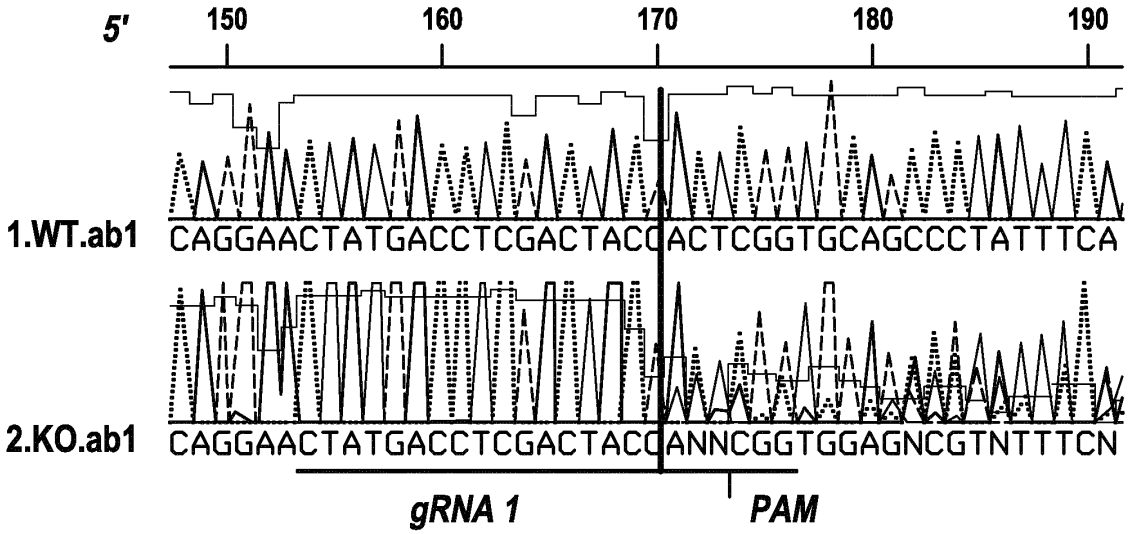
Fig. 1 part 1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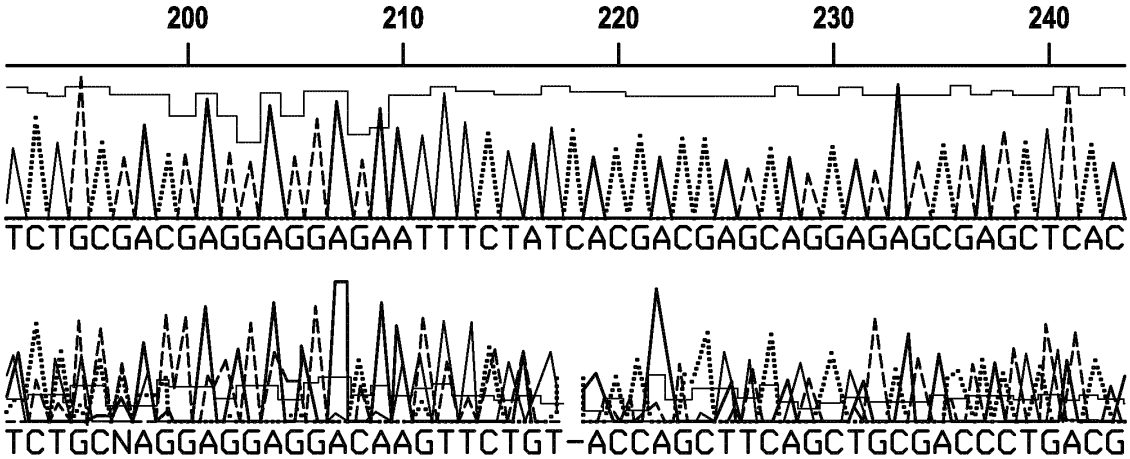
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Fig. 1 part 2

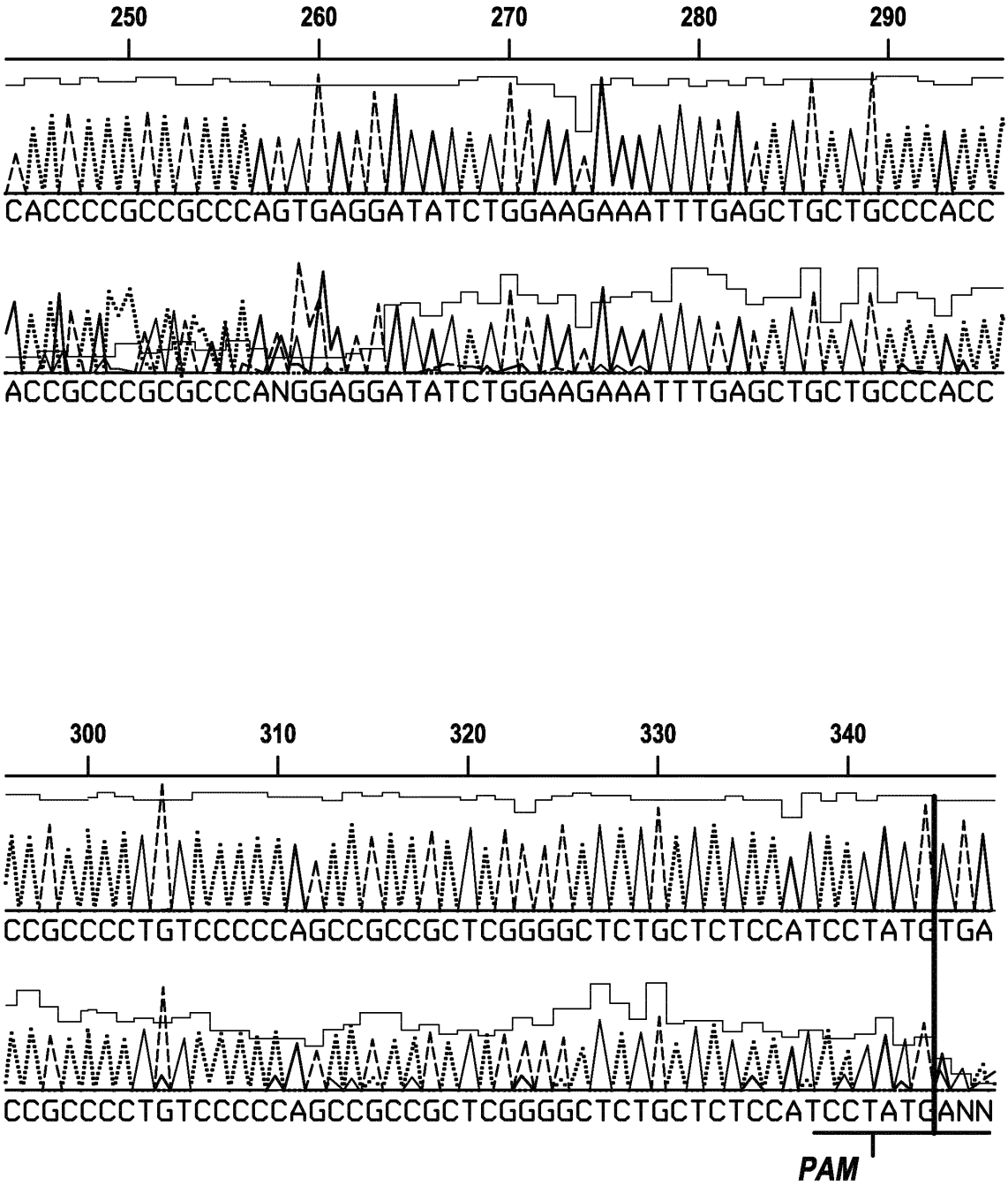
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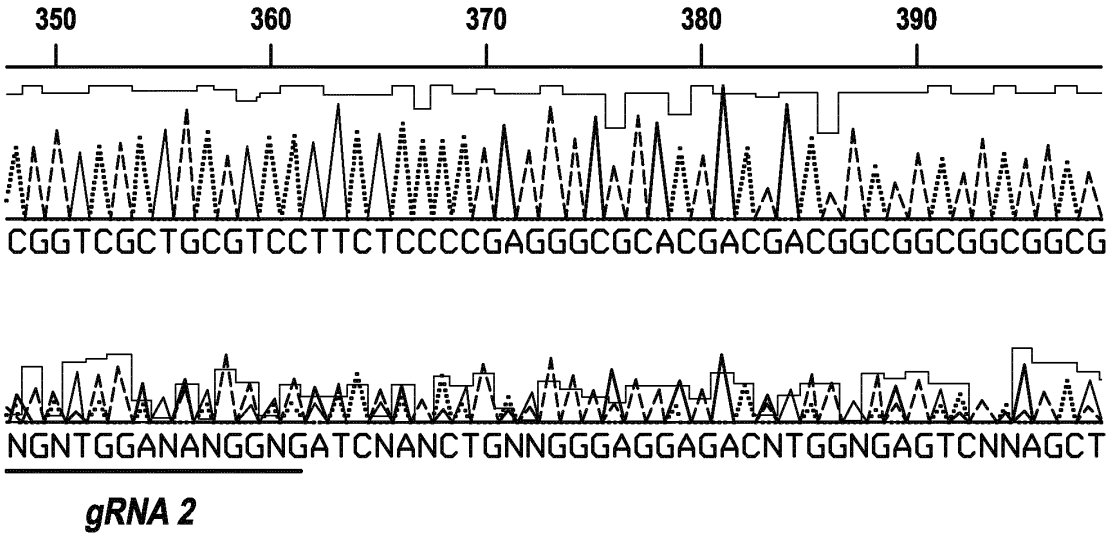
Fig. 1 part 3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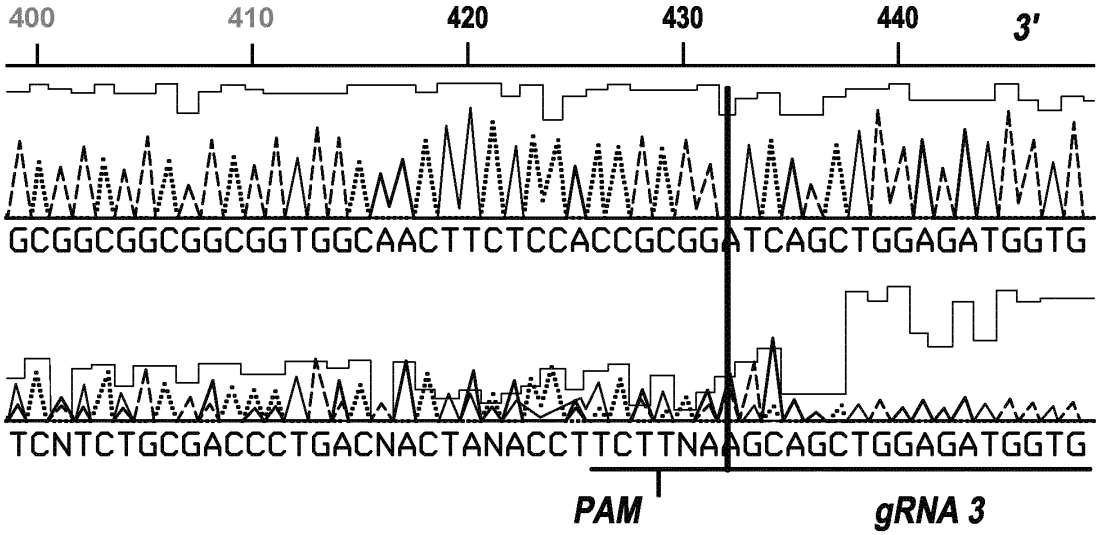
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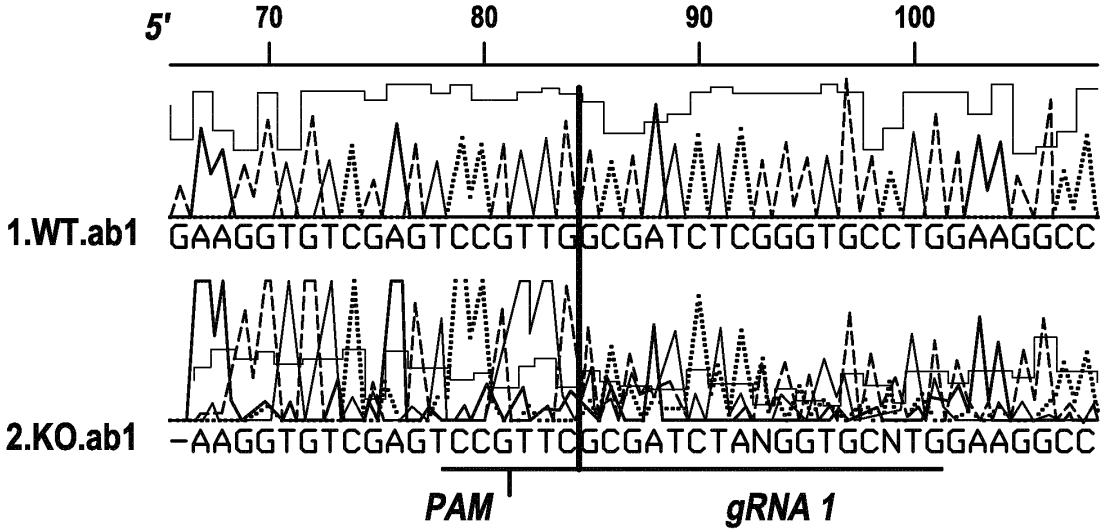
gRNA 3

