

INK2J00082_FUS_R521H_B03_BB
 11,468 bp

5'

TGCTCAGTCCTCCAGGCGTCGGTACTCAGCGGTGTTGGAACCTTCGTTGCTTGCCTGTGCGCGCGTGC CGCGGACATGGCCTC
ACGAGTCAGGAGGTCCGCGAGCCATGAGTCGCCACAACCTTGAAGCAACGAACGAACGGACACGCGCGCACGCGCCTGTACCGGAG

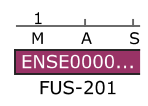
85



FUS



FUS-201



AAACGGTAGGTAAGGGCGCGAGGCGACGGCGGGCGCGCACCCGGCCGAGGCCTCCAGCTGGGCTTTTCGTTTTTCAGTGGGACCG
TTTGCCATCCATTCCCGCGCTCCGCTGCCGCGCCGCGGTGGGCCGGCTCCGGAGGGTCGACCCGAAAAGCAAAAGTCACCCCTGGC

170



FUS



FUS-201



FUS-201

GGGCGGCGATCCCGTGTGGGATTTTTGGCGCCCTGTGGCGGGAAGCCGCGGAGAAGAGTAACTGGAGGAGGCTGGTGTGCCA
CCCGCCGCTAGGGCACACCCTAAAAAACCGCGGGGACACCGCCCTTCGGCGCCTCTTCTCATTGACCTCCTCCGACCACAGCGGT

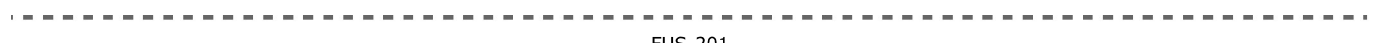
255



FUS



FUS-201



FUS-201

TTTTGTTTCGCTCCTCTGGCCCTCGCGCGCGGGGCGGGAAGTCTTTTCTTTGTCAGTCCGTTTGCTTGGGGTGGGCGTTGGGAGGG
AAAACAAAGCGAGGAGACCGGGAGCGCGCGCCCGCCCTTCAGAAAAGAAACGTCAGGCAAACGAACCCACCCGCAACCCCTCCC

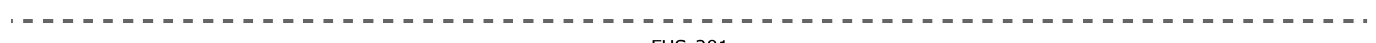
340



FUS



FUS-201



FUS-201

ACGCTTCTTAGGGGTTTGAAGCGTCAGGTGAGGGTGGAAAACGCCATTCTCCGTGGCCTCGCCTCCCCAACTCCC GGCCCCGCG
TGCGAAGAATCCCCAACTTCGAGTCCACTCCACCTTTTGC GGTAAGAGGCACCGGAGCGGAGGGGGTTGAGGGCCGGGGCG

425



FUS



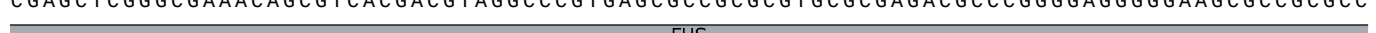
FUS-201



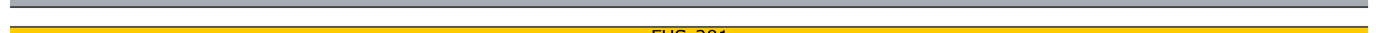
FUS-201

GCTCGAGCCCGCTTTGTCGAGTGCTGCATCCGGGCACTCGCGGCGCGCACGCGCTCTGCGGGCCCTCCCCCTTCGCGGCGCGG
CGAGCTCGGGCGAAAACAGCGTACGACGTAGGCCCGTGAGCGCCGCGCGTGC GCGAGACGCCCGGGGAGGGGGAAAGCGCCGCGCC

510



FUS



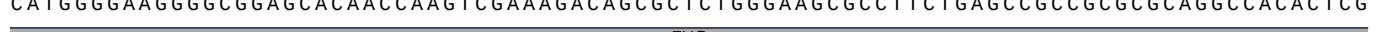
FUS-201



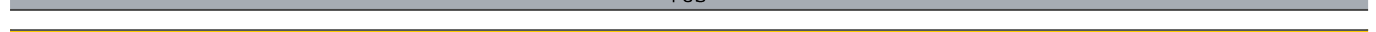
FUS-201

GTACCCCTTCCCCGCTCGTGTGGTTGAGCTTTCTGTGCGGAGACCCTTCGCGGAAGACTCGGCGGCGCGCTCCGGTGTGAGC
CATGGGGAAGGGGCGGAGCACAAACCAAGTCGAAAAGACAGCGCTCTGGGAAGCGCTTCTGAGCCGCCGCGCGCAGGCCACACTCG

595



FUS



FUS-201



FUS-201

CTTGTCCCTCAGTGGTCTTCGCGAATGGGCGGGATCGCTCCGTTCCCGCCTGGGTTGCCACGCGGCTGGGGGCGGAGGCTCGGG
GAACAGGGGAGTCAACCAGGAAGCGCTTACCCGCCCTAGCGAGGCAAGGGCGGACCCAACGGTGCGCCGACCCCGCCTCCGAGCCC

680

FUS

FUS-201

FUS-201

ATCGGGGCGCCCTCTAGCTTAACGGTTTTGGCGGGCGGTGGTCAAGGTTTCGACCAACGGACTTGGGGACGGCCCGAGAGTTTTTCC
TAGCCCCGGCGGGAGATCGAATTGCCAAACCGCCGCCACCAAGTCCCAAGCTGGTTGCCTGAACCCCTGCCGGGCTCTCAAAAAGG

765

FUS

FUS-201

FUS-201

CGCCTAAATTTCTTTCTTTTTTTTTTTGGAGACACGGTCTTCTCTGTGCGCCAGGCTGGAGTGCAGTGGTGCATCTCAGATCA
GCGGATTTAAAGAAAGAAAAAACCCTCTGTGCCAGAAGGAGACAGCGGGTCCGACCTCACGTACCCACGCTAGAGTCTAGT

850

FUS

FUS-201

FUS-201

CTGCAACGTCCACCTCCTGGGTTCAAGTGATTCTTCTGCCTCAGCCTCCTGAGTAGTTGGGATTATAGGCGCCCGCCACCACAGC
GACGTTGCAGGTGGAGGACCCAAGTTCACTAAGAAGACGGAGTTCGGAGGACTCATCAACCCTAATATCCGCGGGCGGTGGTGTGCG

935

FUS

FUS-201

FUS-201

CCGGCTAATTTTTGTGTTTCTTAGTAGGGGCGGGGTTTACCATGTTGGTCAAGGCTGGTCTCGAACTGCTGACCTCAGGTGATCC
GGCCGATTAACAAACACAAAGAATCATCCCCGCCCAAAGTGGTACAACCAGTCCGACCAGAGCTTGACGACTGGAGTCCACTAGG

1020

FUS

FUS-201

FUS-201

GCCCGCCTGGGCTCCCGAAGTGTGCGGATTACAGACGTAAGCCAACCACGCCTGGTCTAAATTTCTTTTTTCTGAGATAGGGAC
CGGGCGGACCCGGAGGGCTTACAGCCCTAATGTCTGCATTGCGTTGGTGCAGGACGATTTAAAGAAAAAAGACTCTATCCCTG

1105

FUS

FUS-201

FUS-201

GGAGAAGAACGGCCGCCCGAGGCCACACCCTCTCCTGGTCTCTTTCCCTTTTCTGCGGGGGAAGCGCCGCGTTTTCTGTGCTG
CCTCTTCTTGCCGGCGGGCTCCGGTGTGGGAGAGGACCAGGAGAAAGGGAAAAGGACGCCCCCTTCGCGGCGCAAAGGACACGAC

1190

FUS

FUS-201

FUS-201

GGAGGATGAGTTGATCTTGTTCGTGTATCTTAAGTGGGGCTTTTCAAAAAGCGCTTTTGTGCTTTTTGTTTCGCTGGGGGAAGGCA
CCTCCTACTCAACTAGAACAAAGCACATAGAATTCACCCCCGAAAAGTTTTTCGCGAAAAACAACGAAAAACAAGCGACCCCTTCCGT

1275

FUS

FUS-201

FUS-201

GGGTAGGTGAGAAAACGGAACCATCTGGAGTCCCAGGGCTGGGGACTCGAGTACCTGTTGACTTTTCGCCTCCTAAGGCGAGCAGT
CCCATCCACTCTTTTGCCTTGGTAGACCTCAGGGTCCCGACCCCTGAGCTCATGGACAACCTGAAAAGCGGAGGATTCCGCTCGTCA

1360

FUS

FUS-201

FUS-201

TGCATGATCTCTGTCATTTGGGGTCCAAGGGCTCTTTTGATTCTCTGGCTTTGCACTAAAAAGCCCACTTCATCTCCGGGATTGG
ACGTA TAGAGACAGTAAACCCAGGTTCCCGAGAAAACCTAAGAGACCGAAACGTGATTTTTCGGGTGAAGTAGAGGCCCTAAC

