**Annotated DNA sequences**

**Silent mutation**

**Mutation**

Synthetic Intron/Inserted Sequence

Guide RNA complementary sequence

SRSF2 Silent ssODN:

t\*g\*gacggccgcgagctgcgggtgcaaatggcgcgctacggccgccc**T**cc**A**ga**T**tcacaccacagccgccggggaccgccaccccgcag\*g\*t

SRSF2 P95H ssODN:

t\*g\*gacggccgcgagctgcgggtgcaaatggcgcgctacggccgcc**AT**ccggactcacaccacagccgccggggaccgccaccccgcag\*g\*t

SRSF2 long ssODN donor

ttcacgacaagcgcgacgctgaggacgctatggatgccatggacggggccgtgctggacggccgcgagctgcgggtgcaaatggcgcgctacggccgcc**AT**ccggactcacaccacagccgccggggaccgccaccccgcaggtacgggggcggtggctacggacgccggagccgcaggtaaacggggctgaggggaccg

SRSF2 P95H ssODN with additional silent mutations:

t\*g\*gacggccgcgagctgcgggtgcaaatggcgcgctacggccgcc**AT**cc**A**ga**T**tcacaccacagccgccggggaccgccaccccgcag\*g\*t

SRSF2 P95H AAV donor sequence:

cctgcaggcagctgcgcgctcgctcgctcactgaggccgcccgggcgtcgggcgacctttggtcgcccggcctcagtgagcgagcgagcgcgcagagagggagtggccaactccatcactaggggttcctgcggcctctagACCGGCGTCCGTGCTGTTCTGCGGCaaggcctttcccagtgtccccacgcggaaggcaactgcctgagaggcgcggcgtcgcaccgcccagagctgaggaagccggcgccagttcgcggggctccgggccgccactcagagctatgagctacggccgcccccctcccgatgtggagggtatgacctccctcaaggtggacaacctgacctaccgcacctcgcccgacacgctgaggcgcgtcttcgagaagtacgggcgcgtcggcgacgtgtacatcccgcgggaccgctacaccaaggagtcccgcggcttcgccttcgttcgctttcacgacaagcgcgacgctgaggacgctatggatgccatggacggggccgtgctggacggccgcgagctgcgggtgcaaatggcgcgctacggccgcc**A**cccggtAAGTgAAAAAagcatagctctaaaacTGCTTCGCTACTGCATCGGCCGGGAATCGAACCCGGGCCGCCCGCGTGGCAGGCGAGCATTCTACCACTGAACCACCGATGCTACTAACTCGAGagTTCTTTCTTTCTTTCACAGgactcacaccacagccgccggggaccgccaccccgcaggtacgggggcggtggctacggacgccggagccgcaggtaaacggggctgaggggaccgcgggaggcggggcggggcgcgcgggaggcccgggcgacctcacaaaggtccgcggcgaagcacgtggtgcgggcccggacggggcgggggtgcacgccgcgtctcgcgaccctccggccaccccgcgagcttccgccgtctgcgacccgggagtggccggggtgtgggcggcgcggggcggaggaccccgcctcgcgactggggaaatggcgtctggcggcgagataatggcggcctgggcgggagcgcgcgggcggggccggccccgctgcctggaattaaccccgctgtgcttgctcgtcccgcccgcagccctaggcggcgtcgccgcagccgatcccggagtcggagtcgttccaggtctcgcagccgatctcgctacagCCGCTCGAAGTCTCGGTCCCGCTAGTgcggccgcaggaacccctagtgatggagttggccactccctctctgcgcgctcgctcgctcactgaggccgggcgaccaaaggtcgcccgacgcccgggctttgcccgggcggcctcagtgagcgagcgagcgcgca

SF3B1 K700E AAV donor sequence

GAGCTTTTGCTGTTGTAGCCTCtgccctgggcattccttctttattgcccttcttaaaagctgtgtgcaaaagcaagaagtcctggcaagcgagacacactggtattaagattgtacaacagatagctattcttatgggctgtgccatcttgccacatcttagaagtttagttgaaatcattgaacatggtaagttgtaatgtaactttgtctttttttttttttctttaggagacagggtcttactatgttgcccagactggactcaaacctttgggctcaagtgatcctcctgctcagcctccttagtagttgggactagaggtacacacacagcctgtccatgtttaataggacagctgtcctaaaattTGGGCTACTGATTTGGGGAGataaatggaaaggcatagctctacaaactatagattttatgatgggtttgttatattatctgctgacaggctatggttcatgttttgcttttacctaattttgtttaatgtgaacatattctgcagtttggctgaatagttgatatattgagagaatctggatgatattgtgtaacttaggtaatgttggAAAAAagcatagctctaaaacTGCTTCGCTACTGCATCGGCCGGGAATCGAACCCGGGCCGCCCGCGTGGCAGGCGAGCATTCTACCACTGAACCACCGATGCggcatagttaaaacctgtgtttg**C**ttttgtaggtcttgt**T**gatgagca**A**cag**G**aagttcggaccatcagtgctttggccattgctgccttggctgaagcagcaactccttatggtatcgaatcttttgattctgtgttaaagcctttatggAAGGGTATCCGCCAACACAGaggaaaggtaaatccaccaattaccttttgatttatcttcattaaagttaaggcgacataaatctaaattactaaagtacatatattttttatttaaaaatagggtttggctgctttcttgaaggctattgggtatcttattcctcttatggatgcagaatatgccaactactatactagagaagtgatgttaatccttattcgagaattccagtctcctgatgaggaaatgaaaaaaattgtgctgaaggtaattattccagatttgttaatgtaaaCTGGATATGTTTCATGGTTCTAACATAGT