**Supplementary information**

**Functional disruption of the dystrophin gene in Rhesus Monkey Using**

**CRISPR/Cas9**

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**Supplementary Figure legends**

**Figure Legends**

**Figure S1. Off-target analysis via T7EN1 assay.** DNA gel data showing no cleavage by T7EN1 for the potential targeted DNAs. WT is a negative control, PC is a positive control.
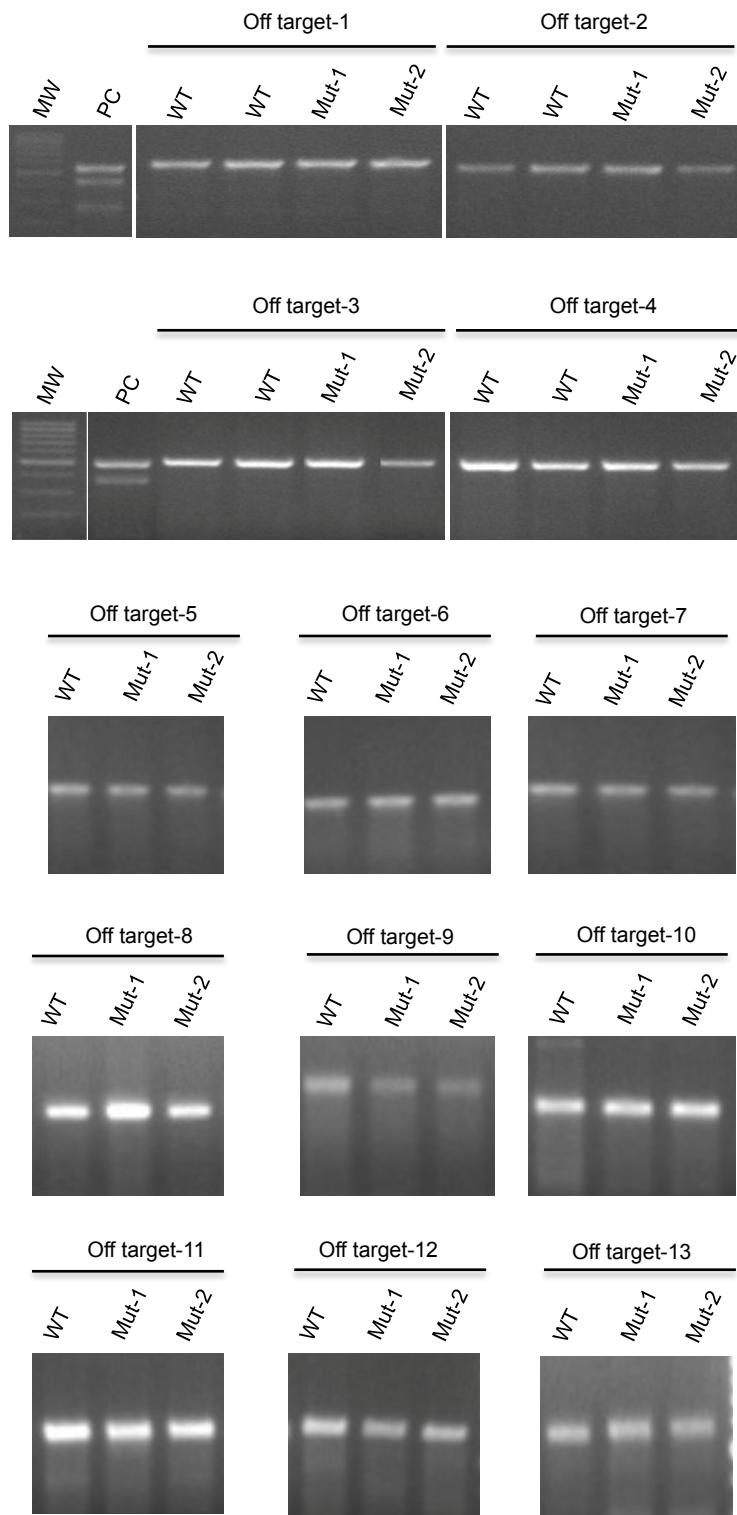
**Figure S2. Histological analysis of monkey muscles. (A)** Anti-dystrophin immunostaining (left) and H&E staining (right) of 8-year-old monkey muscle sections. Scale bars: 50 (left) and 20 (right) μm. (**B**) H&E staining of skeletal muscles of full-term stillborn WT and Mut-2 monkeys. Scale bars: 20 μm.

**Supplementary Table 1. Potential off-target sequences and their genes.**

Supplementary Table-1

| Potential off-target | Genbank Sequence ID | Sequences (potential targeted region bold, mismatch: red) | Primer Sequences (5' to 3') | Amplicon (bp) |
|---|---|---|---|---|
| 1 | NW_001098157.1 chr12 | tatggTgATAAACTGACTCTTGG | TCATTTCCAGGCACACTTGA TTGACTCAGTGAGGGGACCT | 538bp |
| 2 | NW_001122901.1 chr8 | aaagcagATAAACTGACTCTTGG | ACCAGAAGGCAGGTGAGAGA ATACCGAGAGCAAGGTGGTG | 577bp |
| 3 | NW_001108738.1 chr1 | GaAAACATacAACTGACTCTTGG | TGCCAGGAAACAGGGTAAAG TGTTTGTCCTGCAGTCATTTC | 511bp |
| 4 | NW_001096616.1 chr11 | aAAATCATaAAATGACTCTTGG | GCCCAGAGTGTAATCTGCTCA TCAAATTAAGTTAACAAAAAGGAAGGA | 502bp |
| 5 | JV543636.1 chr12 | GGAtATCATAAAagGACaCTTGG | TCTGTTGTTGGGTTCTACAAATG CTGCAGCCTGACTGACAGAG | 538bp |
| 6 | JV638520 chr1 | GGAAATCATctACTGcCTCTTGG | TCCCTTCCTGCCTTAAATCC TCCCAACAGGCAAGAAAATC | 552bp |
| 7 | NM_001261353.1 chrX | tGAAATCAaAAgCTGAtTCTTGG | GCCAAAGAGAAATCAAAACAGAA TCCTAGGAATTTTTCCATTTCA | 509bp |
| 8 | JU481420.1 chrX | GGAAATgAgAAACTGACTCaTGG | ATGGCCAATGTTGTGTGAGA TAGCCAGCTCCTCACCAGTT | 525bp |
| 9 | NW_001114282.1 chr3 | tGAAATCAaAAgCTGAtTCTTGG | TCCTTTTTCTCATTCCTGCAA CAGATTACACTCTGGGCCATT | 552bp |
| 10 | NW_001124211.1 chr9 | GGAAtTCATtgcCTGACTCTTGG | GGGCTACCCAATCTGACAAA GGGCTACAATCTGGCTTCAG | 534bp |
| 11 | NW_001122901.1 chr8 | GGtAATgATAAAaTGACTtTTGG | CCTGACCTGACAAAGCCATT GCAGTGTCCAGGGTTACCAC | 565bp |
| 12 | NW_001101665.1 chr15 | GcAAcTCAcAAACTGACaCTTGG | CCACCTCCCACATAAACCAC TGAGGCCTTCATGCCTAGAT | 596bp |
| 13 | NW_001118155.1 chr5 | GaAAAtTCATAAACTGaCTcTGG | AAGCCACGCTTTTTCAACTC TGATCAGAGGAATGGATGGAG | 590bp |

8-year-old WT monkey

A    Anti-dystrophin                    H.E. staining

50 μm                              20 μm

B    WT                                 Mut-2

20 μm                              20 μm