Fig. 2 part 1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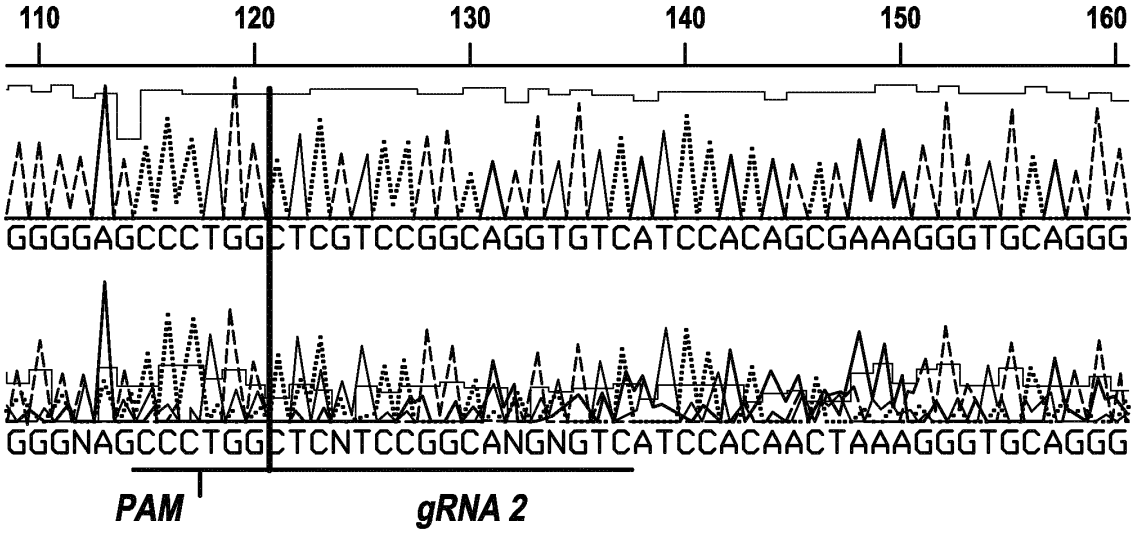
gRNA 1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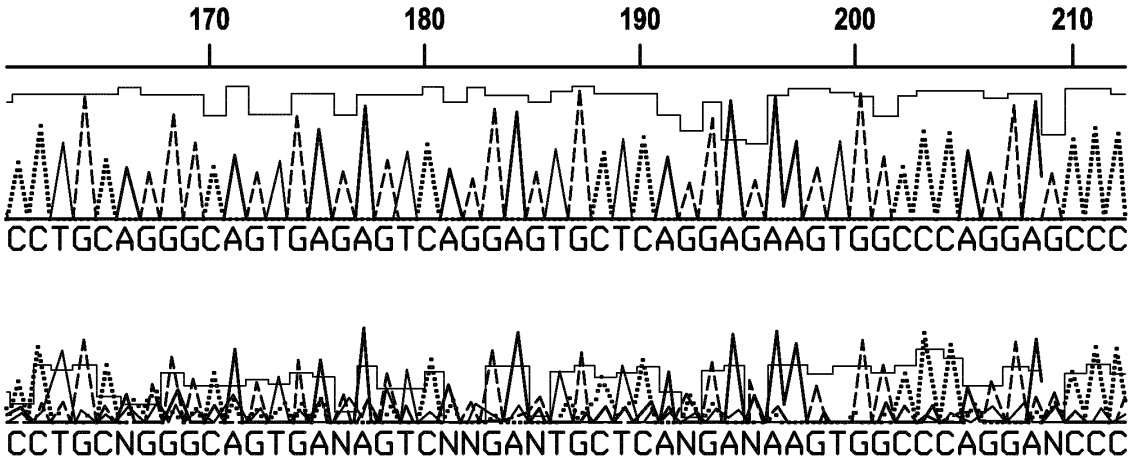
gRNA 2

Fig. 2 part 2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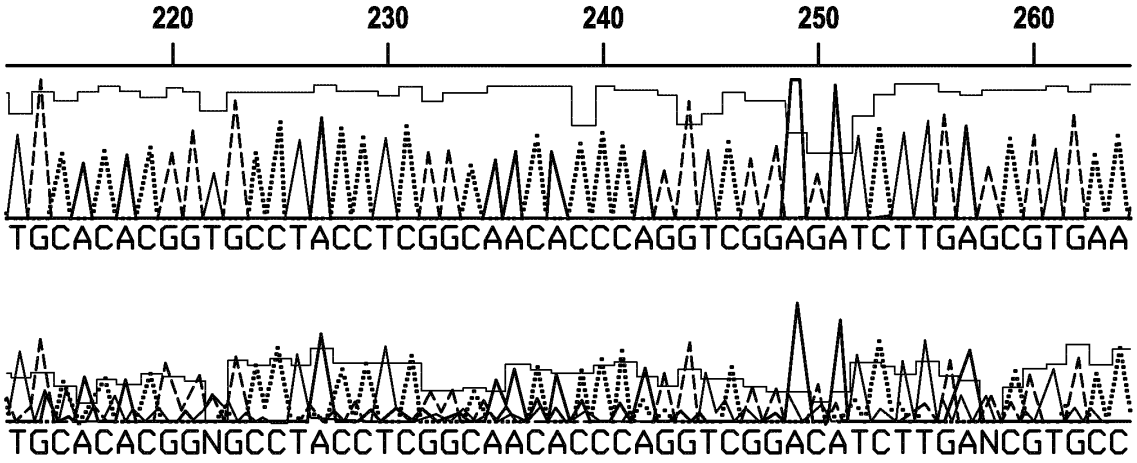
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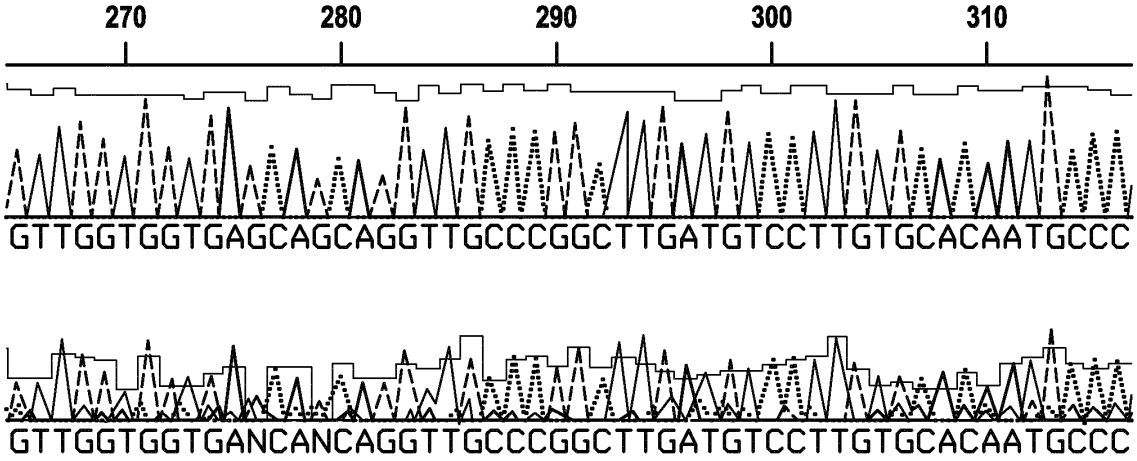
Fig. 2 part 3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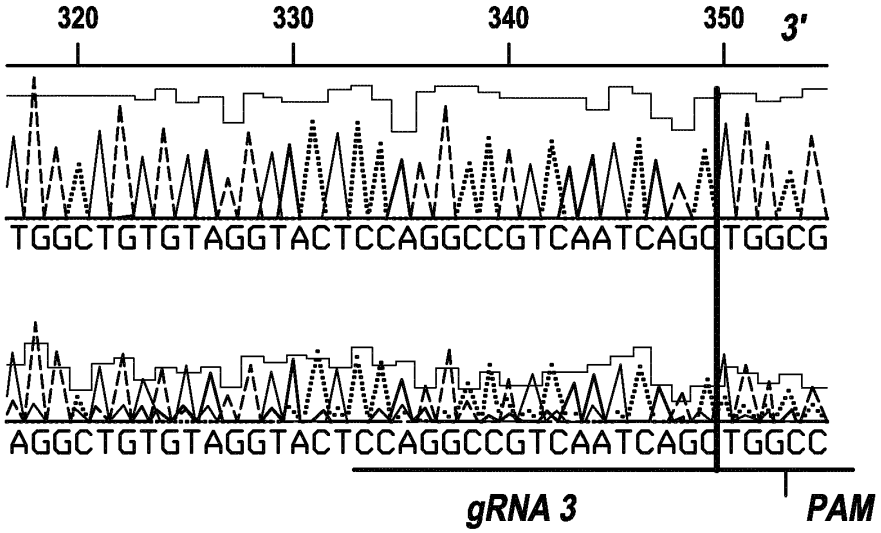
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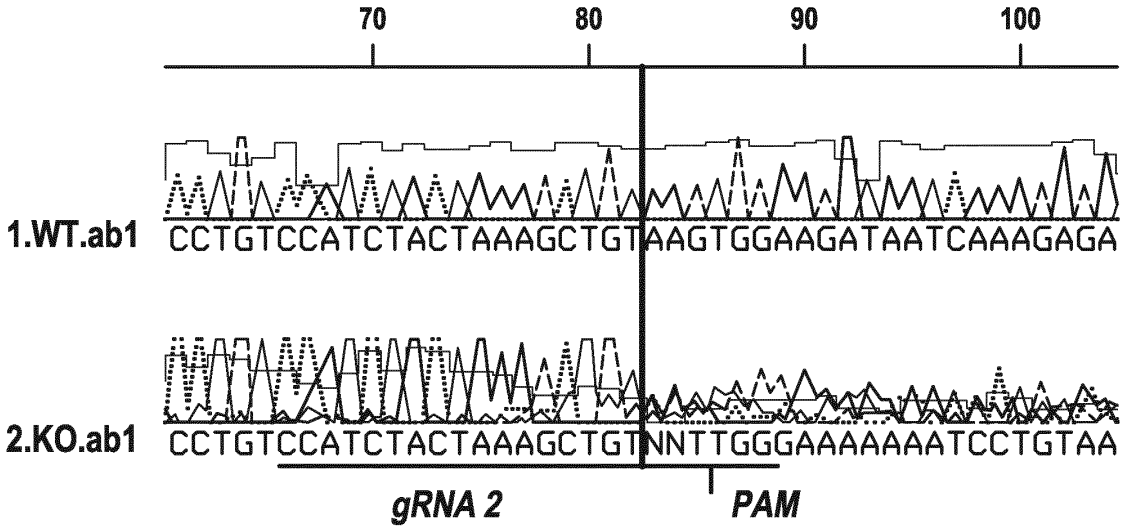
Fig. 3 part 1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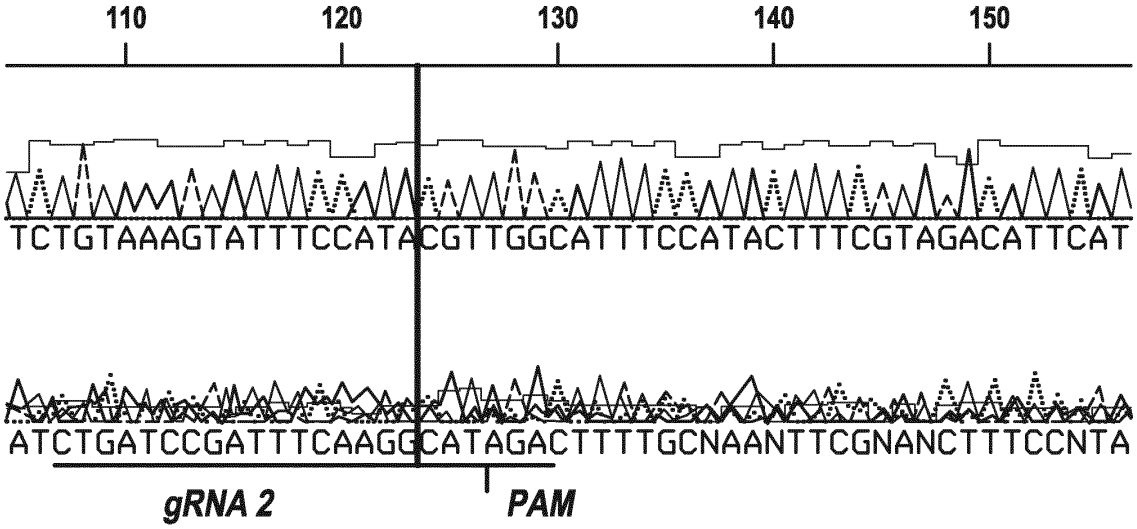
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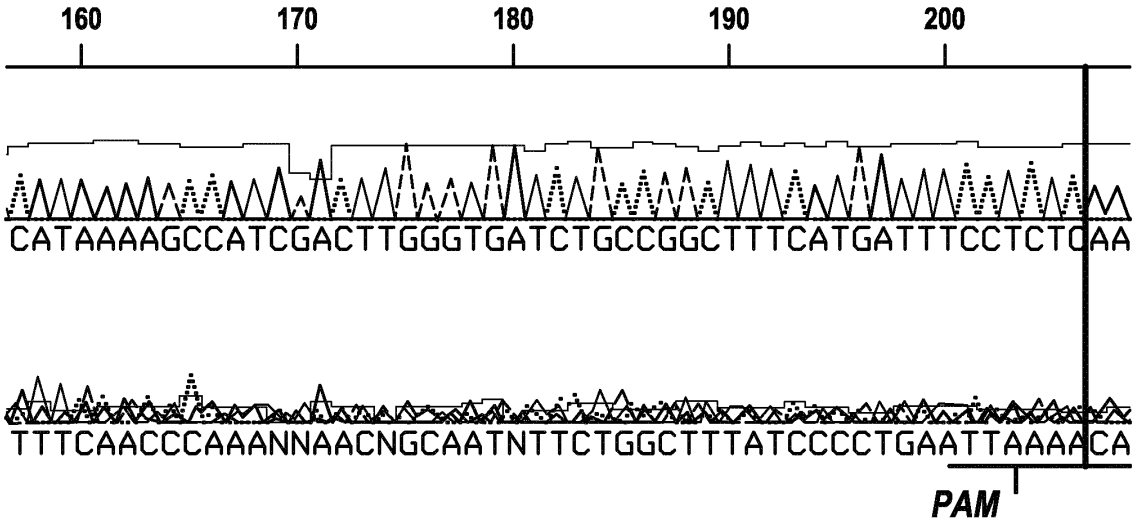
Fig. 3 part 2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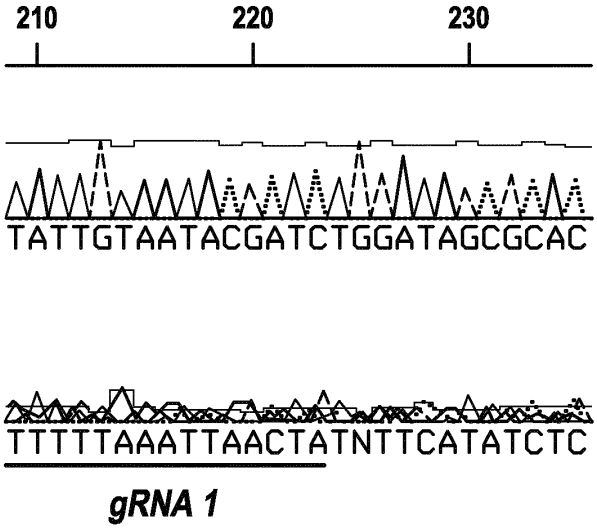
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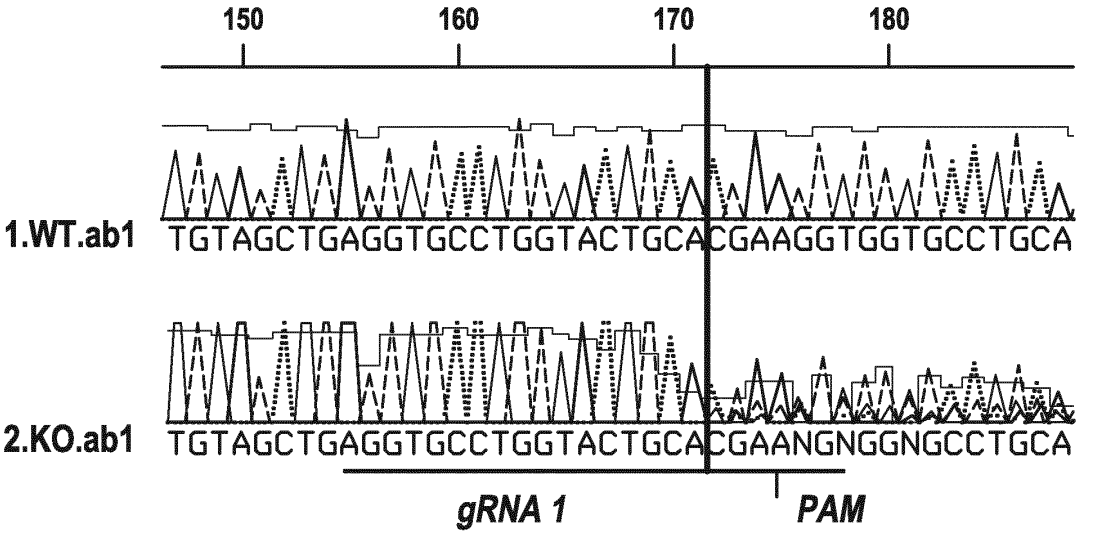
Fig. 4 part 1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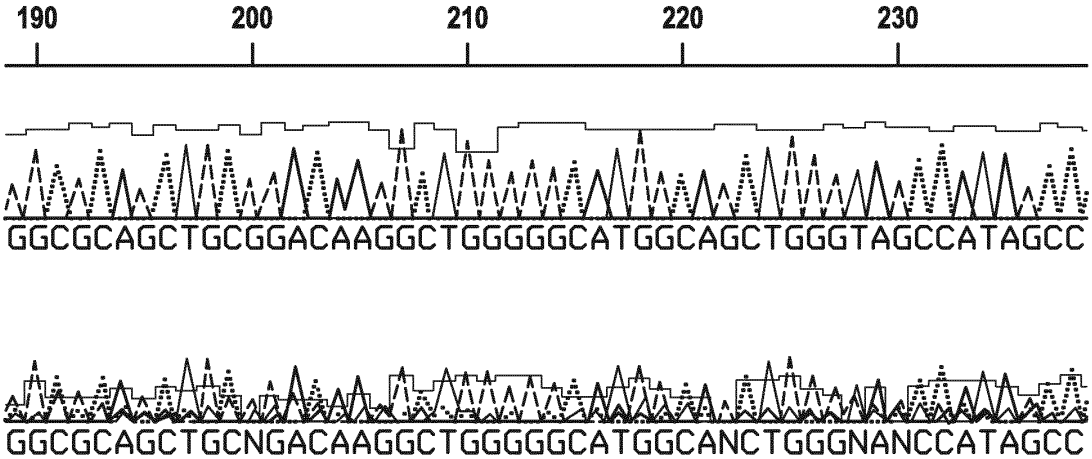
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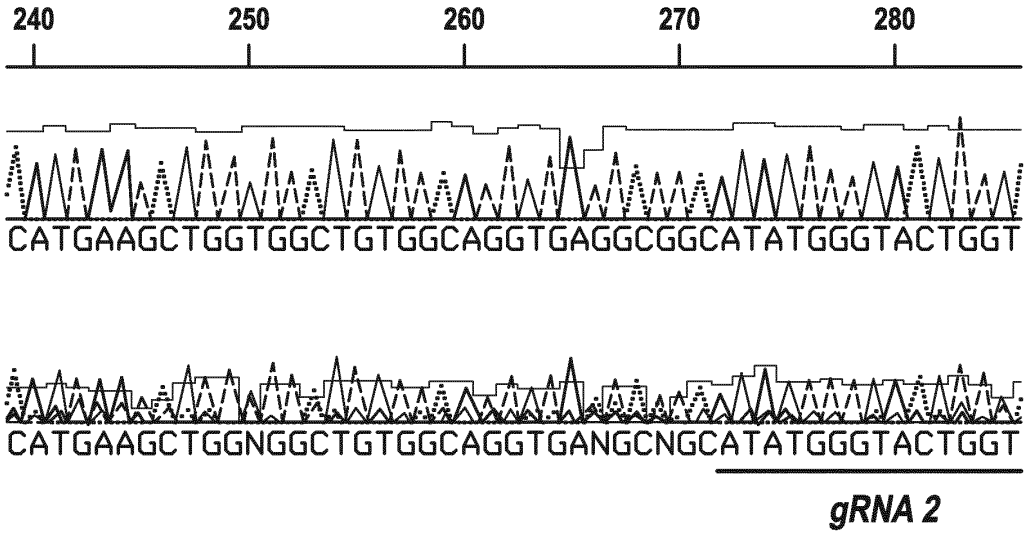
Fig. 4 part 2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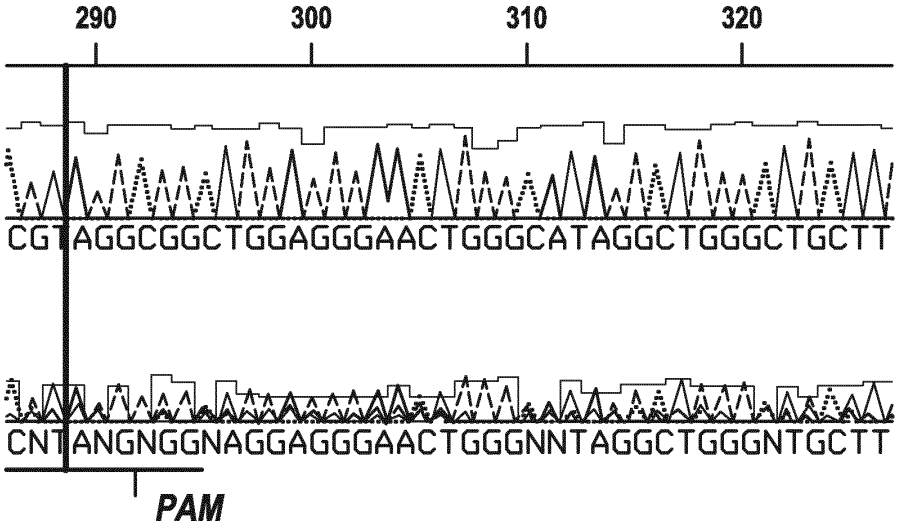
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Fig. 4 part 3