1445

FUS

FUS-201

FUS-201

TCAAAGAGTGAAGAATGGCCTTTTTTGGAGACTTTCTTATTCTGTGGGTCTGGGCTGAGAGAGCAGAGGCCACAATCTGAACACTG
AGTTTCTCACTTCTTACCGGAAAAAACTCTGAAAGAATAAGACACCCAGACCCGACTCTCTCGTCTCCGGTGTTAGACTTGTGAC

1530

FUS

FUS-201

FUS-201

TTCGAATTCAAACCTGTGCCACTTTGGTAGTTCTGCGACGTTGGGAGAGTTAGTCTCTTGACTCCTGGCGATAATGGCTTTCTCA
AAGCTTAAGTTTGGACACGGTGAACCATCAAGACGCTGCAACCCTCTCAATCAGAGAACCTGAGGACCGCTATTACCGAAAAGT

1615

FUS

FUS-201

FUS-201

TAGAGTGGATGAAACGAATGCGCGATGTTTTAGAGCAATCACTGACATGAATTGGGCTTGCAGAAAATTGTGGATGTCCACCAAG
ATCTCACCTACTTTGCTTACGCGCTACAAAATCTCGTTAGTGACTGTAACCCGAACGTCTTTTAAACCTACAGGTGGTTC

1700

FUS

FUS-201

FUS-201

ACCTTGGTTTTTCCAATGGTTAAGGCTTCTGGGACTCTGTAGAAACTTGCATTTTCTTCACTTTTTCTTTATTGTAAGAACA
TGGAACCAAAAAGGTTACCAATTCCGAAGACCCCTGAGACATCTTTGAACGTAAAAGAAGTGAAAAAGAAATAACATTCTTGTGAA

1785

FUS

FUS-201

FUS-201

GGCTGATAACGCCAGTTTGTTCCTCTTCTCAACCCAGTGTCTCATGGAGGAATTTTATGCCCTTTGTTGCAACATGGTCTCTATTTT
CCGACTATTGCGGTCAAACAAGGAGAAGAGTTGGTCCACAGAGTACCTCCTTAAAAATACGGGAAACAACGTTGTACCAGGATAAAA

1870

FUS

FUS-201

FUS-201

TATTTTTTTTTTTGAGATGGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAATGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAG
ATAAAAAAAAAAACTCTACCTCAGAACGAGACAACGGTCCGACCTCACGTTACCGAGTGACGTTGGAGACGGAGGGCCCAAGTTC

1955

FUS

FUS-201

FUS-201

CGATTCTCCTGCTTCACCTCCCGAGTAGCTGGGATTACAGGCGTGCGCCACCATGCCCGGCTAATTTTTTTGTATTTTTATTAGAG
GCTAAGAGGACGAAGTGGAGGGCTCATCGACCCTAATGTCCGCACGCGGTGGTACGGGCCGATTAAAAAACATAAAAAATAATCTC

2040

FUS

FUS-201

FUS-201

ATGGGGCTTCACCATGTTGGTCAGGCCAGTCTCGAATTCCTGACCTCAAGTGATCCACCCACCTCGGCCTCCCAAACCTGCTGGGA
TACCCCGAAGTGGTACAACCAGTCCGGTCAGAGCTTAAGGACTGGAGTTCACTAGGTGGGTGGAGCCGGAGGGTTTGACGACCT

2125

FUS

FUS-201

FUS-201

TTACAGGCATGATCCACCGTGCCTGGCCTACGTGGTCCTTTTTATTTCATCAGTGCTTGAGTTAAGGAATTTAGCTTTAATTCAAC
AATGTCCGTACTIONAGGTGGCACGGACCGGATGCACCAGGAAAAATAAGTAGTCACGAACTCAATTCCTTAAATCGAAATTAAGTTG

2210

FUS

FUS-201

FUS-201

TCTTTCAGAGTGGCAGCTGAAGATAATGTGATTGTATTTTTCTTTTGCAGATTATACCCAACAAGCAACCCAAAGGTGAGTGCTA
AGAAAAGTCTCACCGTCGACTTCTATTACACTAACATAAAAAAGAAAACGTCTAATATGGGTTGTTTCGTTGGGTTTCCACTCACGAT

2295

FUS

FUS-201

FUS-201

5 10
D Y T Q Q A T Q S
ENSE00003475065

TTTTTGGGCTTCCAGAGTTTGTAGAGGGCAAGGGTGGTCCACGCCATGTTTTCTGATCACGCTGGTTTTCTTTTATTAGCTATG
AAAAACCCGAAGGTCTCAAACATCTCCCGTTCACCAGTGCGGTACAAAAGACTAGTGCGACCAAAAGGAAAAATAAATCGATAC

2380

FUS

FUS-201

FUS-201

Y
ENSE...

GGGCTACCCACCCAGCCCGGGCAGGGCTATTCCAGCAGAGCAGTCAGCCCTACGGACAGCAGAGTTACAGTGTTATAGCCA
CCC GGATGGGGTGGGTCGGGCCCGTCCCGATAAGGGTCGTCTCGTCAGTCGGGATGCCTGTCTGCTCAATGTACCAATATCGGT

2465

FUS

FUS-201

15 G A Y P T Q P G Q G Y S Q Q S Q P Y G Q Q S Y S G Y S Q

ENSE00003630677

FUS-201

GTCCACGGACACTTCAGGCTATGGCCAGAGCAGCTATTCTTCTTATGGCCAGAGCCAGAACAGTGAGTCTTTCTCAGCGGGTCAC
CAGGTGCCTGTGAAGTCCGATACCGGTCTCGTCGATAAGAAGAATACCGGTCTCGGTCTTGTCACTCAGAAAGAGTCGCCCAAGTG

2550

FUS

FUS-201

45 S T D T S G Y G Q S S Y S S Y G 60 S Q N

ENSE00003630677

FUS-201

CTCTTCCTACTCTTTCTGAATATTGCTTTTCTTTTTCTTGTTTTTTGGAGACGGAGTCTGGTCCTGTTGCCAGGCTGGAGTGCA
GAGAAGGATGAGAAAAGACTTATAACGAAAAGAAAAAGAACAAAAAACCTCTGCCTCAGACCAGGACAACGGGTCCGACCTCACGT

2635

FUS

FUS-201

FUS-201

GTGGTGCTGTCTCAGCTCACTGCAACATCAGCCTACCGGGTTCAAACGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTAC
CACCACGACAGAGTCGAGTGACGTTGTAGTCGGATGGCCCAAGTTTGCTAAGAGGACGGAGTCGGAGGACTCATCGACCCTAATG

2720

FUS

FUS-201

FUS-201

AGGTACCTGCTACCACGCCTGGCTAATTTTGTGTTTTTAGTAGAGATGGGGTTTACCCTGTTGGACAGGCTGGTCTGGAACCTCC
TCCATGGACGATGGTGC GGACCGATTAAAACACAAAAATCATCTCTACCCCAAAGTGGCACAACCTGTCCGACCAGACCTTGAGG

2805

FUS

FUS-201

FUS-201

TGACCTCCTGCCTGCCTTGACCTGCCAAAAGTGCTGGGATTACAGGCGTCAGCCACAATGCCCTGAATGTTGCTTTTCTTAAACCT
ACTGGAGGACGGACGGAACCTGGACGGTTTTACGACCCTAATGTCCGCAGTCGGTGTACGGGACTTACAACGAAAAGAAATTTGGA

2890

FUS

FUS-201

FUS-201

GAGCAGCACTGAGATGTTGAAACTGTTCCATATTTCTTTTCCGTGAAACAGTGATAAGTCTTAAACTTTTTGGGATCTGAGTC
CTCGTCGTGACTCTACAACCTTTGACAAGGTATAAAGAAAAGGCACTTTGTACACATATTCAGAATTTTGAAAAACCTAGACTCAG

2975

FUS

FUS-201

FUS-201

CTTTACAGGGCATTGTGGCACACCTGTAGTCCCAGCTACTGAGGAGGGCTGAGGCGGGAGGATCCCTTGAATTCAGGAGTTTGGGG
GAAATGTCCCGTAACACCGTGTGGACATCAGGGTTCGATGACTCCTCCGACTCCGCGCTCCTAGGGAACCTTAAGTCTCAAACCCC

3060

FUS

FUS-201

FUS-201

CTGCAGTGAGCTATGATGGTGCCTGTGAACAGCCACTGCATTCCAGCCTGGGCAGTGTGTTGAGGCCCATCTCAAAAACATAAA
GACGTCACCTCGATACTACCACGGACACTTGTTCGGTGACGTAAGGTTCGGACCCGTCACACAACCTCCGGGGTAGAGTTTTTGTATTT

3145

FUS

FUS-201

FUS-201

AAAAAAAAACAAAAACAAAAATGTTTATTGGTTTGTGATTCTGTTTCCATTTATTTTTCTTTGGCTTTTAATTTTTTTGACTCTTC
TTTTTTTTGTTTTTGTTTTTTACAAATAACCAAACACTAAGACAAAGGTAAATAAAAGAAACCGAAAATTAAAAAACTGAGAAG

