44868037-44868097      -TATCATGGATGGAGTGAGACTAGAGACTTACTCTTGTGTACATTCTGTGAATCGTGTCAA--
                          * *  *  ** *    * ** *  *   *** *            *  ** ***  * *


rs10267576: P = 4.212e-116 Estimated free energy = -4.3
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGA--TAAACGTCCCGACT
7_44870903-44870963      GTTTTTTGTATC--TTTATCTTGTTGATCCAGTACATGAGACCCGAATCGAGAGTGTCAATA
                          ******  ***  *  **      *  *  * ***  **   ***    *  **  * *


rs41280660: P = 2.671e-32 Estimated free energy = -4.5
7_44872391-44872451      --TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44874936-44874996      TATTGTTAAGATTCGAAAAGTATTACTAGACTTATTTAT-AAAGTGGAAGATCGGTATACA-
                           ** **   * ***     **  **   **      *  *  ** **  * **


rs7801994: P = 3.043e-10 Estimated free energy = -4.75
7_44872391-44872451      --TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT-
7_44872646-44872706      GGTGATGTGAGGTCGGATC-CACTGTCTCACACTGAGACAGAGTTTTTTT--TTTTAGGGTTG
                           *  * *    ****  *  **   *  **** ** **   * *   *     *   *  *


rs7801526: P = 2.057e-10 Estimated free energy = -4.85
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGG-GTCGATAAACGTCCCGACT-----
7_44872236-44872296      -----CCTAATATCCGTATTCGGTGGTACG-GGACGCGATTCATTGACAATGAACTCAATTACATG
                               ****      ** *    ****  **** * *    * ** **    * * * *
```

```
rs1135760: P = 5.001e-13 Estimated free energy = -5
7_44872391-44872451      -TTTTTTTTAATCGGTC---CATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44868417-44868477      CTTCACTTAGGAAGGTCACTCGAACCTTCTTTCGTGGAACTCCGTGTCTAC---TCTTCGAAC-
                          **   **     ****   *  ***  * * *  ***   * * *** *      * *  **


rs1058056: P = 4.745e-19 Estimated free energy = -5.45
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT-----
7_44868349-44868409      -----ACTACGGAACTAAAATCGGACCACTCTGGGACTCGTATATTTAAACGACACGATACGGTG
                                ** *       * * *     ** * *  **  *  *   ****** * ***


rs1054214: P = 5.056e-20 Estimated free energy = -6.7
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTA-CACGGACACCAGGGTCGATAAACGTCCCGACT--
7_44871918-44871978      --CAGGGTAATTG-TCCGTATCATAAAAGTACAGACACACTAGTCTCTGTAAGTTTATATTGA
                                **** * *** ** **    *  ** *****    ***  *  * **    * *


rs66566005: P = 6.869e-32 Estimated free energy = -6.8
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT-
7_44868941-44869001      -AGAGTTTGAGGACTGGAGTCCGCTAGGCGGGCAGATTCGGAAGGTTTCACGACCCTAATG
                              *** *    *  *  ** *    *  * * *   **   * *  *** *** * *


rs35358315: P = 2.382e-11 Estimated free energy = -8.05
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT---
7_44876848-44876908      --GACCCTAATGTCCGCACACGGTGGTGTGGAACGACTAAAAAC-ATAAAAATTTCAAGTCGT
                                ****     ** **    **        ** *    * *****  *  * * *


rs7789162: P = 1.67e-84 Estimated free energy = -8.7
7_44872391-44872451      TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT--
7_44872870-44872930      -CTTGGGCCCTCCGCCTCGAACGTCACTCGGTTCTACCGCGGT-GACGTGAGGTCGAACCGC
                           **      ** * *   * *  *   *      ***  *** **     *  *  **
```

```
rs7805890: P = 1.533e-78 Estimated free energy = -9.45
7_44872391-44872451      --TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44872881-44872941      CTCTTACTGCACTTGGGCCCT-CCGCCTCGAACGT-CACTCGGTTCTACCGCGGTGACGTGA
                            **  *  * * ** ** * ** **    ***  ***  ** ** *     **  **


rs12155039: P = 1.465e-93 Estimated free energy = -9.45
7_44872391-44872451      ------------TTTTTTTTAATCGGTCCATACCACCGTACACGGACACCAGGGTCGATAAACGTCCCGACT
7_44873095-44873155      GTTGTACCATTTTGCGGCAGAGCCGGTCCGCGCCACCGAGTGCGGACATTAGGGTCGTGA------------
                                    *       *  ******   ******    ******  *******  *
```

Fig S10. Pairwise local alignment of the reverse complementary DNA sequence surrounding the RNAe site chr7:44872421 and the DNA sequences surrounding the associated SNPs (Fig S5). The first pairwise alignment is the potential causal RNAe-QTL (rs12155038) with the lowest estimated free energy. In each pairwise alignment, the RNAe site is colored by yellow and the associated SNP is colored in magenta.

Table S1. Characteristics of RDD sites and RNAe-QTLs detected. RDD sites and associated SNP positions are provided in the HG19 human reference genome.

Table S2. RNAe-QTLs with the lowest free energy in the pairwise sequence alignment with RNAe site. RNAe sites and RNAe-QTL positions are provided in the HG19 human reference genome.

Table S3. Allele specific editing for RNAe sites and RNAe-QTLs falling on the same reads or mates. RNAe sites and RNAe-QTL positions are provided in the HG19 human reference genome.