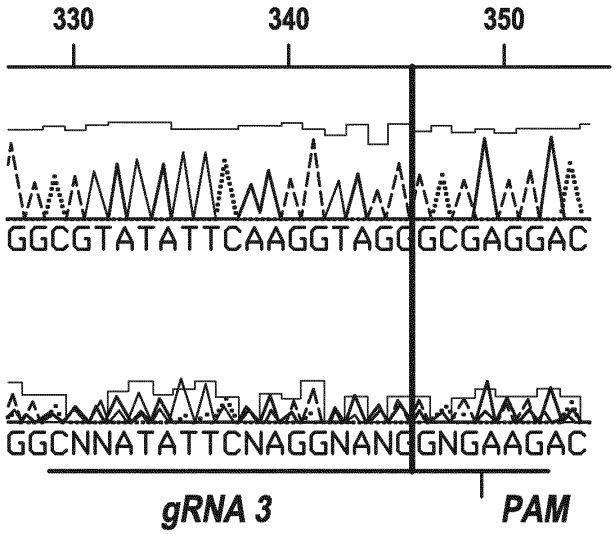
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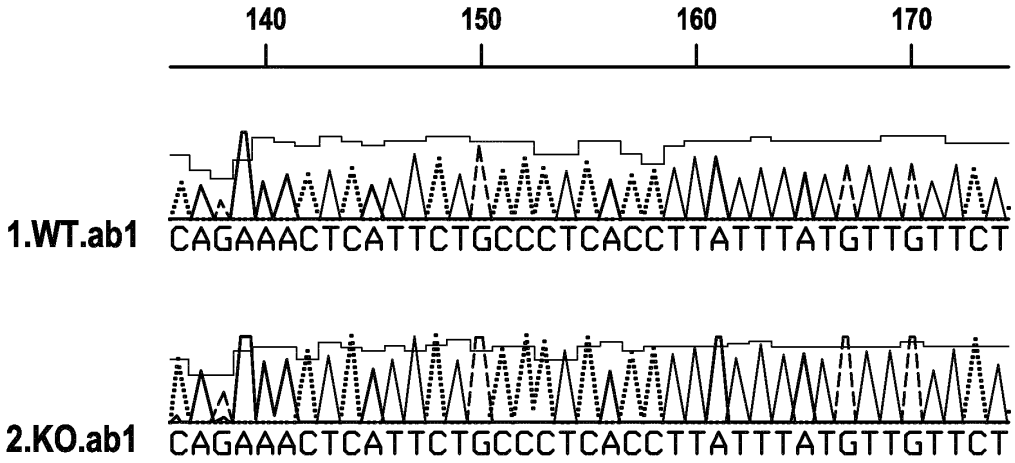
Fig. 5 part 1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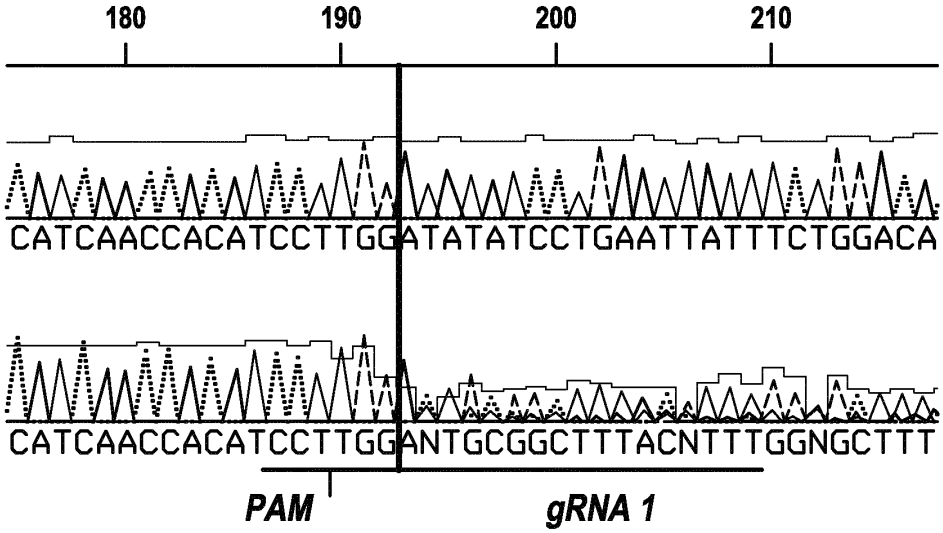
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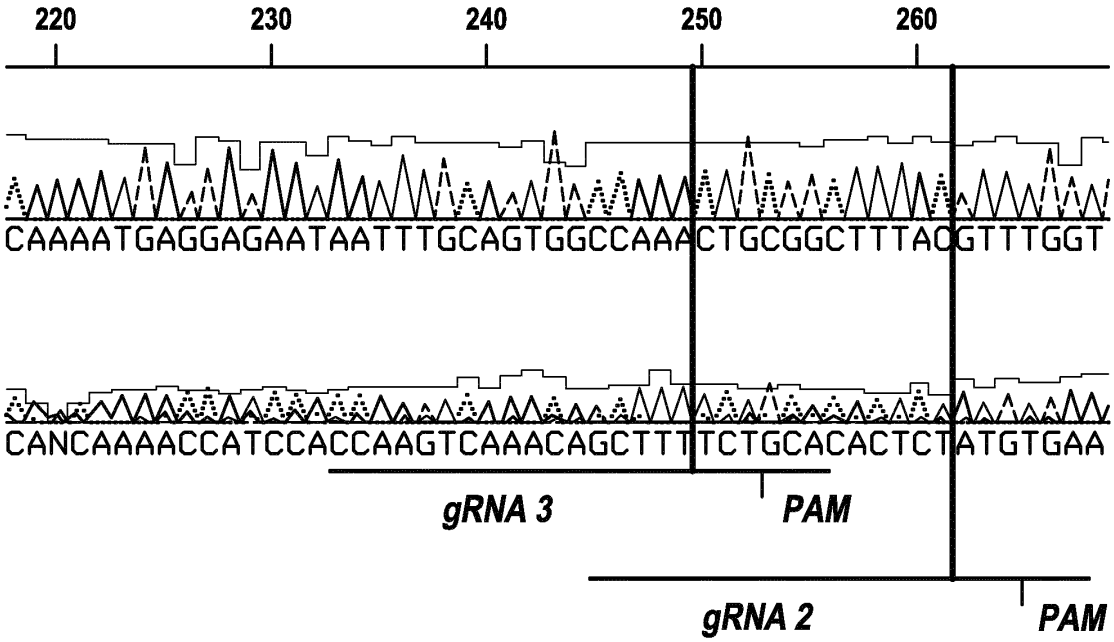
gRNA 1