3230

FUS

FUS-201

FUS-201

TTATTTTCCATCAGCATGAAAGAGAGCATATTTTCTAAAGGAAGAACCAGTTTTAGGCCAATTCTGAAATGGAGAAAATGGTTTT
AATAAAAGGTAGTCGTACTTTCTCTCGTATAAAAGATTTCTTCTTGGTCAAAATCCGGTTAAGACTTTACCTCTTTTACCAAAA

3315

FUS

FUS-201

FUS-201

GTTTGAAATGTATGAAATCATGTGATACATAAGGAGGTGGGATTTGCCCAAGGTCCTGAAGTGTAAC TAAGAAAGGTGGTTGT
CAAAC TTTTACATACTTTAGTACACTATGTATTCTCCACCCTAAACGGGGTTCCAGGACTTCACATTGATTCTTTCCACCAACA

3400

FUS

FUS-201

FUS-201

CCTGTAGATACTGCACGCACAGCTGCATATTACAGTGCTGTTAACAGGGATCCTTGGGCCTGGGTTTAGAGGGTGGTGCTGGAGA
GGACATCTATGACGTGCGTGTTCGACGTATAATGTCACGACAATTGTCCCTAGGAAACCGGACCCAAATCTCCCACCACGACCTCT

3485

FUS

FUS-201

FUS-201

TGGTGTGGGATTGGCGGGGTGAAATTGGAAC TGTACTAAAGAGTTGGTAGAAGTTGAAGCATTAAATTTAGGCTTTGAAAGGAG
ACCACAACCCTAACCGCCCCACTTTAACCTTGACATGATTTCTCAACCATCTTCAACTTCGTAATTTAAATCCGAAACTTTCTCTC

3570

FUS

FUS-201

FUS-201

GGTAACTATCTTTGCCTATGAGTTGCAACATCACTAACAGCTTCTGAGAGGCTGGCTTTATGAGTATAGGTATTATGTTTTCTTT
CCATTGATAGAAACGGATACTCAACGTTGTAGTGATTGTGCGAAGACTCTCCGACCGAAATACTCATATCCATAATACAAAAGAAA

3655

FUS

FUS-201

FUS-201

AACCCATTTCCTTACATTTTTCTCTTTCTGGTGGCTTTTGTGACTCCCTTTTTCTTATCCTGGTAGCAGGCTATGGAAGCTCAGTCA
TTGGGGTAAGGAATGTAAGAGAGAAAGGACCACCGAAAACACTGAGGGAAAAAGAATAGGACCATCGTCCGATACCTTGAGTCAGT

3740

FUS

FUS-201

FUS-201

65 70
T G Y G T Q S
ENSE00003599547

ACTCCCAGGGATATGGCTCGACTGGCGGCTATGGCAGTAGCCAGAGCTCCCAATCGTCTTACGGGCAGCAGTCCTCCTACCCTG
TGAGGGGTCCCTATACCGAGCTGACCGCCGATACCGTCATCGGTCTCGAGGGTTAGCAGAATGCCCGTCGTCAGGAGGATGGGAC

3825

FUS

FUS-201

FUS-201

T P Q G Y G S T G G Y G S S Q S S Q S S Y G Q Q S S Y P

ENSE00003599547

GCTATGGCCAGCAGCCAGCTCCCAGCAGCACCTCGGGAAGGTACGGTGGTGTGATGTCGGGGAAGGCTTGAAAAGAGGGGTGAA
CGATACCGGTCGTCGGTCGAGGGTCGTCGTGGAGCCCTTCCATGCCACCACAACACTACAGCCCTTCCGAACCTTTCTCCCCACTT

3910

FUS

FUS-201

FUS-201

100 105 110
G Y G Q Q P A P S S T S G S

ENSE00003599547

TTGATGAGGAATGATAAAGGGACCAGCAGTAGGAGCAGTTTCAGAGGTGTAATTGGGGTAGGGGAGCCTGTGTTGGGTACAGAGAA
AACTACTCCTTACTATTTCCCTGGTTCGTCATCCTCGTCAAGTCTCCACATTAACCCCATCCCCTCGGACACAACCCATGTCTCTT

3995

FUS

FUS-201

FUS-201

TGGACTCCACTAAAAGTGAAAAGGAAATTGGGGGCTATGCTGGGATTGTGATTGTGTTTTTTGTTTTCCTAGTTACGGTAG
ACCTGAGGTGATTTTCACTTTCTTTAACCCCGATACGACCCTAACACTAACACAAAAAACAAAAGGGATCAATGCCATC

4080

FUS

FUS-201

FUS-201

115
Y G S
ENSE000035...

CAGTTCTCAGAGCAGCAGCTATGGGCAGCCCCAGAGTGGGAGCTACAGCCAGCAGCCTAGCTATGGTGGACAGCAGCAAAGCTAT
GTCAAGAGTCTCGTCGTCGATACCCGTCGGGGTCTCACCCCTCGATGTCGGTTCGTCGGATCGATACCACCTGTCGTCGTTTCGATA

4165

FUS

FUS-201

FUS-201

S S Q S 120 S S Y G Q 125 P Q S G S Y S Q Q P 135 Y G G Q 140 Q Q S Y

ENSE00003537617

GGACAGCAGCAAAGCTATAATCCCCCTCAGGGCTATGGACAGCAGAACCAGTACAACAGCAGCAGTGGTGGTGGAGGTGGAGGTG
CCTGTCGTCGTTTTTCGATATTAGGGGGAGTCCCGATACCTGTCGTCCTTGGTCATGTTGTCGTCGTCACCACCACCTCCACCTCCAC

4250

FUS

FUS-201

145 150 155 160 165 170
G Q Q Q S Y N P P Q G Y G Q Q N Q Y N S S S G G G G G G

ENSE00003537617

FUS-201

GAGGTGGAGGTGAGATGTCTTCAGCTTTGTCTGCAGCCCATTTTCTTTTTCTTTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTTGCTC
CTCCACCTCCACTCTACAGAAGTCGAAACAGACGTCGGGTAAAAGAAAAAGAAAAAAAAAAAAAAAAAACTCTGCCTCAGAACCAG

4335

FUS

FUS-201

G G G

ENSE00003...

FUS-201

TGTCTCTGTTGCTGAGGCTGGAGTGCAGTGGCACAATCTCGGCTCACTGCAAGCTCCGCCTTCCGGGTTTCGCGCCAGTCTCCTGC
ACAGAGACAACGACTCCGACCTCACGTACCCTGTTAGAGCCGAGTGACGTTTCGAGGCGGAAGGCCCAAGCGCGGTCAGAGGACG

4420

FUS

FUS-201

FUS-201

CTCAGCCTCCCGAGTAGCTGGGACTACAGGCATCCGCCACCACGCCCGGCTAATTTTTTGTATTTTTAGTAGAGACGGGGTTTTCA
GAGTCGGAGGGCTCATCGACCCTGATGTCCGTAGGCGGTGGTGCGGGCCGATTAATAAACATAAAAAATCATCTCTGCCCAAAGT

4505

FUS

FUS-201

FUS-201

CCATGTTAGCCAGGATGGTTTTCGATCTCCTGACCTTGTGATCCGCCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAG
GGTACAATCGGTCCCTACCAAAGCTAGAGGACTGGAACACTAGGCGGGCGGAACCGGAGGGTTTTACGACCCTAATGTCCGCACTC

4590

FUS

FUS-201

FUS-201

CCACTGTGCCTGGTGTCTGCAGCCCATTTTCTATAAGGATTTGTATTCTCCTGTTTTAGCTTAAAAAGAGGGTTCTGTCTTGTTT
GGTGACACGGACCACAGACGTCGGGTAAAAGATATTCCTAAACATAAGAGGACAAAAATCGAATTTTTCTCCCAAGGACAGAAACAAA

4675

FUS

FUS-201

FUS-201

CCTAGCTGTCTTTTTACTTTCTTTTGTCTTCATTGCCTGGCACTTGTCAAACCTTTTCAAACCTTTTAGTGCTACTTTACAATC
GGATCGACAGAAAAATGAAAGAAAAACAGGAAGTAACGGACCGTGAACAGTTTGGAAAAAGTTTGGAAAAATCACGATGAAATGTTAG

4760

FUS

FUS-201

FUS-201

TTTTTGTTTTTTTTTTTAATCATTCTTTCTTTCTCACAGGTAACATATGGCCAAGATCAATCCTCCATGAGTAGTGTTGGTGGC
AAAAACAAAAAAAAAAATTAGTAAGAAAAGAAAAGAGTGTCCATTGATACCGGTTCTAGTTAGGAGGTACTCATCACCACCACCG

