Ddx3x Exon 1

5'...tgcggtagag gcagcctttg ctcagcagcg gaagactccg atttctcggt actcttca...3'
3'... acgccarctc cgtcggaaac gagtcgtcgc cttctgaggc taaagagcca tgagaagt...5'

RVDs for left TALEN

   g c g g t a   g a g g c a   g c c t t t
   NNHDNNNNNGNI NN NINNNNHDNI NN HDHDNGNGNG
       Hex-1   **Hex-2**   **Hex-3**

RVDs for left TALEN

   g a a g a g   t a c c g a   g a a a t c
   NNNININNNINN NGNIHDHDNNNI NNNININIGHD
       Hex-4   **Hex-5**   **Hex-6**

Ddx3y Intron4/Exon 5

5'...tcttgattat tcgctgttc ag**GTTCGATG ATCATGGTCG AAATGACTAT GATGGTA**...3'
3'... agaactaata agcgacaag tc**CAAGCTAC TAGTACC**AGC TTTACTGATA CTACCAT...5'

RVDs for left TALEN

   c t t g a t   t a t t c t   g c t g t t
   HDNGNGNNNING NGNINGNGHDNG NNHDNGNNNGNG
       Hex-1   **Hex-2**   **Hex-3**

RVDs for Right TALEN

   A C C A T C   **A T A G T C**   **A T T T C G**
   NIHDHDNINGHD NINGNINNNGHD NINGNGNGHDNN
       Hex-4   **Hex-5**   **Hex-6**

D1Pas1

5'...**TGAGCTCGGG CTGGACCAGC AGTTGGCTGG CCTAGACCTG ACGTCTCGGG ACAGCCA**...3'
3'... **ACTCGAGCCC GACCTGGTCG TCAACCGACC GGATCTG**GAC TGCAGAGCCC TGTCGGT...5'

RVDs for left TALEN

   G A G C T C **G G G C T G** **G A C C A G**
   NNNINIHDNGHD NNNNNNHDNGNN NNNIHDHDNINN
       Hex-1   **Hex2**   **Hex3**

RVDs for left TALEN

   G G C T G T **C C C G A G** **A C G T C A**
   NNNNHDNGNNNG HDHDHDNNNINN NIHDNNNGHDNI
       Hex-4   **Hex-5**   **Hex-6**

Figure S2. TALENs' target sequences of Ddx3x Exon 1, Ddx3y and D1Pas1.   The TALEN pair for Ddx3x targets the 5' untranslated region. The TALEN pair for Ddx3y targets intron 4 (left TALEN, red) and exon 5 (Right TALEN, blue).   The TALEN pair of the D1Pas1 (retrotransposed autosomal copy of Ddx3x) targets sequences corresponding to exon 1 (for left TALEN, red) and exon 2 (for right TALEN, blue) of Ddx3x. The left and right TALEN target sequences for each gene are indicated with bold underlines. The assembled RVDs (with encoded nucleotides) for the left and right TALENs are below each target gene region. RVDs (NI, NG, NN and HD) are color coded in correspondence with the RVD library in Figure S1. Exon sequences are indicated with bold font.