Fig. 5 part 2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gRNA 2
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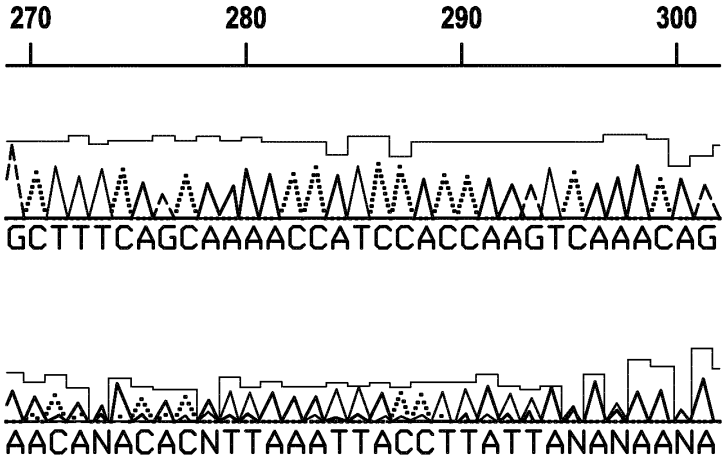
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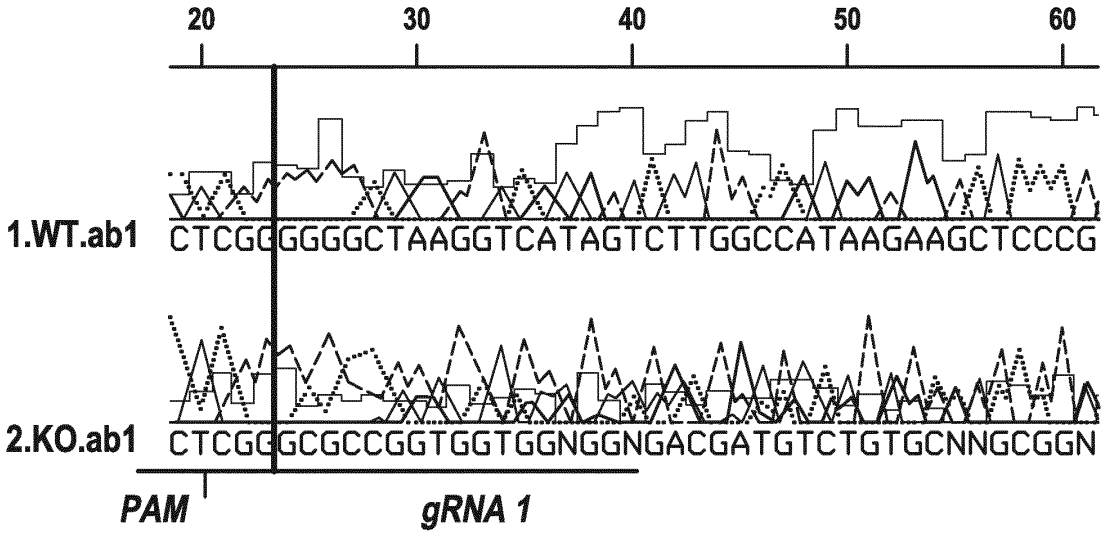
Fig. 6 part 1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gRNA 1

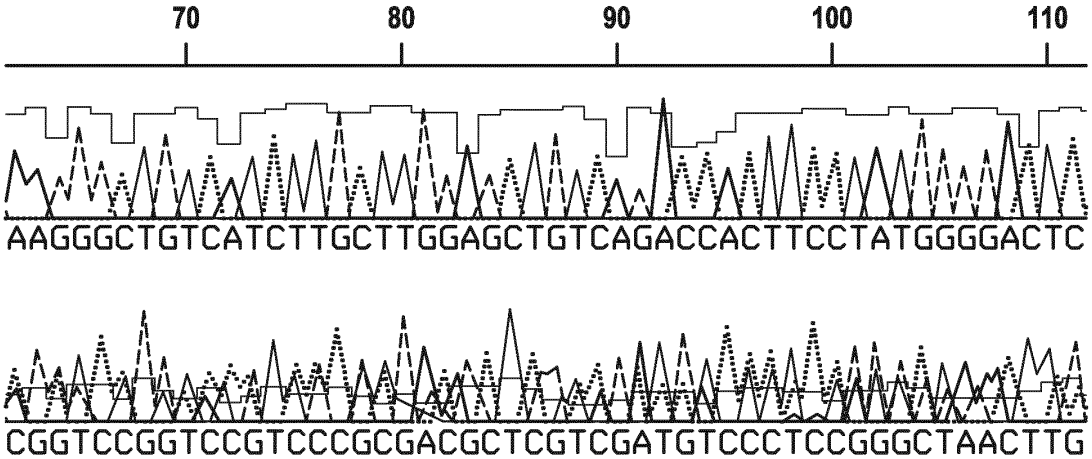
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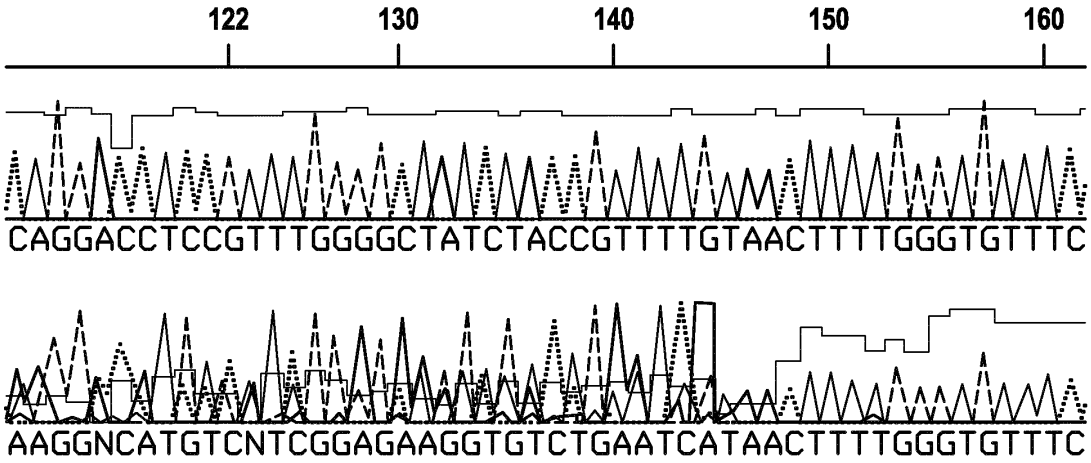
Fig. 6 part 2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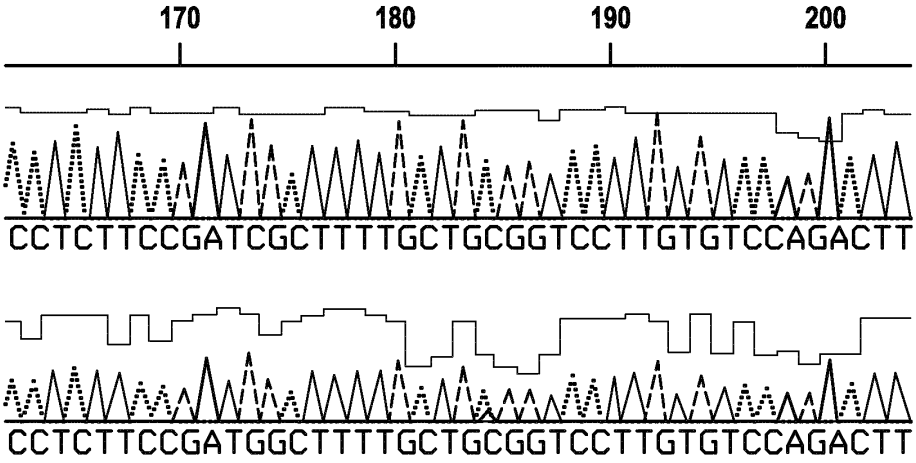
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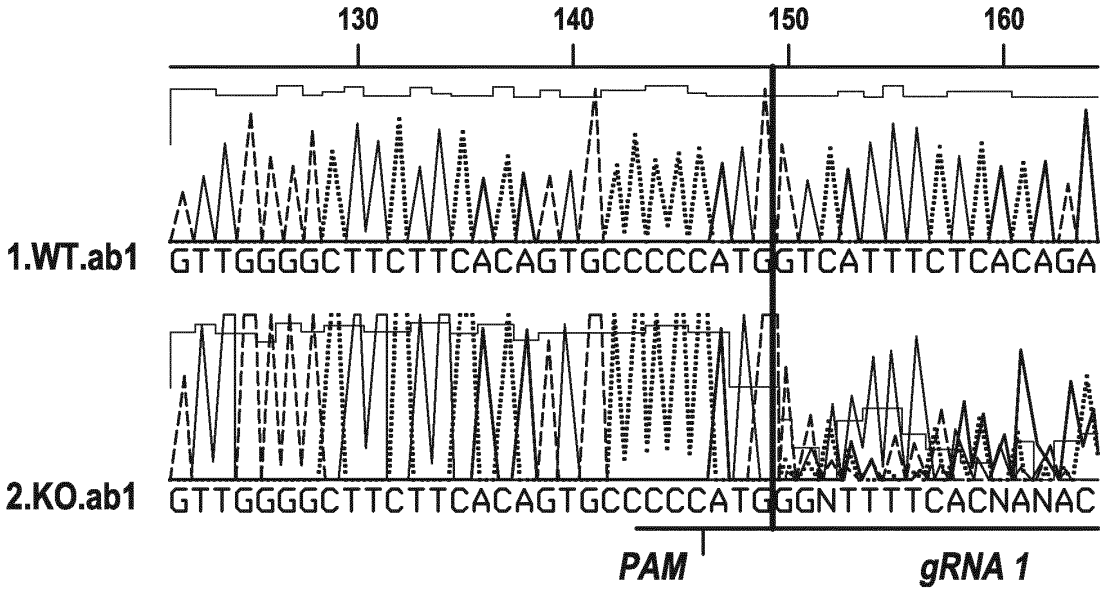
Fig. 7 part 1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gRNA 1

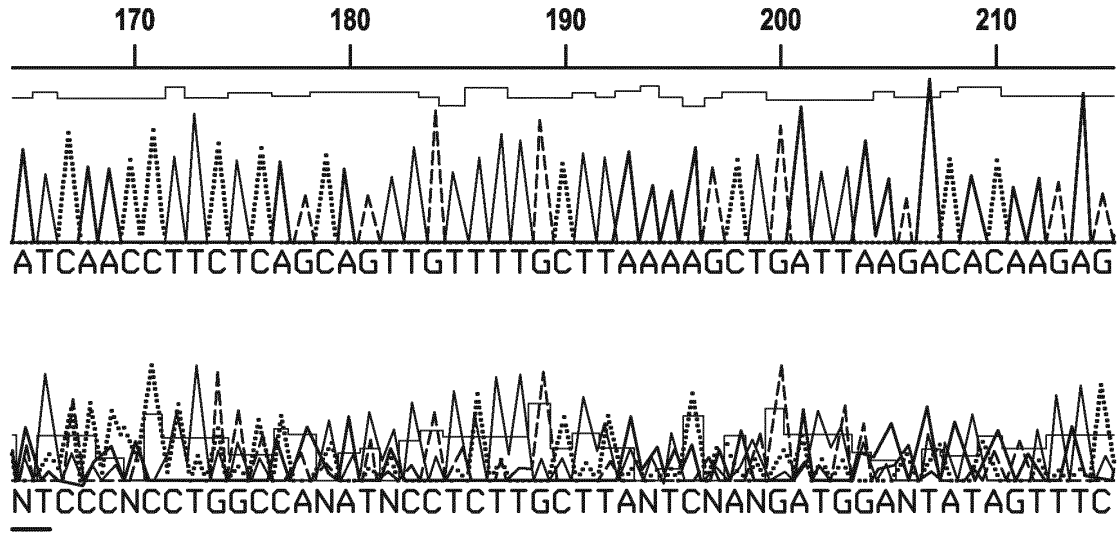
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Fig. 7 part 2