4845

FUS

FUS-201

175 N Y G Q 180 Q S S M 185 S S G G G
G N Y G Q D Q S S M S S G G G

FUS-201

AGTGGTGGCGGTTATGGCAATCAAGACCAGAGTGGTGGAGGTTGGCAGCGGTGGCTATGGACAGCAGGACCGTGGAGGCCGCGGCA
TCACCACCGCCAATACCGTTAGTTCTGGTCTCACCACCTCCACCGTCGCCACCGATACCTGTCGTCTGGCACCTCCGGCGCCGT

4930

FUS

FUS-201

190 S G G G Y 195 G N Q D Q 200 S G G G G 205 S G G Y G 210 Q Q D R G 215 G G R G

ENSE00001791812

FUS-201

GGGGTGGCAGTGGTGGCGGGCGGCGGGCGGGCGGGTGGTGGTTACAACCGCAGCAGTGGTGGCTATGAACCCAGAGGTCGTGGAGG
CCCCACCGTCACCACCGCCGCCGCCGCCGCCACCACCAATGTTGGCGTCGTCACCACCGATACTTGGGTCTCCAGCACCTCC

5015

FUS

FUS-201

220 R G G S G G G 225 G G G G G 230 G G Y N R 235 S S G G Y 240 E P R G R 245 G G

ENSE00001791812

FUS-201

TGGCCGTGGAGGCAGAGGTGGCATGGGGTAGGTGTCTCATGAGCCAGGGAGTATCTTTGGTGGGGAGTGTGGAGGATTGCATGAA
ACCGGCACCTCCGTCTCCACCGTACCCCATCCACAGAGTACTCGGTCCCTCATAGAAACCACCCCTCACACCTCCTAACGTA

5100

FUS

FUS-201

250 G R G G R G G M G 255
ENSE00001791812

FUS-201

TCTCCCTGAAGCCAGTCCCTAGTGCATGGTTAGTATTCTTGTGTCTAGGGATCTGTGAGGGCTTTGATTTGGGGGCAGTGA
AGAGGGACTTCGGTCAGGGATCACGTACCAAATCATAAGAACAACAGATCCCTAGACACTCCCGAAACTAAACCCCGTCACTGA

5185

FUS

FUS-201

FUS-201

TTCTTTTTACATCCCCATTTTATTTTTGTGAGAACTTGGGAGCCTGAACTCCCATCCATACCACTGAATAGAGATTTTGAAGTAAT
AAGAAAAATGTAGGGGTAAAATAAAAACACTCTTGAACCTCGGACTTGAGGGTAGGTATGGTGACTTATCTCTAAAACCTATTA

5270

FUS

FUS-201

FUS-201

GATACTTGTTCACAAAAAAGAAACCATACATAGATACGTATGGATTGGAGTCATTAATATCCTAGGCAAGAAACATGGAAGT
CTATGAACAAAGGTTTTTTTTCTTTGGTATGTATCTATGCATACCTAACCTCAGTAATTATAGGATCCGTTCTTTGTACCTTCA

5355

FUS

FUS-201

FUS-201

GAAGACTTCTTTCTCTGCAAGGGAAACCGATGATCCCCTCTGGGAAATAGTAGGGAACTTGGTATGTGTATTCCCATGTGTC
CTTCTGAAGAAAGAGACGTTCCCTTTGGCTACTAGGGTGAGGACCCTTTATCATCCCTTTGAACCATAACACATAAGGGGTACACAG

5440

FUS

FUS-201

FUS-201

CTCTAGGGAGTTGGTAATGGTTAACCTGACTTCAGCTTCCAGGAATTGGCTACTCTTCCCGTTTTTCTATAGTCATTTGAATCCAC
GAGATCCCTCAACCATTACCAATTGGACTGAAGTCTGAAGGTCCTTAACCGATGAGAAGGGCAAAAAGATATCAGTAAACTTAGGTG

5525

FUS

FUS-201

FUS-201

GAGCTTGATTTGCACTAATTTGACCGACATTGATTTTGTGTGTGACTTGGTTTTATGGGGCCAGCTGACTGAAGTAAGCAGACCTT
CTCGAACTAAACGTGATTAACCTGGCTGTAACATAAAACACACACTGAACCAAATACCCCGGTCGACTGACTTCATTTCGTCTGGAA

5610

FUS

FUS-201

FUS-201

TTGGGCAAAAATATGCTTTGACAGTGGTCTCCACCTATTTGTTCCACTGTCTGCCTTCCCCTGGTTACTTAAAATTCATCAGCT
AACCCGTTTTTATACGAAACTGTCACCAGAGGGTGGATAAACCAAGGTGACAGACGGAAGGGGACCAATGAATTTTAAGTAGTCGA

5695

FUS

FUS-201

FUS-201

TGTCCAACCTGGACCTTCTTTCCTTCTGCTGAAGTTGATTTGAAGTAAAACCTTAGATTTGATGTTAAAACAGTTGTCAAATCTG
ACAGGTTGACCTGGAAGAAAGGAAGGACGACTTCAACTAAACTTCATTTTGGAAATCTAAACTACAATTTTGTCAACAGTTTAGAC

5780

FUS

FUS-201

FUS-201

TTGGTAAATAAGATTTGAAGGACCCTACTCTGTCTCCCTTGAAAAAGGGGAGGAATGTCAGTGTTACTGTTTTTGGAAAAAGTAG
AACCATTTATTCTAAACTTCCTGGGATGAGACAGAGGGAACTTTTTCCCTCCTTACAGTCACAATGACAAAAACCTTTTTTCATC

5865

FUS

FUS-201

FUS-201

ATTTTTAAACCGAGTTTGGAAATGGTAAGTATGCAGAGGTGGGTGGGGGCAATCTCAAAAACGTGCAAAAATGAGGAAAAACAAA
TAAAAATTTGGCTCAAACCTTTACCATTACATACGTCTCCACCCACCCCGTTAGAGTTTTTGCACGTTTTTACTCCTTTTGT

5950

FUS

FUS-201

FUS-201

ATGAGGAAATGTGTGCGTGTGTTAATGCAAAACTTTAAAAAGAAAAACAACCTGTTATGTGACTGTTAACTTGCTCTGCATTTTA
TACTCCTTTACACACGCACACAAAATTACGTTTTGAAATTTTTCTTTTTGTTGACAATACACTGACAATTGAACGAGACGTAAAAT

6035

FUS

FUS-201

FUS-201

TGTGCCACAGGTATGAAAGGTGACATTGCAAAATACTCCGCTCTTCTCGCAGTGTAGAAGGGGTGACCCCGGGGGTTGGGGGAGA
ACACGGTGTCCATACTTTCCACTGTAACGTTTTATGAGGCGAGAAGAGCGTACATCTTCCCCACTGGGGCCCCCAACCCCTCT

6120

FUS

FUS-201

FUS-201

TCAAAAACAGCTCAGTAGTTAGGACAGAGCTTAGCTAAGTTTGTCTTGCTTTAAGGGGAAGTTGCCTTTGGTTTTGACTTTTTAT
AGTTTTTGTGCGAGTCATCAATCCTGTCTCGAATCGATTCAAACAGAACGAAATTCCCCTTCAACGGAAACCAAACTGAAAAATA

6205

FUS

FUS-201

FUS-201

GGAATGGGGTTGGGTCTGCTTGCTGCTTTCAAAGCAAAAACCACAAAAATGTGTTCAAGGCTACCCCAGCCTGGTGTGAAATGTC
CCTTACCCCAACCCAGACGAACGACGAAAGTTTCGTTTTTGGTGTTTTTACACAAGTTCCGATGGGGTCGGACCACACTTTACAG

6290

FUS

FUS-201

FUS-201

TTCTGGGTAAATTGGGGTAGGGTTTTAAACCAACTACTTGGTTGTCAACCACTTGCACAAAGAGGAAAAAAAACATCTGCTCC
AAGACCCATTTAACCCCATCCCAAAAATTTGGTTGATGAACCAACAGTTGGTGAACGCTGTTCTCCTTTTTTTTTGTAGACGAGG

6375

FUS

FUS-201

FUS-201

ATCGGAAGAACGACCAAGGAAAATGGGTTATTTTTTTCCAGAGGAAATAGATAACGTAACCTTTTAAAGCAAAATCTTTATAAA
TAGCCTTCTTGCTGGTTCCTTTTACCCAATAAAAAAAGGTCTCCTTTATCTATTGCATTGGAAAATTTTCGTTTTAGAAATATTT

6460

FUS

FUS-201

FUS-201

CTGTGTCTGAGAAATTGCACACGTGTGTGTGACATGCTCAAAGGTGAGACAAGGGGTGGTTCAGGAAGGGATGTATTTTAGTAGCC
GACACAGACTCTTTAACGTGTGCACACACACTGTACGAGTTTCCAGTCTGTTCCCCACCAGTCTTCCCTACATAAAATCATCGG

6545

FUS

FUS-201

FUS-201

ACTTGTATCTTTTTCCAAAAACACCTACCCATGTTTGGGGAATGTTAAACAACCAAAAAACAACCTTTTGTAGCCGTTGGAAG
TGAACATAGAAAAAGGTTTTTGTGGATGGGTACAAACCCCTTACAATTTGTTTTAGTTTTTTGTTGGAAAAACATCGGCAACCTTC