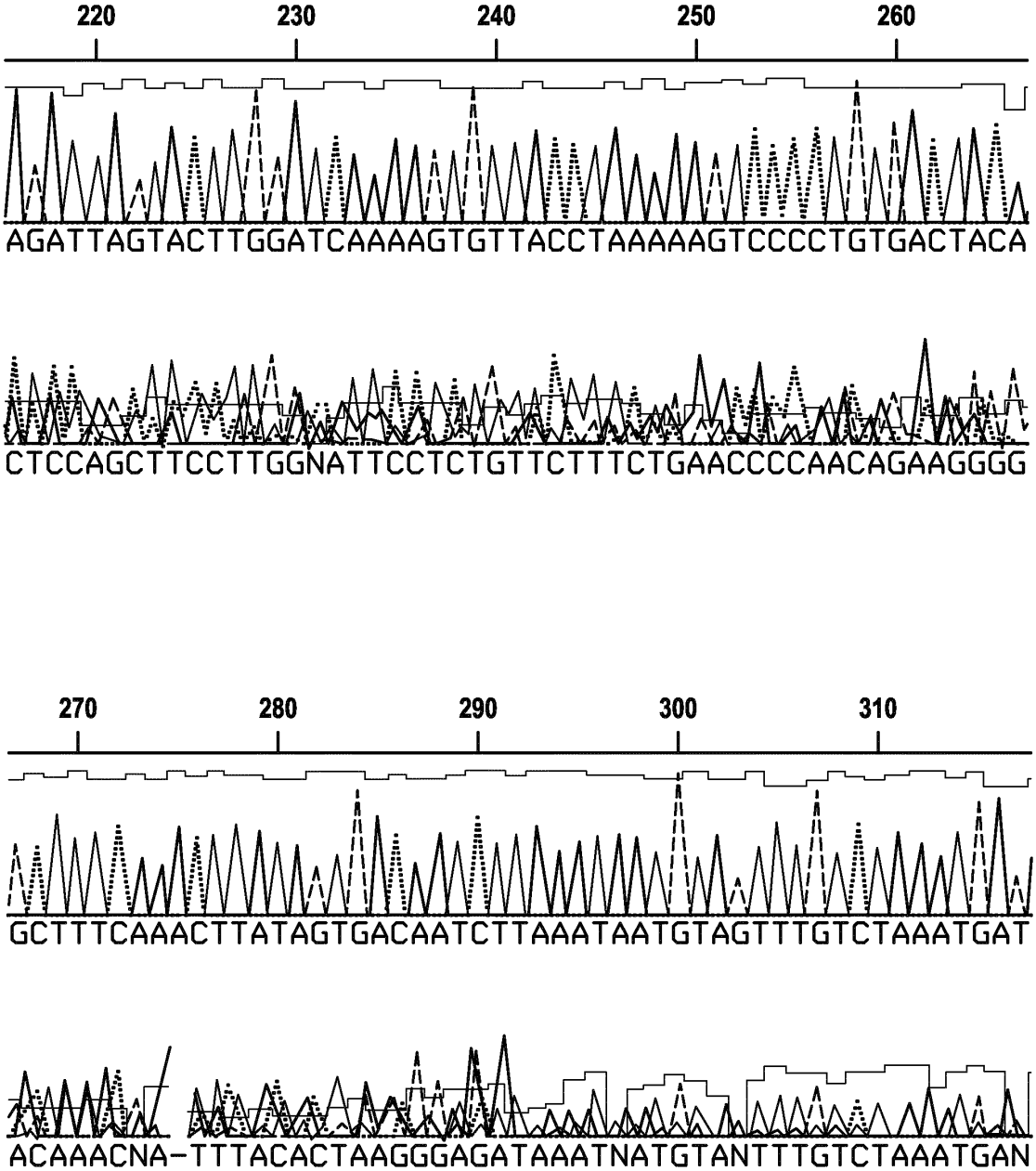
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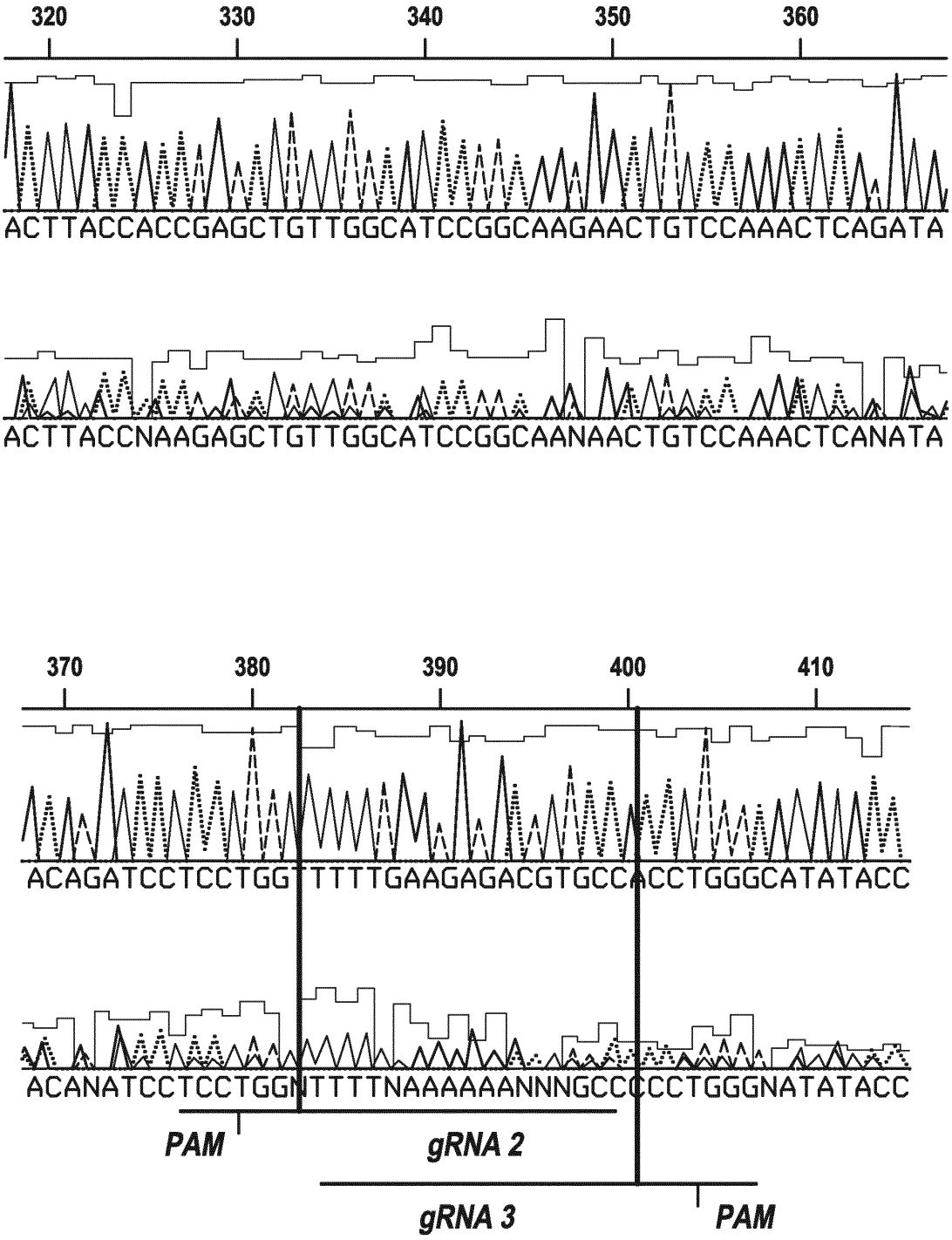
Fig. 7 part 3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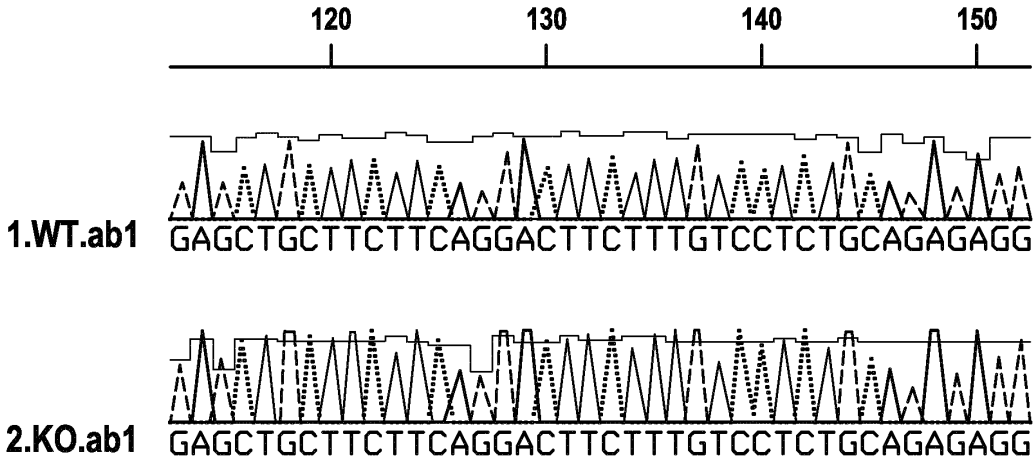
PAM
gRNA 2
gRNA 3
PAM

Fig. 8 part 1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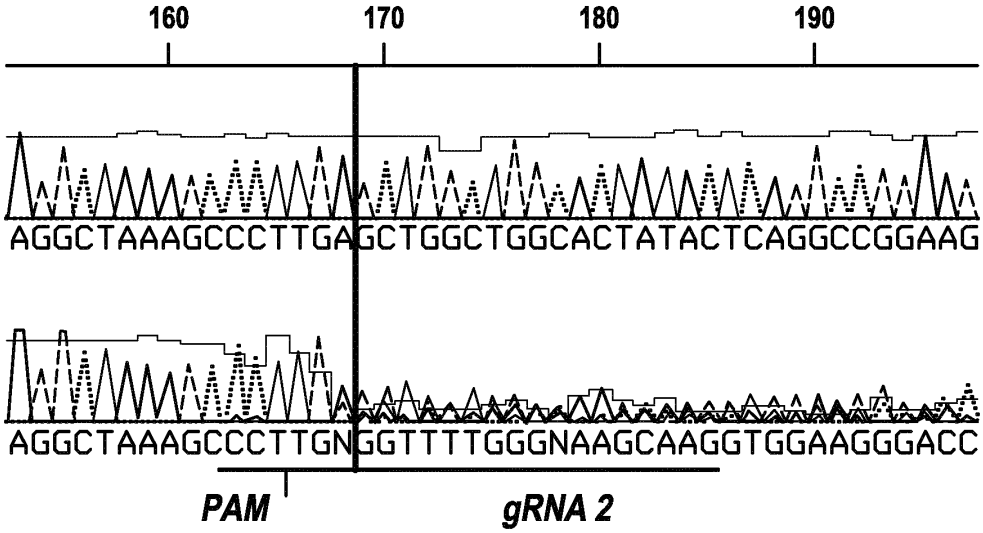
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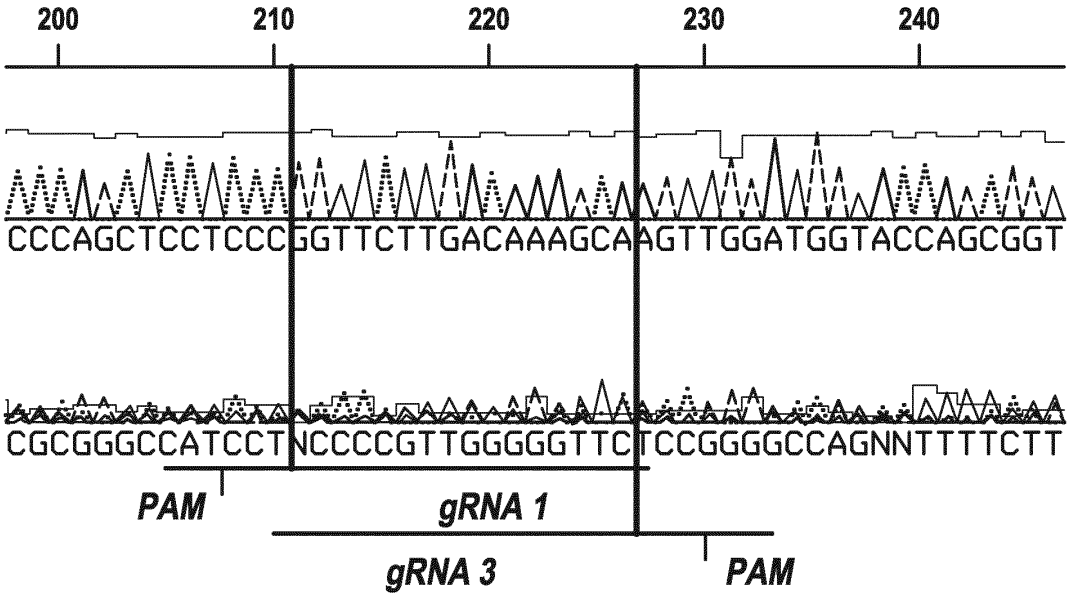
Fig. 8 part 2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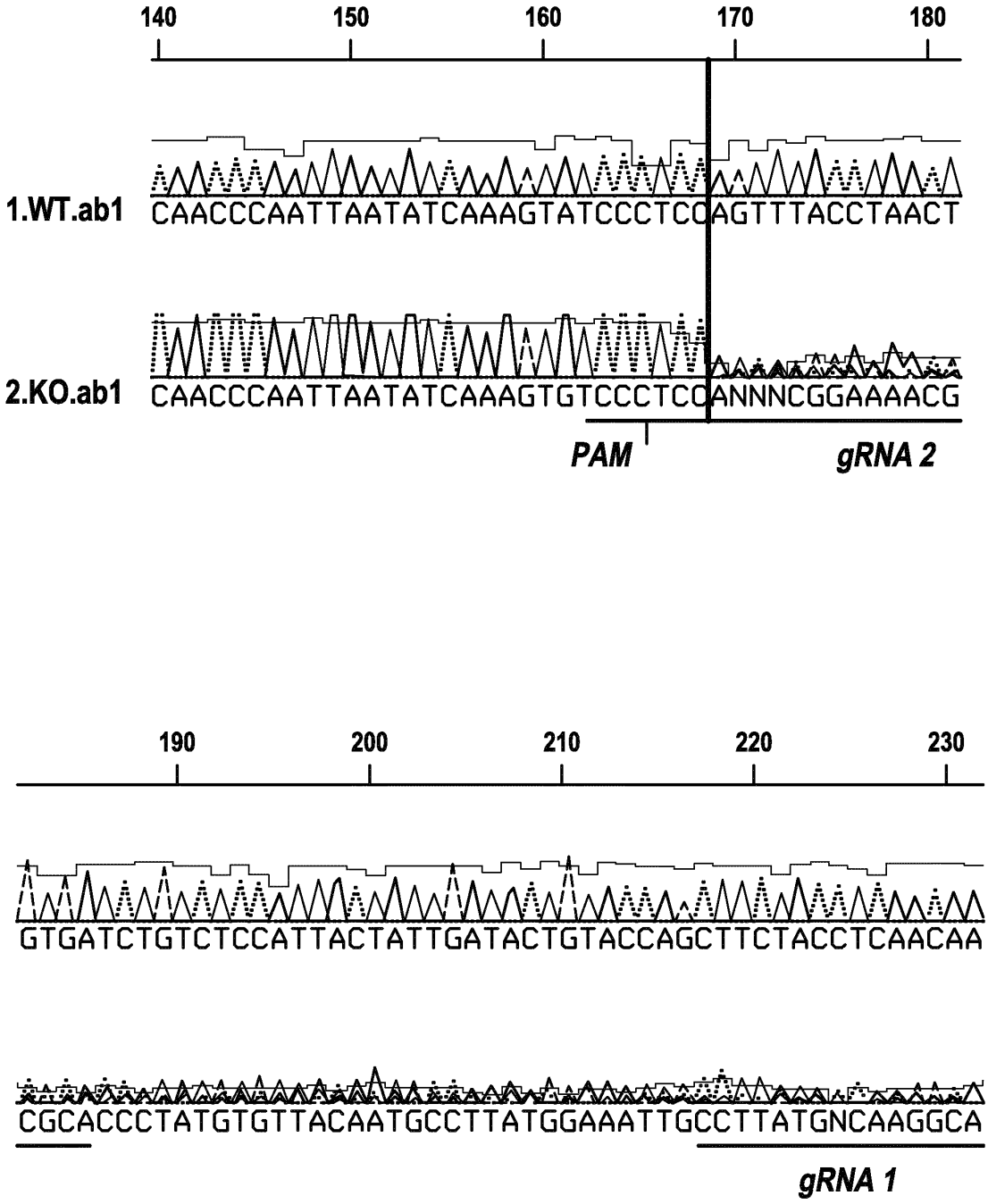
PAM
gRNA 1
gRNA 3
PAM

Fig. 9 part 1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PAM
gRNA 2
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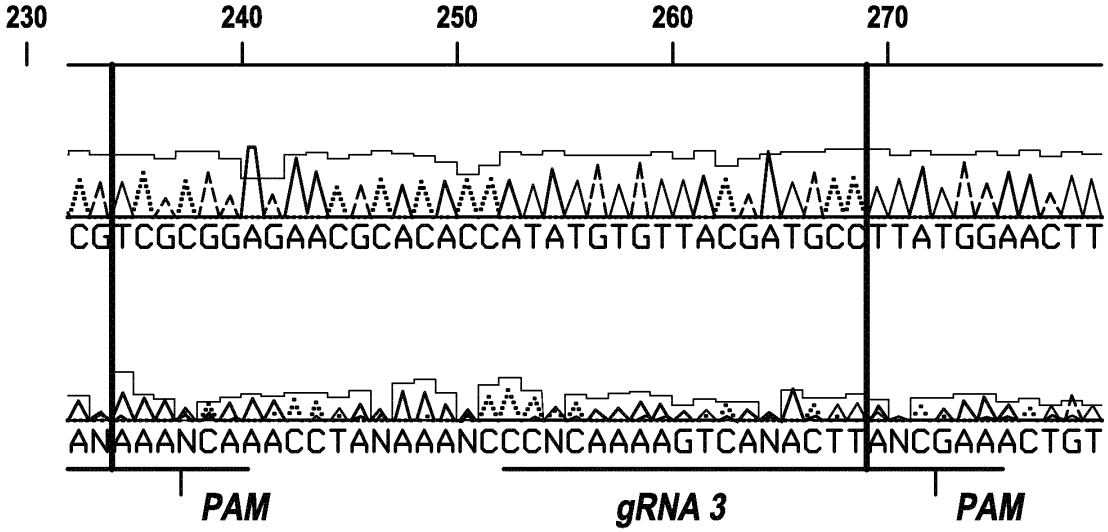
gRNA 1

Fig. 9 part 2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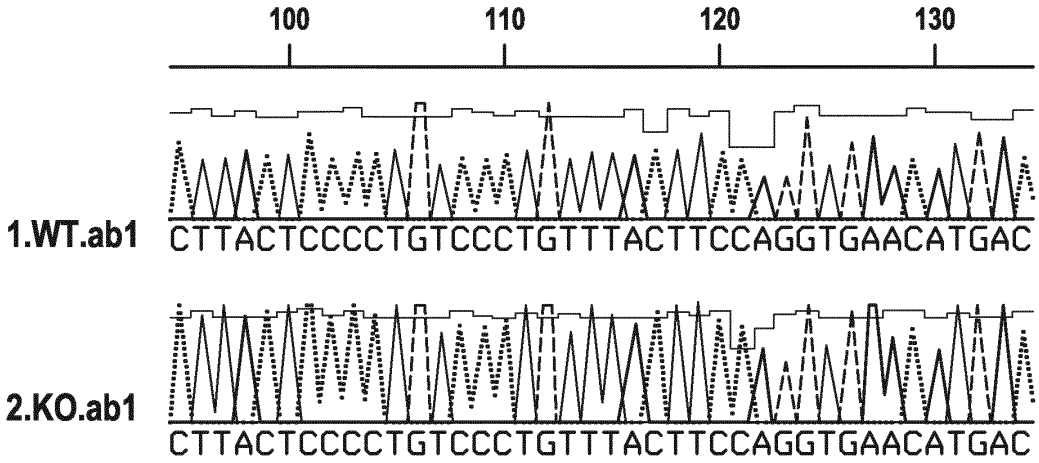
PAM
gRNA 3
PAM

Fig. 10 part 1


100
110
120
130
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2.KO.ab1
CTTACTCCCCTGTCCCTGTTTACTTCCAGGTGAACATGAC

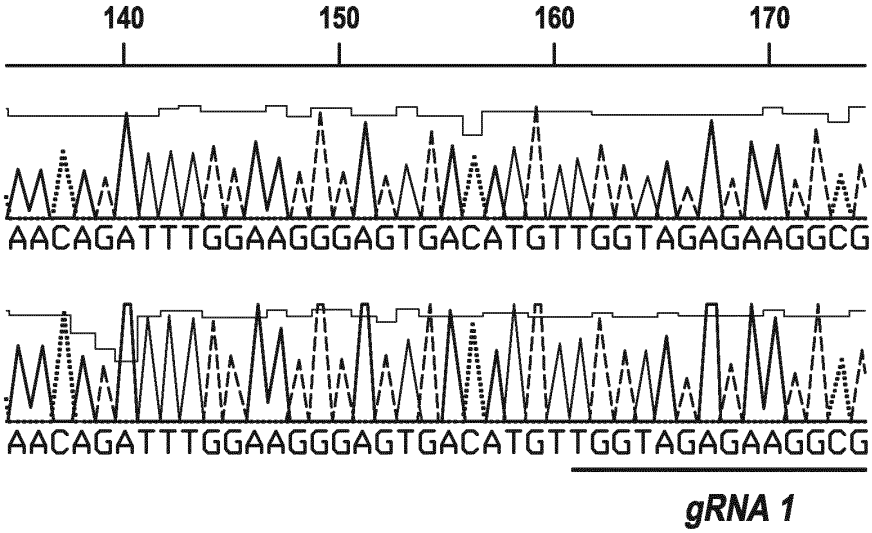
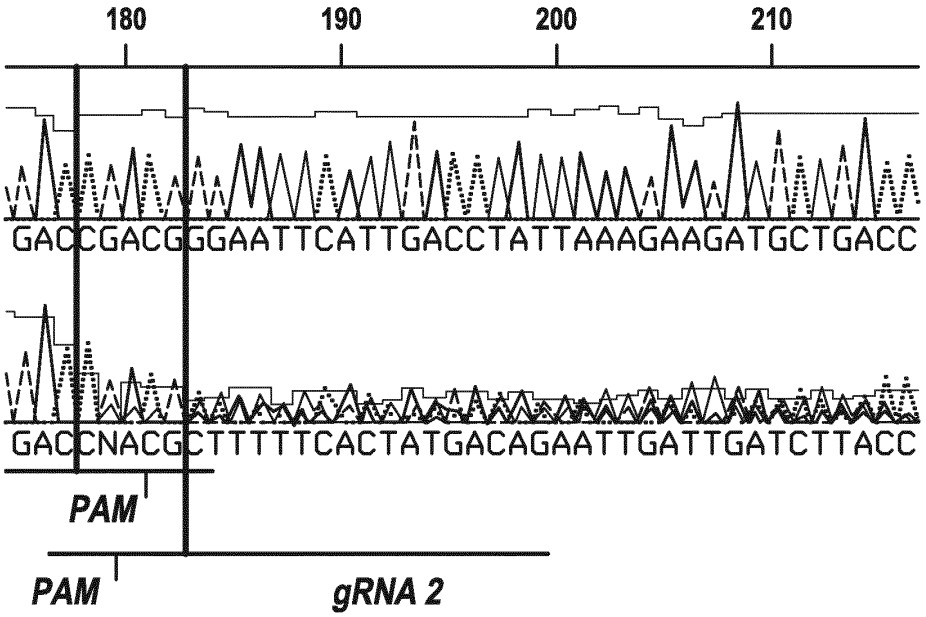
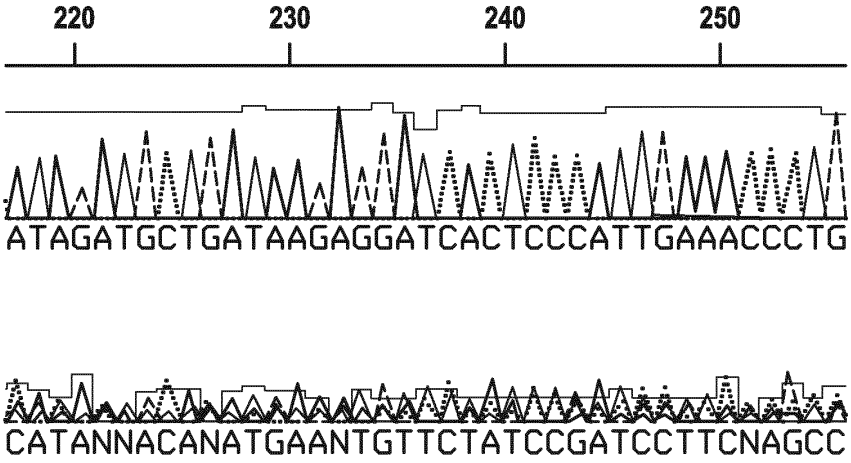

140
150
160
170
AACAGATTTGGAAGGGAGTGACATGTTGGTAGAGAAGGCG
AACAGATTTGGAAGGGAGTGACATGTTGGTAGAGAAGGCG
gRNA 1

Fig. 10 part 2


180
190
200
210
GACCGACGGAATTCATTGACCTATTAAAGAAGATGCTGACC
GACCNACGCTTTTTCACTATGACAGAATTGATTGATCTTACC
PAM
PAM
gRNA 2


220
230
240
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ATAGATGCTGATAAGAGGATCACTCCCATTGAAACCCTG
CATANNACANATGAANTGTTCTATCCGATCCTTCNAGCC

Fig. 10 part 3

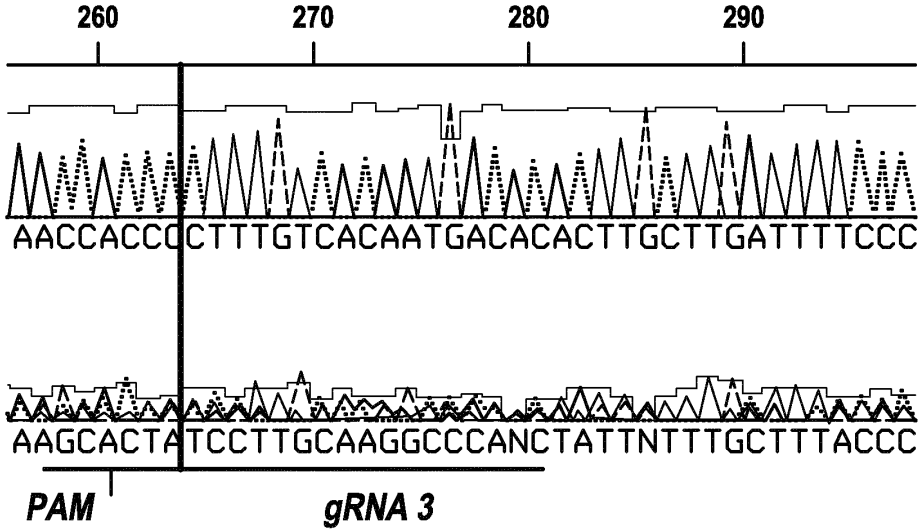
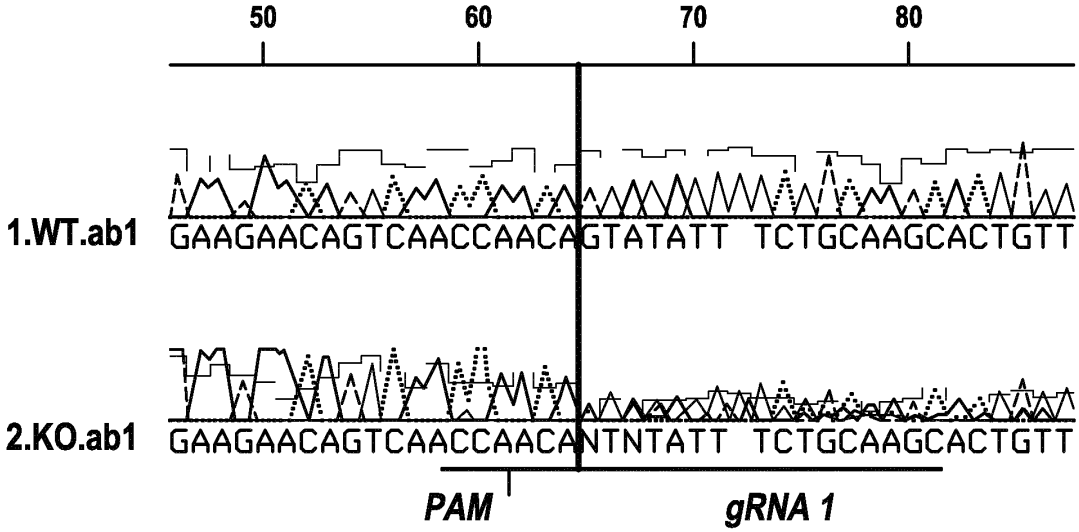
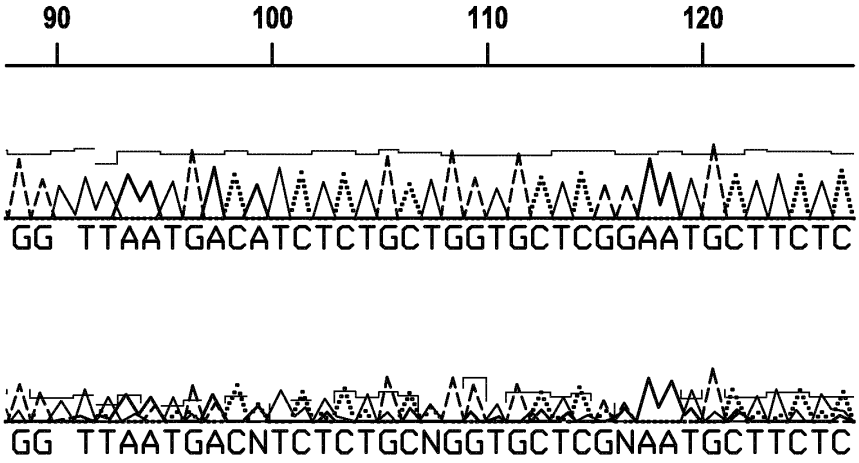