6630

FUS

FUS-201

FUS-201

CTTCATGTCCTTTCTTCTAACTTGTCTTCTCCAGCGGAAGTGACCGTGGTGGCTTCAATAAATTTGGTGGTAAGTGAACAGAGTT
GAAGTACAGGAAAAGAAGATTGAACAGAAGAGGTCGCCTTCACTGGCACCACCGAAGTTATTTAAACCACCATTCACTTGTCTCAA

6715

FUS

FUS-201

G S D R G G F N K F G
260 265

ENSE00003521089

FUS-201

TCCAAAATTCCTCAACTCCCAGCAATGCTTTGTCTGATTGTTTCAATTTGCAGATGTCTTAGCGTGTTAATTTAAATGTCAAAGGTTT
AGGTTTTAAGGGTTGAGGGTCGTTACGAAACAGACTAACAAGTAAACGTCTACAGAATCGCACAATTAATTTACAGTTTCCAAA

6800

FUS

FUS-201

FUS-201

TGAGGTGTCCAGAACCACCTCCAGAAAAGGGGTAGGGTAGAATGCCACCTGTTGCCTGGTGTGTGCTAACCTGGAGCAGGTAGGGG
ACTCCACAGGTCTTGGTGGAGGTCTTTCCCATCCCATCTTACGGTGGACAACGGACCACACACGATTGGACCTCGTCCATCCCC

6885

FUS

FUS-201

FUS-201

TAAGACTCAATAGTCATCTTTTACCAAATGGGTTTGCCCAGGTTAATAAGAGGGGTCTAGTAGGCCTTGGACTGGGCCGTTGCC
ATTCTGAGTTATCAGTAGAAAATGGTTTACCCAAACGGGGTCCAATTATTCTCCCCAGATCATCCGGAACCTGACCCGGCAACGG

6970

FUS

FUS-201

FUS-201

ACACCTGGCACTTAGTGACCATCATCATGAGAACTGGAGAGTGCGTGCTGGAACACGTGGTGCCATCTTGGCTTTAGGATCCTT
TGTGGACCGTGAATCACTGGTAGTAGTACTCTTTGACCTCTCACGCACGACCTTGTGCACCACGGTAGAACCGAAATCCTAGGAA

7055

FUS

FUS-201

FUS-201

TTGATCGTTGTGTCCAAGGCTTGTGTGTGTGTGAGTGTGTGGGAGACAACCTCCGAATGTTTAATTTCTGGAAGAGGGATGTAACAT
AACTAGCAACACAGGTTCCGAACACACACACACTCACACACCTCTGTTGAGGCTTACAAATTAAGACCTTCTCCCTACATTGTA

7140

FUS

FUS-201

FUS-201

TGCCCTGAGGATGGTGAAGTTGGTATACATTTATAAAGTACGGAATGGTGTCAATGAATGCAATTCTATGTATATGGACTTAACT
ACGGGACTCCTACCACTTCAACCATATGTAAATATTTTCATGCCTTACCACAGTTACTTACGTTAAGATACATATACCTGAATTGA

7225

FUS

FUS-201

FUS-201

GAGATGGGCAAATAGAAACTAGCTCTGGGAAGGAACATGTGCACTACTTCAAGAAAGATTGGAAGCATGTGTGGCTCATGGGAAA
CTCTACCCGTTTATCTTTGATCGAGACCCTTCCTTGTACACGTGATGAAGTTCTTTCTAACCTTCGTACACACCCGAGTACCCTTT

7310

FUS

FUS-201

FUS-201

TAACCAGGTCTTAAACAGCACAAACTGAATTCGTGGACCAGGAAGGTCTTAAACAGCACAAACTGAATTCATGGAAAAATGACAA
ATTGGTCCAGAATTTGTCGTGTTTGACTTAAGCACCTGGTCCTTCCAGAATTTGTCGTGTTTGACTTAAGTACCTTTTTACTGTT

7395

FUS

FUS-201

FUS-201

ATTTGAGAAGTCTCCAGTAAGCTGGAACTTTTCTGGTTTTGGTTAACAAAAGGTTTTCTTGATTTGTTTCAAGATTTAAAGCCAAA
TAAACTCTTCAGAGGGTCATTCGACCTTGAAAAGACCAAACCAATTGTTTTCCAAAGAACTAAACAAAGTTCTAAATTTTCGGTTT

7480

FUS

FUS-201

FUS-201

GGTGTGGGTTTCATGACTTAGGTGTCATTGCGTGTGGGTACAATATTTATATATGGCGAATTCAGATAAACATTGGTCAAAGATGG
CCACACCCAAGTACTGAATCCACAGTAACGCACACCCATGTTATAAATATATACCGCTTAAGTCTATTTGTAACCAGTTTCTACC

7565

FUS

FUS-201

FUS-201

TCTCTGGAAAAACAAAATAGAGGCTGCATTACGGAAATAAGATTTCTGGTCTGTTCCCTGGGACATGCTTAAAAAATACAATAGC
AGAGACCTTTTTGTTTTATCTCCGACGTAATGCCTTTATTCTAAAGACCAGACAAGGGACCCTGTACGAATTTTTTATGTTATCG

7650

FUS

FUS-201

FUS-201

TATTATGTATGGTTTTTATTTTCATGTGGTTTTCGGGGAAACAACACGGTTTTAAGGATGGTTTTCTAAAGATGAAATTA AAAATTG
ATAATACATACCAAAAATAAAAAGTACACCAAAGCCCTTTGTTGTGCCAAAATTCCTACCAAAGATTTCTACTTTAATTTTTAAC

7735

FUS

FUS-201

FUS-201

TTCCACAAGGGTTAAGTGTCTGGTGGTAAAGTTGGGAGAAACTGGATGGATGCACATCGCATGGCTGGTGGCGAGCCCATCTCTC
AAGGTGTTCCCAATTCACAGACCACCATTTCAACCCTCTTTGACCTACCTACGTGTAGCGTACCGACCACCGCTCGGGTAGAGAG

7820

FUS

FUS-201

FUS-201

TTCTCTCGGGTGAGAGAACCAGGCAAGCTGAGTTGGTTTGTTCACCTTAATGGGTCTCCGTTTCCCCTGCCACCTGTGCTGAGG
AAGAGAGCCCACTCTCTTGGCCCGGTTGACTCAACCAAAACAAGTGAAATTACCCAGAGGCCAAAGGGGACGGTGGACACGACTCC

7905

FUS

FUS-201

FUS-201

ACATTTCCCAGCCTGAGCTGGGGGAGGCAGCATTGCTGAAGTGTGGAGTTGTCTCTGTGGAGACTCAAGTTACAGATCTTAAGG
TGTAAGGGTCGGACTCGACCCCTCCGTCGTAACGACTTCACACCTCAACAGAGACACCTCTGAGTTCAATGTCTAGAATTCC

7990

FUS

FUS-201

FUS-201

GGCCTGCCTAGAATTTTCTCCTCTGGGCAGGCGACCCAGGAAAGGGTTTGGAGTGAGGCTGTGAGCACTTACTTGATATTTTACA
CCGGACGGATCTTAAAAGAGGAGACCCGTCGCTGGGTCTTTCCCAAACCTCACTCCGACACTCGTGAATGAACTATAAAATGT

8075

FUS

FUS-201

FUS-201

AGTTTGGATTTGGTGTAAATTTTTTCTTGTCCGTTTTTCTGTTGACTAACGGCTCATCTTTTCTTGTTTTTGTTTTTTTT
TCAAACCTAAACCACAATTAATAAAGGAACAGGCAAAAAAGGACAACCTGATTGCCGAGTAGAAAAGGAACAAAAACAAAAAAA

8160

FUS

FUS-201

FUS-201

TTGTTCTTTTTTCCATGTCCTAAAGGCCCTCGGGACCAAGGATCACGTCATGACTCCGGTGAGTTCACACGTGGTGGCATGAA
AACAAAGAAAAAAGGTACAGTGATTTCCGGGAGCCCTGGTTCCTAGTGCACTACTGAGGCCACTCAAGTGTGCACCACCGTACTT

8245

FUS

FUS-201

G P R D Q G S R H D S
ENSE00003535451

FUS-201

AAGAGTGGCTAAAGTGGTATCAAGACTGCCTGGATGTTCTTTGAAACTATTATAAAAAGGAAACTGAAAAAATGGGGATAGAGA
TTCTCACCGATTTACCATAGTTCTGACGGACCTACAAGAACTTTGATAATATTTTTCTTTGACTTTTTTTACCCCTATCTCT

8330

FUS

FUS-201

FUS-201

AGGAAGGGAGTTAGGTGTGTCCTTAGTTAGCAGTGAGAAATATTTGTTACGAAGTATTTCTCAGAAATACCTGGCTTGTGGGTTCTCCTTCCCTCAATCCACACAGGAATCAATCGTCACTCTTCATAAAACAATGCTTCATAAAGAGTCTTTATGGACCGAACACCCAAG