260
270
280
290
AACCACCCCTTTGTCACAATGACACACTTGCTTGATTTTCCC
AAGCACTATCCTTGCAAGGCCCANCTATTNTTTGCTTTACCC
PAM
gRNA 3

Fig. 11 part 1


50
60
70
80
1.WT.ab1
GAAGAACAGTCAACCAACAGTATATT TCTGCAAGCACTGTT
2.KO.ab1
GAAGAACAGTCAACCAACANTNTATT TCTGCAAGCACTGTT
PAM
gRNA 1


90
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110
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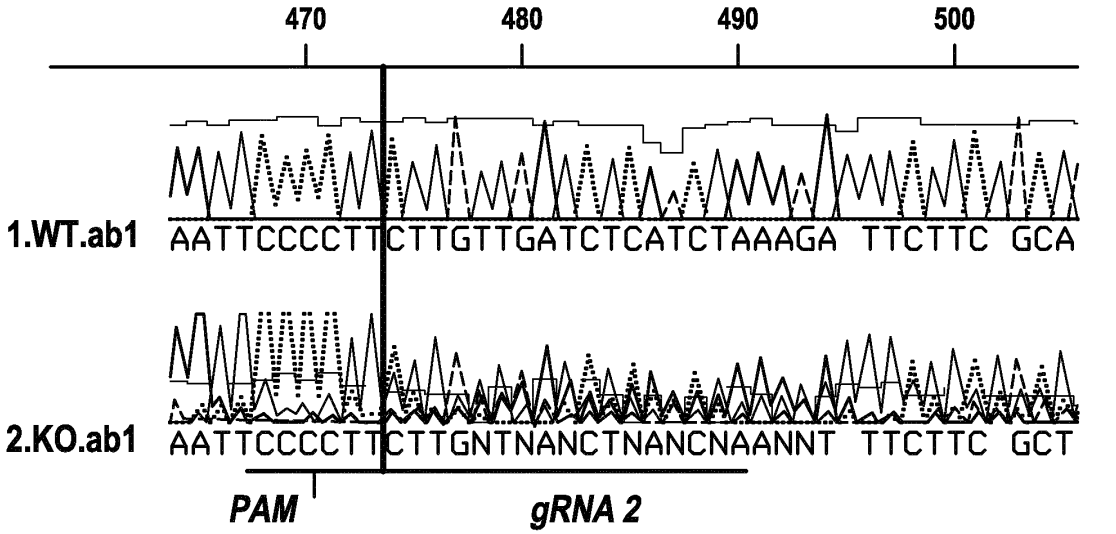
GG TTAATGACNTCTCTGCNGGTGCTCGNAATGCTTCTC

Fig. 11 part 2


470
480
490
500
1.WT.ab1
AATTCCCCTTCTTGTTGATCTCATCTAAAGA TTCTTC GCA
2.KO.ab1
AATTCCCCTTCTTGNTNANCTNANCNAANNT TTCTTC GCT
PAM
gRNA 2

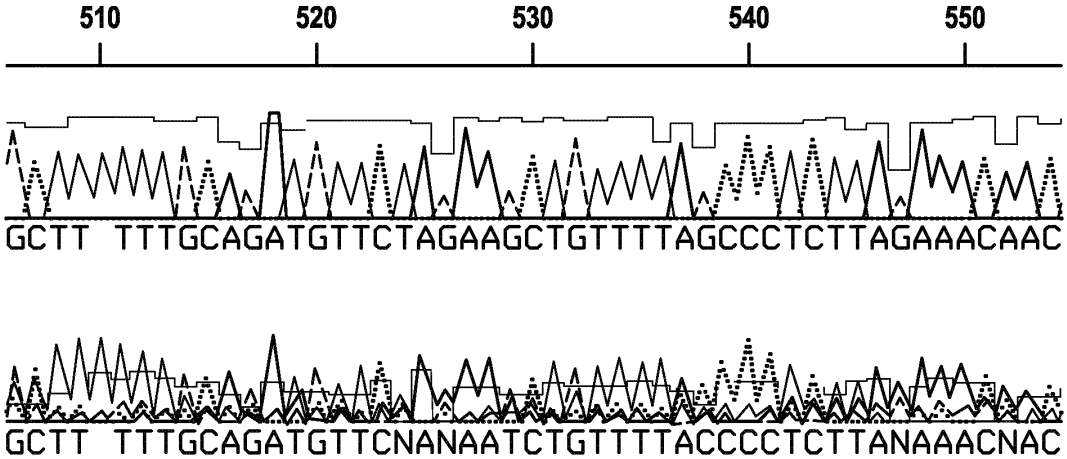
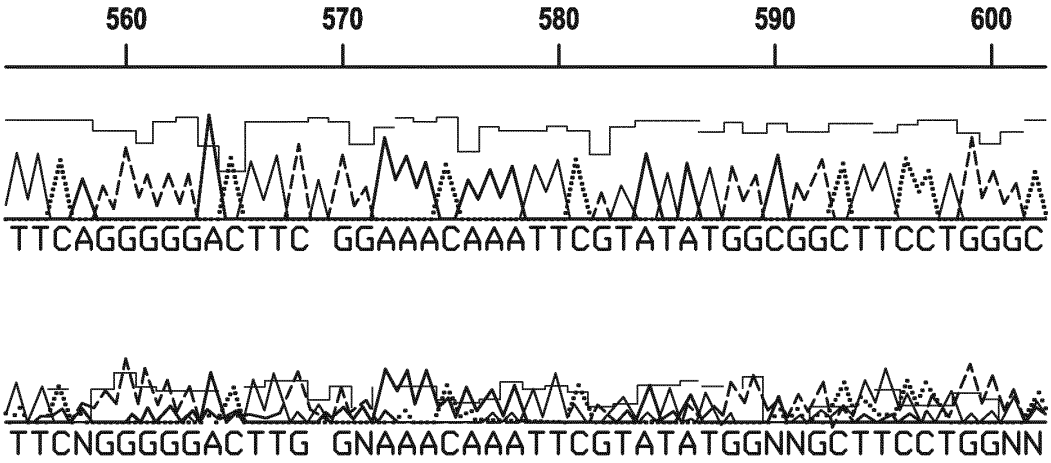

510
520
530
540
550
GCTT TTTGCAGATGTTCTAGAAGCTGTTTTAGCCCTCTTAGAAACAAC
GCTT TTTGCAGATGTTCNANAATCTGTTTTACCCCTCTTANAAACNAC

Fig. 11 part 3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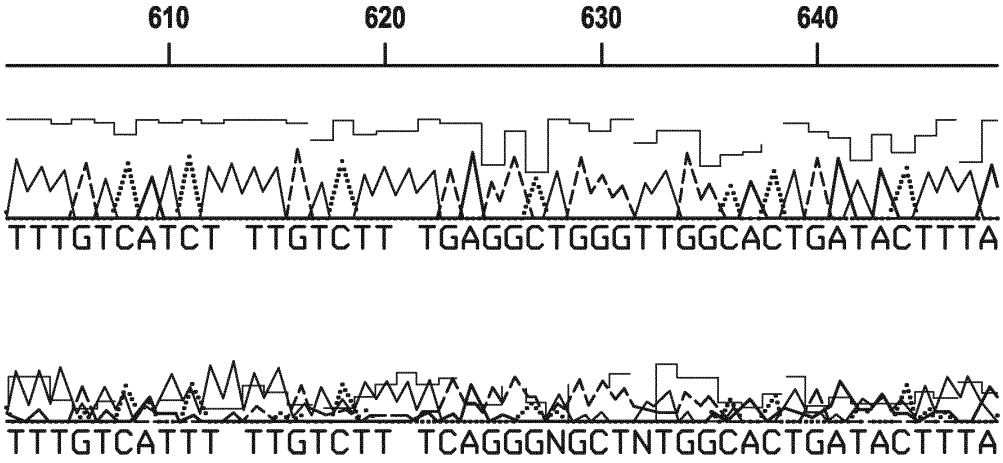

610
620
630
640
TTTGTCATCT TTGTCTT TGAGGCTGGGTTGGCACTGATACTTTA
TTTGTCATTT TTGTCTT TCAGGGNGCTNTGGCACTGATACTTTA

Fig. 11 part 4

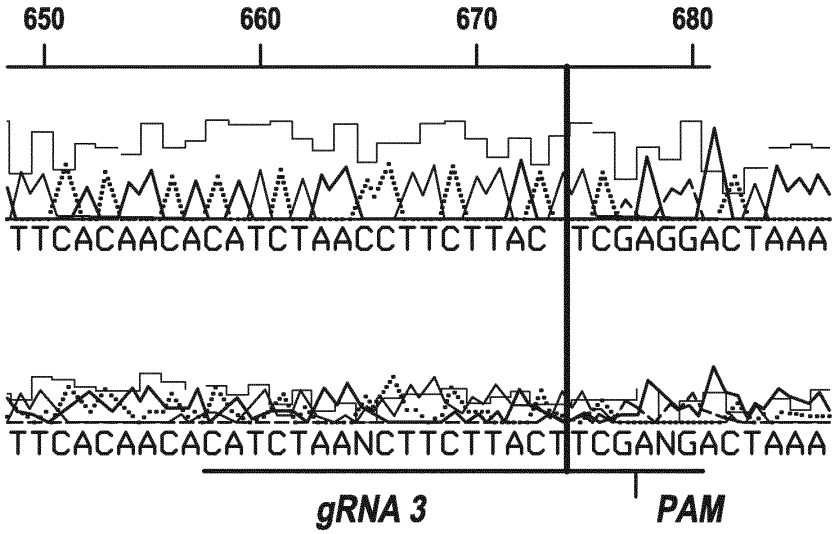
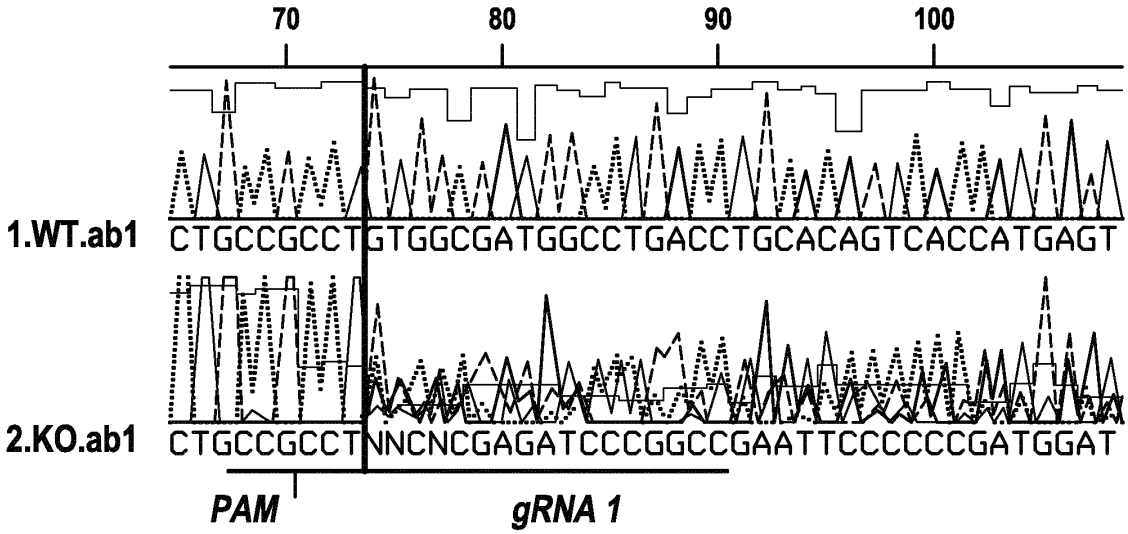