8415

FUS

FUS-201

FUS-201

CACCCCCAGTGATTTAGGTCTGAGAGGACCCTGAAAATCTACCTTTCTAACAAGTCCCCAGTGATGCTGATGCGTCTGGACCACAGTGGGGGTCACTAAATCCAGACTCTCCTGGGACTTTTAGATGGAAAGATTGTTTCAGGGGTCACTACGACTACGCAGACCTGGTGT

8500

FUS

FUS-201

FUS-201

CTCAGATGGTTTACAGCAGTGGTTCTTTCAAATGTGGATCATGTCCAAGTTGGTGAACAAAAGTGTGAAAGACCTGACCACATGAGTCTACCAAATGTCGTCACCAAGAAAGTTTACACCTAGTACAGGTTCAACCACCTGTTTTGATCACTTTCTGGACTGGTGT

8585

FUS

FUS-201

FUS-201

GAAGTAAAGCATTGAACTCCTGTTTAGGTTGTATTGATGTTTGTGTAAGTATTGAAATGTAAAATGGGTTTCTTATTTAATTCGCTTCATTTTCGTAACCTTGAGGACAAATCCAACATAACTACAAACACATGATCTAAACTTACATTTTACCCAAAGAATAAATTAAGC

8670

FUS

FUS-201

FUS-201

GGGACCTTCAACTGAAAAGTTGATAAACTGATGGACTTTTCTGTGTGGTCTTGTGGGCATTTCACTCCTGAGCCCTGGTTTCCCTGGAAGTTGACTTTCAACTATTTATGACTACCTGAAAAGACACACCAGAACAACCCGTAAGTGAGGACTCGGGACCAAAGG

8755

FUS

FUS-201

FUS-201

ATACTGTATACTGGGTGTTAACATGTTTCAAAGGATAATTGTCAAAGTGAATCTGAAATTTATCAGCATGGCTGGCATATAGGGAATATGACATATGACCCACAATTGTACAAAGTTTCTATTAACAGTTTGACTTAGACTTTAAATAGTCGTACCGACCGTATATCCCT

8840

FUS

FUS-201

FUS-201

CTCAAAGGGATGTGGATTTCTTTTTAGTTGCTTCCATAAACCAAATGATACCAGTTGCTTGATGGATACTAGGTGCTTTAGGTGAGTTTTCCCTACACCTAAAGAAAAATCAACAGAAGGTATTTGGTTTACTATGGTCAACGAACCTACCTATGATCCACGAAATCCA

8925

FUS

FUS-201

FUS-201

TTTTTCTGTGTTTTTTATTTTACCTTTTTCACATTTTGCATTTTCTCTGTTCAACAAGCAGAACAGGATAATTCAGACAACAACAC
AAAAAGGACACAAAAAATAAAATGGAAAAGTGTAACGTAAGAGACAAAGTTGTTTCGTCTTGTCTATTAAAGTCTGTTGTTGTG

9010

FUS

FUS-201

E Q D N S D N N T
ENSE00003524436

FUS-201

CATCTTTGTGCAAGGCCTGGGTGAGAATGTTACAATTGAGTCTGTGGCTGATTACTTCAAGCAGATTGGTATTATTAAGGTACTT
GTAGAAACACGTTCCGGACCCACTCTTACAATGTTAACTCAGACACCGACTAATGAAGTTCGTCTAACCATATAAATTCATGAA

9095

FUS

FUS-201

I F V Q G L G E N V T I E S V A D Y F K Q I G I I K

ENSE00003524436

FUS-201

GTGGAGAGGAGTGGGAGCTTTCTGTCAAGTGTGTTAGGCTTGTGGATTTTACACATTAGTAAAAGCAAGTCTTTAATGGTTGCCAG
CACCTCTCCTCACCTCGAAAAGACAGTCACAACATCCGAACACCTAAAGTGTGTAATCATTTTCGTTTCAGAAATTACCAACGGTC

9180

FUS

FUS-201

FUS-201

CAGTAAAAACAAGTCTTAGTGGTTGTTGCCAGCTTAATTTGTTGAGGAAAGAGCCTTAGTACTGTTTTCTAAAAGAGAAGTTCT
GTCATTTTGTTCAGAATCACCAACAACGGTTCGAATTAACAACCTCCTTCTCGGAATCAATGACAAAAGATTTTCTCTTCAAGA

9265

FUS

FUS-201

FUS-201

ATCTTAACACAAAAAGTATAACTTATCAGAGTACCCTAAACTCTTGAGATTTGTAAGTACTCTATAGTAACTTTTAGTTTTATCTTTCA
TAGAATTGTGTTTTTCATATTGAATAGTCTCATGGGATTTGAGAAGTCTAAACATGAGATATCATTGAAAATCAAAAATAGAAAGT

9350

FUS

FUS-201

FUS-201

ATATTGGAGTGAGAGACAGTTTTCTTTAATGGAGGTTTACATGTGAGGTAGGAAGAAGTAACTGGGAAGAGGGGAGCTGAAGTTT
TATAACCTCACTCTCTGTCAAAAAGAAATTACCTCCAAATGTACACTCCATCCTTCTTCATTGACCCTTCTCCCCTCGACTTCAAA

9435

FUS

FUS-201

FUS-201

GGGAATTATAAACCTCATGTTCTAGAGGAAGAAGATGGAAAGGGAGTACTGTAGCCTTTAAAATTGATGTTACCTCATTTTTGCTT
CCCTTAATATTTGGAGTACAAGATCTCCTTCTTCTACCTTTCCCTCATGACATCGGAAATTTTAACTACAATGGAGTAAAACGAA

9520

FUS

FUS-201

FUS-201

TCTTCAGACAAACAAGAAAAACGGGACAGCCCATGATTAATTTGTACACAGACAGGGAAACTGGCAAGCTGAAGGGAGAGGGCAACG
AGAAGTCTGTTTGTCTTTTGCCTGTGCGGGTACTAATTAACATGTGTCTGTCCCTTTGACCGTTCGACTTCCCTCTCCGTTGC

9605

FUS

FUS-201

315 320 325 330 335
T N K K T G Q P M I N L Y T D R E T G K L K G E A T

ENSE00003534484

FUS-201

GTCTCTTTTGTGACCCACCTTCAGCTAAAGCAGCTATTGACTGGTTTGTGATGGTATGTATGAGAAGGCTGGCAGAGGTGGGGCTG
CAGAGAAAACCTACTGGGTGGAAGTCGATTTTCGTCGATAACTGACCAAACCTACCATACATACTCTTCCGACCGTCTCCACCCCGAC

9690

FUS

FUS-201

340 345 350 355
V S F D D P P S A K A A I D W F D

ENSE00003534484

FUS-201

GGGATATAGGGCAGCAAGCCTTAGGAAACAAGCCATAGTTTTGAGGGTTCTTTTGTAGTCTTCCAACACTTACTTTAGCTGCGGTTT
CCCTATATCCCGTCGTTTCGGAATCCTTTGTTCGGTATCAAACCTCCAAGAAAACCTCAGAAGGTTGTGAATGAAATCGACGCCAAA

9775

FUS

FUS-201

FUS-201

CAGGTAGTCTCATTTTTGCTTATGTGTCAGCAGATTATAAACCATTTGAGAAAAGGCACGCTTCTTGTATTTTTCGGATTAATGT
GTCCATCAGAGTAAAAACGAATACACAGTCGTCTAATATTTGGTAAACTCTTTCCGTGCGAAGAGAACATAAAAAGCCTAATTACA

9860

FUS

FUS-201

FUS-201

GTCTTGCATTTAAAGTCTGTTGATGATTTTTGTTTCTCTAGGTAAGAATTCTCCGGAAATCCTATCAAGGTCTCATTTGCTAC
CAGAACGTAAATTTAGACAACTACTAAAAAACAAAGAGATCCATTTCTTAAGAGGCCTTTAGGATAGTTCCAGAGTAAACGATG

9945

FUS

FUS-201

360 365 370
G K E F S G N P I K V S F A T

ENSE00003653971

FUS-201

TCGCCGGGCAGACTTTAATCGGGGTGGTGGCAATGGTCGTGGAGGCCGAGGGCGAGGAGGTGAGGAGCTACCTGCTAGTGGTGCA
AGCGGCCCGTCTGAAATTAGCCCCACCACCGTTACCAGCACCTCCGGCTCCCGCTCCTCCTCCTCGATGGACGATCACCACGT

10,030

FUS

FUS-201

375 380 385
R R A D F N R G G G N G R G G R G R G

ENSE00003653971

FUS-201

GAGGGGTAATGGGGAGAGTGCAGAAGATGGTAAAGGCTTGCATGGAATGGGTTAGATTTACCAAACCTGGAGAGGGAGCAGACCC
CTCCCCATTACCCCTCTCACGTCTTCTACCATTTCCGAACGTACCTTACCCAATCTAAATGGTTTTGAACCTCTCCCTCGTCTGGG

10,115

FUS

FUS-201

FUS-201

ATACCTGGTCTATCTGCATTAGGACCCATGGGCCGTGGAGGCTATGGAGGTGGTGGCAGTGGTGGTGGTGGCCGAGGAGGATTTCT
TATGAACCAGATAGACGTAATCCTGGGTACCCGGCACCTCCGATACCTCCACCACCGTCACCACCACCACCGGCTCCTCCTAAAG

10,200

FUS

FUS-201

390 P M G R G G Y G G G S G G G R G G F
400 405 410

ENSE00003604625

FUS-201

CCAGTGGAGGTGGTGGCGGTGGAGGACAGCAGCGAGCTGGTGAAGTGTCTAATCCGTGAGTGAACTTAATTTTTTTCT
GGTCACCTCCACCACCGCCACCTCCTGTCGTCGCTCGACCACTGACCTTCACAGGATTAGGCACTCACTTTGAATTAATAAAGA

10,285

FUS

FUS-201

115 120 125 130
P S G G G G G G Q Q R A G D W K C P N P

ENSE00003604625

FUS-201

TAGTTCTCTTGCATGCGTGCTCTTTGATATATTGGTACTGAGGTATGTGCGTGTTTTCCAAAGAAGTAAATGTCAAGGCCACACT
ATCAAGAGAACGTACGCACGAGAACTATATAACCATGACTCCATACACGCACAAAAGGTTTCTTCATTTACAGTTCCGGTGTGA

10,370

FUS

FUS-201

FUS-201

GTTGGGGTCAGATTTAGCCAAAAGCTTACCTAGGTAAGGTTGATGTAATGGGAAAGGTAATGGATTGGGTTTCAGTAATACTGATT
CAACCCAGTCTAAATCGGTTTTTCGAATGGATCCATTCCAACCTACATTACCCTTTCCATTACCTAACCCAAGTCATTATGACTAA

10,455

FUS

FUS-201

FUS-201

TTTGTTCCTGACTCTGAGAAGCAAGCCGTTTTGTCTTTCTGAAGCTTCAGTTTTCTCACTGTATCTCTAAAGTCACCGTAGTTTC
AAACAAGGACTGAGACTCTTCGTTTCGGCAAAACAGAAAGACTTCGAAGTCAAAGGAGTGACATAGAGATTTTCAGTGGCATCAAAG

10,540

FUS

FUS-201

FUS-201

TTCTAGTTCTAGGTCTTGCCATTCCCCATCGCTCCAGACTGATTGTCTTCTTTCTCCTTAGCACCTGTGAGAATATGAACTT
AAGGATCAAGATCCAGAACGGATAAGGGGTAGCGAGGTCTGACTAACAGAAGGAAAGAGGAATCGTGGACACTCTTATACTTGAA

10,625

FUS

FUS-201

435
T C E N M N F

ENSE00003494295

FUS-201

CTCTTGGAGGAATGAATGCAACCAGTGTAAGGCCCTAAACCAGATGGCCCAAGGAGGGGGACCAGGTGGCTCTCACATGGGTAAG
GAGAACCCTCCTTACTTACGTTGGTCACATTCCGGGGATTGGTCTACCGGGTCTCCCCCTGGTCCACCGAGAGTGTACCCATTC

10,710

FUS

FUS-201

440 445 450 455 460
S W R N E C N Q C K A P K P D G P G G G P G G S H M

ENSE00003494295

FUS-201

PCR Forward

GGGAACATAGGGGAATGGGA

AAAGGCAGACCTGGTGCTAGGGAGCTGGGACCAAAGAATCCTTAATTTTTTCAGCGGGGAGGCTCGGGGAACATAGGGGAATGGGA
TTTCCGTCTGGACCACGATCCCTCGACCCTGGTTTTCTTAGGAATTA AAAAAGTCGCCCTCCGAGCCCTTGTATCCCCTTACCCT

10,795

FUS

FUS-201

FUS-201

PCR Forward

ATATG

ATATGATAGATCTTGTTCCTTAGGGGGTAACACTACGGGGATGATCGTCGTGGTGGCAGAGGAGGCTATGATCGAGGCGG
TATACTATCTAGAACAAGAAAACAGGATCCCCATTGATGCCCTACTAGCAGCACCACCGTCTCCTCCGATACTAGCTCCGCC

10,880

FUS

FUS-201

465 470 475 480
G G N Y G D D R R G G R G G Y D R G G
ENSE00003637572

FUS-201

CTACCGGGCCGCGGGGACCGTGGAGGCTTCCGAGGGGGCCGGGGTGGTGGGGACAGAGGTGGCTTTGGCCCTGGCAAGATG
GATGGCCCCGGCGCCGCCCTGGCACCTCCGAAGGCTCCCCGGCCCCACCACCCTGTCTCCACCGAAACGGGACCGTTCTAC

10,965

FUS

FUS-201

485 490 495 500 505 510
Y R G R G G D R G G F R G G R G G D R G G F G P G K M
ENSE00003637572

FUS-201

GATTCAGGTAAGACTTTAAATCAGAATAAAAAAGTAGAGCAGTTGAACAGAGGCCATAGGATAACAGGGTTTTGTTGAGAAAAGT
CTAAGGTCCATTCTGAAATTTAGTCTTATTTTTTTCATCTCGTCAACTTGTCTCCGGTATCCTATTGTCCAAAACAACCTCTTTCA

11,050

FUS

FUS-201

D S R
ENSE0000...

FUS-201

GGTTTCATTTTGGAGGCTAGGTGGAAAGACCTGAGGTTGTAACCAGTAGTGGAGAGGGAAGGAAAATTAACCTCAGGGGGAGTGAA
CCAAAAGTAAAACCTCCCGATCCACCTTCTGGACTCCAACATTGGTTCATCACCTCTCCCTTCTTTTAATTGAGTCCCCCTCACTT

11,135

FUS

FUS-201

FUS-201

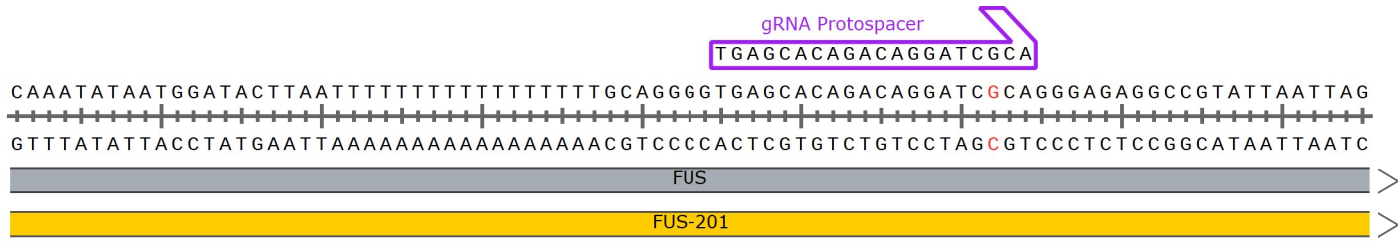
TCTGTAGACCCACTTGAGATAAGATACTCGCTGGGTTAGGTAGGAGGGGCAGATAGGATATCTAGGCTTGGAGAGGCTGGTAACT
AGACATCTGGGTGAACTCTATTCTATGAGCGACCCAATCCATCCTCCCGTCTATCCTATAGATCCGAACCTCTCCGACCATTGA

11,220

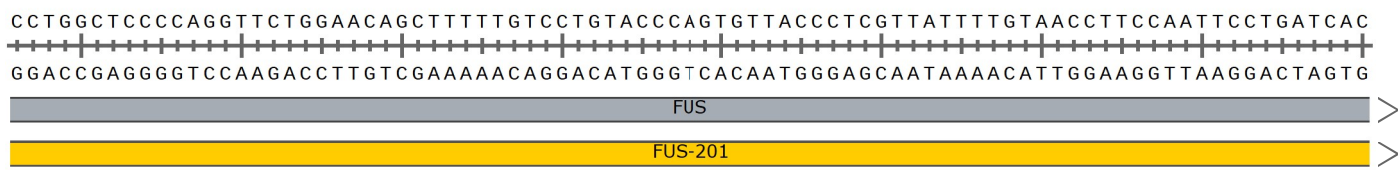
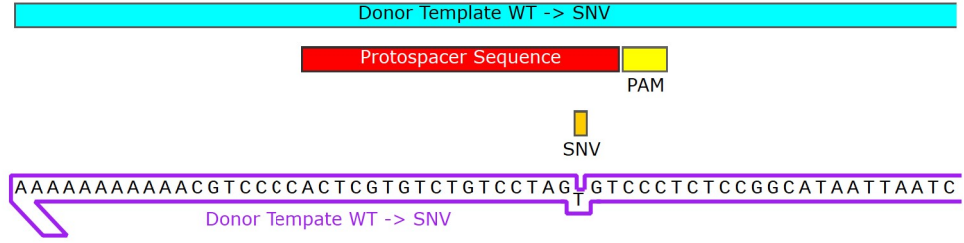
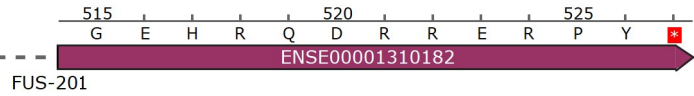
FUS

FUS-201

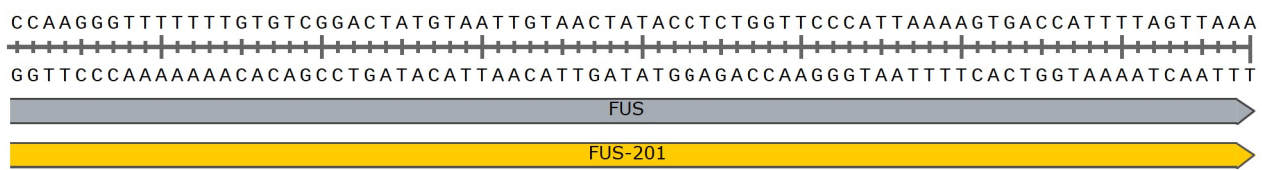
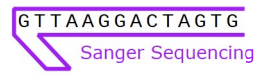
FUS-201



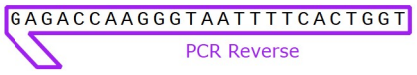
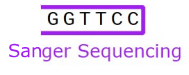
11,305





















11,390



3'
 11,468
 5'



Feature	Location	Size	Type
✓ FUS	1 .. 11,468	11,468 bp	gene
/note	= gene ENSG0000089280 Protein coding		
FUS-209	1 .. 11,465	11,465 bp	prim_transcript
/note	= primary transcript ENST0000056605 Nonsense mediated decay		
✓ FUS-201	2 .. 11,468	11,467 bp	prim_transcript
/note	= primary transcript ENST00000254108		
FUS-202	2 .. 11,465	11,464 bp	prim_transcript
/note	= primary transcript ENST00000380244		
FUS-205	2 .. 3213	3212 bp	prim_transcript
/note	= primary transcript ENST00000487045 Retained intron		
FUS-206	13 .. 11,465	11,453 bp	prim_transcript
/note	= primary transcript ENST00000487509 Retained intron		
FUS-210	14 .. 11,438	11,425 bp	prim_transcript
/note	= primary transcript ENST00000568685		
✓ FUS-201	78 .. 11,301	11,224 bp	CDS
▶ 15 segments = 1581 bp			
/note	= coding sequence ENSP00000254108		
/translation	= MASN,,DYTQ QATQS,,YGAYPTQPGQGYSQQSSQPYGQQSYSGYSQSTDTSGYGQSSYSSYGQSQN,,TGYGTQSTPQGYGSTGGYGSSQSS QSSYGQSSYPGYGQQPAPSSTSGS,,YGSSSQSSSYGQPQSGYSQQPSYGGQQQSYGQQQSYNPPQGYGQQNQYNSSSGGGGGGGGGG, ,GNYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQQDRGGRGRGGSGGGGGGGGGGYNRSSGGYEPGRGGGRGGRRGGMG,,GSDRG GFNKF,,GPRDQGSRHDS,,EQDNSDNNTIFVQGLGENTVIESVADYFKQIGIIK,,TNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAI DWFD,,GKEFSGNPIKV SFATRRADFNRGGGNGRGGRRGR,,GPMGRGGYGGGGSGGGRRGFPSSGGGGGGGQQRAGDWKCPNP,,TCENMNF SWRNFNQCKAPKBDGSGGPGSSHM,,GGNYGDDRRGGRRGGYDRGGYRGRGGDRGGFRGGRRGGDRGGFGPGKMDSR,,GEHRQDRRERPY*		
FUS-202	78 .. 11,301	11,224 bp	CDS
▶ 15 segments = 1578 bp			
/note	= coding sequence ENSP00000369594		
/translation	= MASN,,DYTQ QATQS,,YGAYPTQPGQGYSQQSSQPYGQQSYSGYSQSTDTSGYGQSSYSSYGQSQN,,SYGTQSTPQGYGSTGGYGSSQSSQ SSYGQSSYPGYGQQPAPSSTSGS,,YGSSSQSSSYGQPQSGYSQQPSYGGQQQSYGQQQSYNPPQGYGQQNQYNSSSGGGGGGGGGG,,G NYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQQDRGGRGRGGSGGGGGGGGGGYNRSSGGYEPGRGGGRGGRRGGMG,,GSDRG GFNKF,,GPRDQGSRHDS,,EQDNSDNNTIFVQGLGENTVIESVADYFKQIGIIK,,TNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAI DWFD,,GKEFSGNPIKV SFATRRADFNRGGGNGRGGRRGR,,GPMGRGGYGGGGSGGGRRGFPSSGGGGGGGQQRAGDWKCPNP,,TCENMNF SWRNFNQCKAPKBDGSGGPGSSHM,,GGNYGDDRRGGRRGGYDRGGYRGRGGDRGGFRGGRRGGDRGGFGPGKMDSR,,GEHRQDRRERPY*		
FUS-210	78 .. 11,301	11,224 bp	CDS
▶ 15 segments = 1584 bp			
/note	= coding sequence ENSP00000455282		
/translation	= MASN,,DYTQ QATQS,,YGAYPTQPGQGYSQQSSQPYGQQSYSGYSQSTDTSGYGQSSYSSYGQSQN,,TGYGTQSTPQGYGSTGGYGSSQSS QSSYGQSSYPGYGQQPAPSSTSGS,,YGSSSQSSSYGQPQSGYSQQPSYGGQQQSYGQQQSYNPPQGYGQQNQYNSSSGGGGGGGGGG, ,GNYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQQDRGGRGRGGSGGGGGGGGGGYNRSSGGYEPGRGGGRGGRRGGMG,,GSDRG GFNKF,,GPRDQGSRHDS,,AEQDNSDNNTIFVQGLGENTVIESVADYFKQIGIIK,,TNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAA IDWFD,,GKEFSGNPIKV SFATRRADFNRGGGNGRGGRRGR,,GPMGRGGYGGGGSGGGRRGFPSSGGGGGGGQQRAGDWKCPNP,,TCENMNF SWRNFNQCKAPKBDGSGGPGSSHM,,GGNYGDDRRGGRRGGYDRGGYRGRGGDRGGFRGGRRGGDRGGFGPGKMDSR,,GEHRQDRRERPY*		
	2374 .. 3148	775 bp	gene
/note	= gene ENSG00000260304 lncRNA		
	2374 .. 3148	775 bp	prim_transcript
/note	= primary transcript ENST00000564743 lncRNA		
FUS-207	3413 .. 4261	849 bp	prim_transcript
/note	= primary transcript ENST00000487974 Retained intron		
FUS-213	4943 .. 7108	2166 bp	prim_transcript
/note	= primary transcript ENST00000570090 Retained intron		
FUS-203	5362 .. 10,965	5604 bp	prim_transcript
/note	= primary transcript ENST00000474990 protein_coding_CDS_not_defined		

Feature		Location	Size			Type
FUS-211		8015 .. 9983	1969 bp			prim_transcript
/note	=	primary transcript ENST00000568901 Retained intron				
FUS-208		8330 .. 9558	1229 bp			prim_transcript
/note	=	primary transcript ENST00000564766 Retained intron				
FUS-212		10,079 .. 11,468	1390 bp			prim_transcript
/note	=	primary transcript ENST00000569760 Retained intron				
FUS-204		10,236 .. 11,421	1186 bp			prim_transcript
/note	=	primary transcript ENST00000483853 Retained intron				
✓	Donor Template WT -> SNV	11,247 .. 11,346	100 bp			misc_feature
✓	Protospacer Sequence	11,265 .. 11,284	20 bp			misc_feature
✓	SNV	11,282 .. 11,282	1 bp			misc_feature
/note	=	WT = G SNV = A				
✓	PAM	11,285 .. 11,287	3 bp			misc_feature

Primer	Length	Binding Sites	Tm	Date Added
✓ PCR Forward	25-mer	10,776 .. 10,800	58°C	Jan 11, 2023
/sequence = GGGAACATAGGGGAATGGGAATATG 48% GC / 7884.2 Da				
✓ Donor Tempate WT -> SNV	100-mer	11,247 .. 11,346	77°C	Jan 11, 2023
/sequence = GGTACAGGACAAAAAGCTGTTCCAGAACCTGGGGAGCCAGGCTAATTAATACGGCCTCTCCCTGTGATCCTGTCTGTGCTCACCCCTG 49% GC / 13078.0 Da				
✓ gRNA Protospacer	20-mer	11,265 .. 11,284	59°C	Jan 11, 2023
/sequence = TGAGCACAGACAGGATCGCA 55% GC / 6160.1 Da				
✓ Sanger Sequencing	20-mer	11,377 .. 11,396	55°C	Jan 11, 2023
/sequence = CCTTGGGTGATCAGGAATTG 50% GC / 6188.1 Da				
✓ PCR Reverse	25-mer	11,433 .. 11,457	59°C	Jan 11, 2023
/sequence = TGGTCACTTTTAATGGGAACCCAGAG 44% GC / 7721.1 Da				