650
660
670
680
TTCACAACACATCTAACCTTCTTAC TCGAGGACTAAA
TTCACAACACATCTAANCTTCTTACT TCGANGACTAAA
gRNA 3
PAM

Fig. 12 part 1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90
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1.WT.ab1
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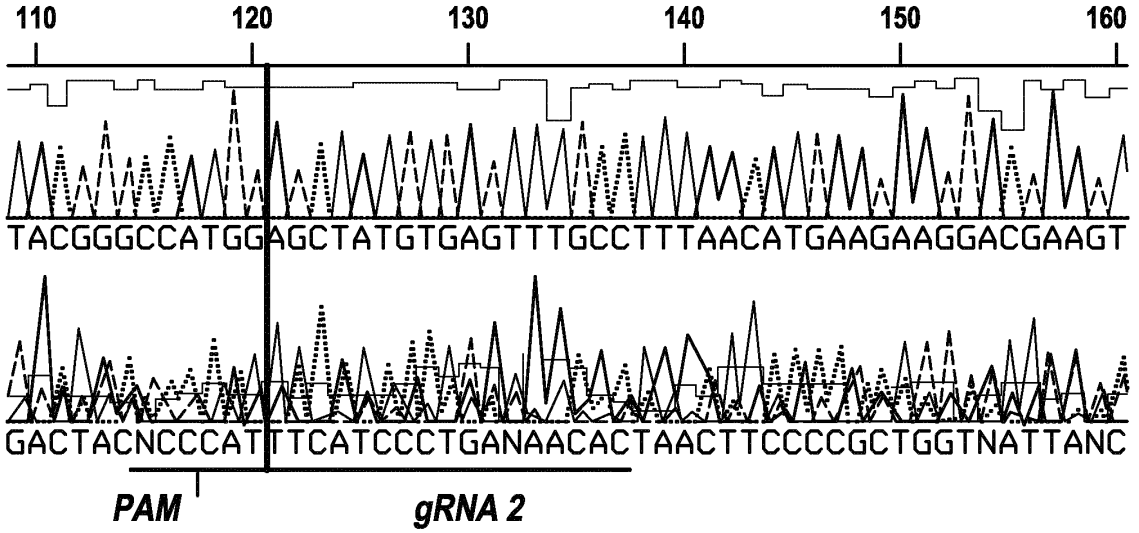
2.KO.ab1
CTGCCGCCTNNCNCGAGATCCCGGCCGAATTCCCCCCGATGGAT
PAM
gRNA 1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130
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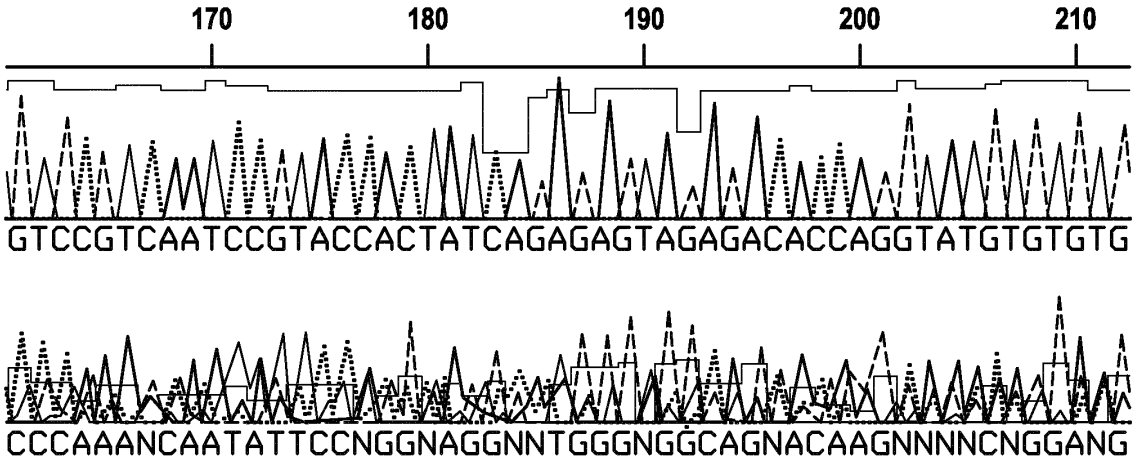
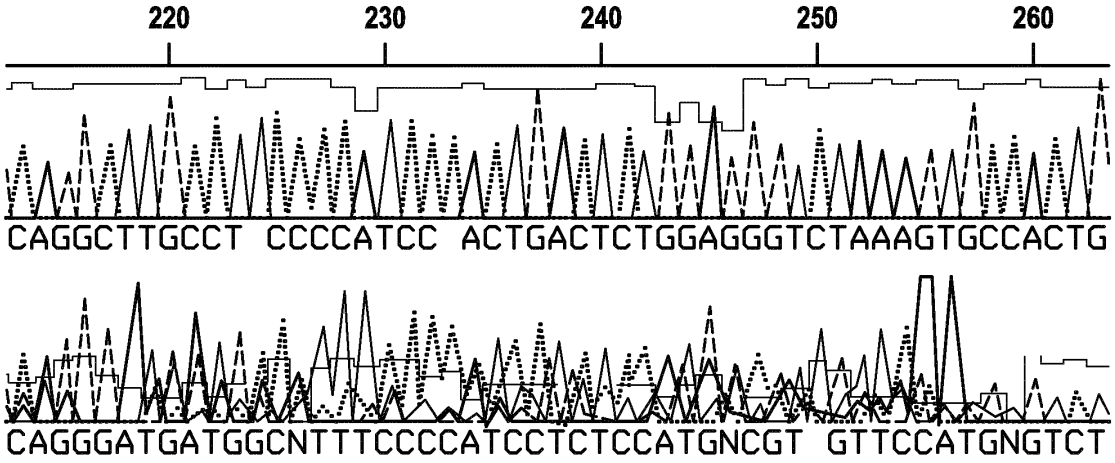
150
160
TACGGGCCATGGAGCTATGTGAGTTTGCCTTTAACATGAAGAAGGACGAAGT
GACTACNCCCATTTCATCCCTGANAACACTAACTTCCCCGCTGGTNATTANC
PAM
gRNA 2

Fig. 12 part 2


170
180
190
200
210
GTCCGTCAATCCGTACCACTATCAGAGAGTAGAGACACCAGGTATGTGTGTG
CCCAAANCAATATTCCNGGNAGGNNTGGGNGGCAGNACAAGNNNNCNGGANG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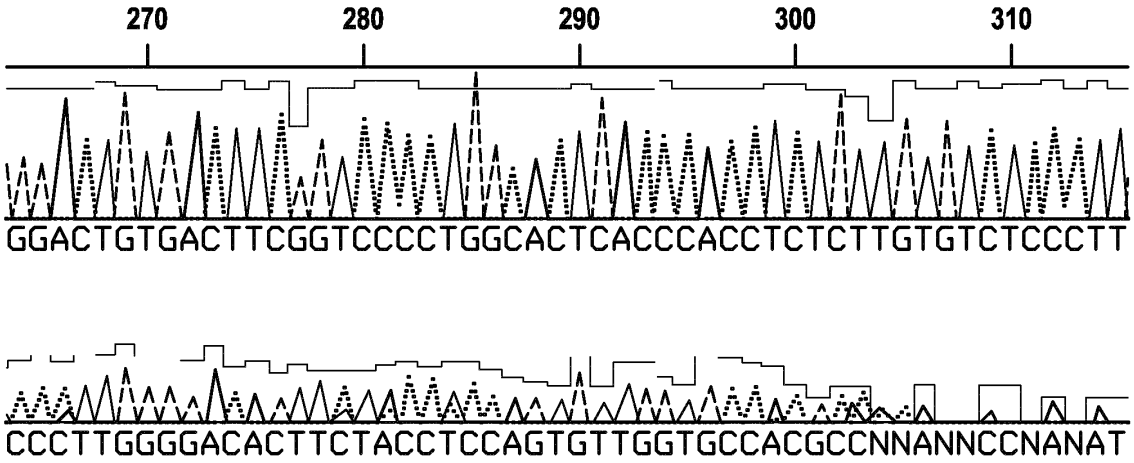
230
240
250
260
CAGGCTTGCCT CCCCATCC ACTGACTCTGGAGGGTCTAAAGTGCCACTG
CAGGGATGATGGCNTTTCCCCATCCTCTCCATGNCGT GTTCCATGNGTCT

Fig. 12 part 3


270
280
290
300
310
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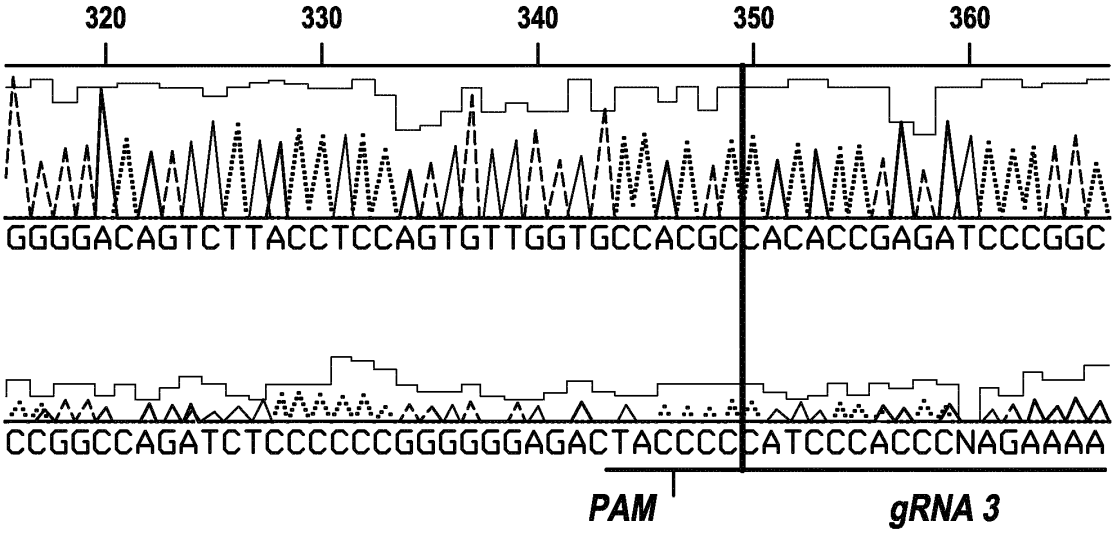
CCCTTGGGGACACTTCTACCTCCAGTGTTGGTGCCACGCCNNANNCCNANAT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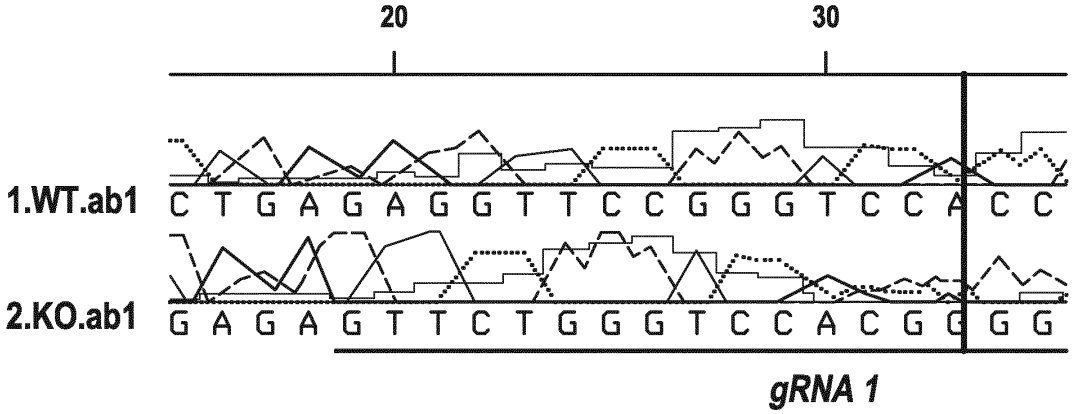
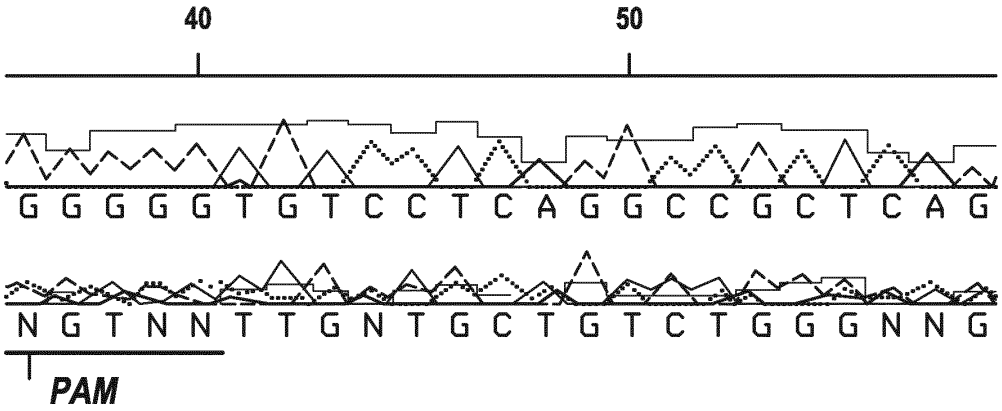
340
350
360
GGGGACAGTCTTACCTCCAGTGTTGGTGCCACGCCACACCGAGATCCCGGC
CCGGCCAGATCTCCCCCCGGGGGGAGACTACCCCCATCCCACCCNAGAAAA
PAM
gRNA 3

Fig. 13 part 1


20
30
1.WT.ab1
C T G A G A G G T T C C G G G T C C A C C
2.KO.ab1
G A G A G T T C T G G G T C C A C G G G G
gRNA 1


40
50
G G G G G T G T C C T C A G G C C G C T C A G
N G T N N T T G N T G C T G T C T G G G N N G
PAM

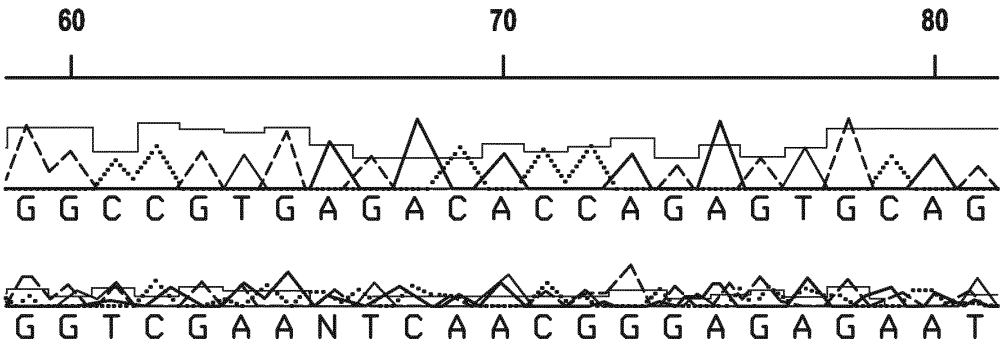

60
70
80
G G C C G T G A G A C A C C A G A G T G C A G
G G T C G A A N T C A A C G G G A G A G A A T

Fig. 13 part 2

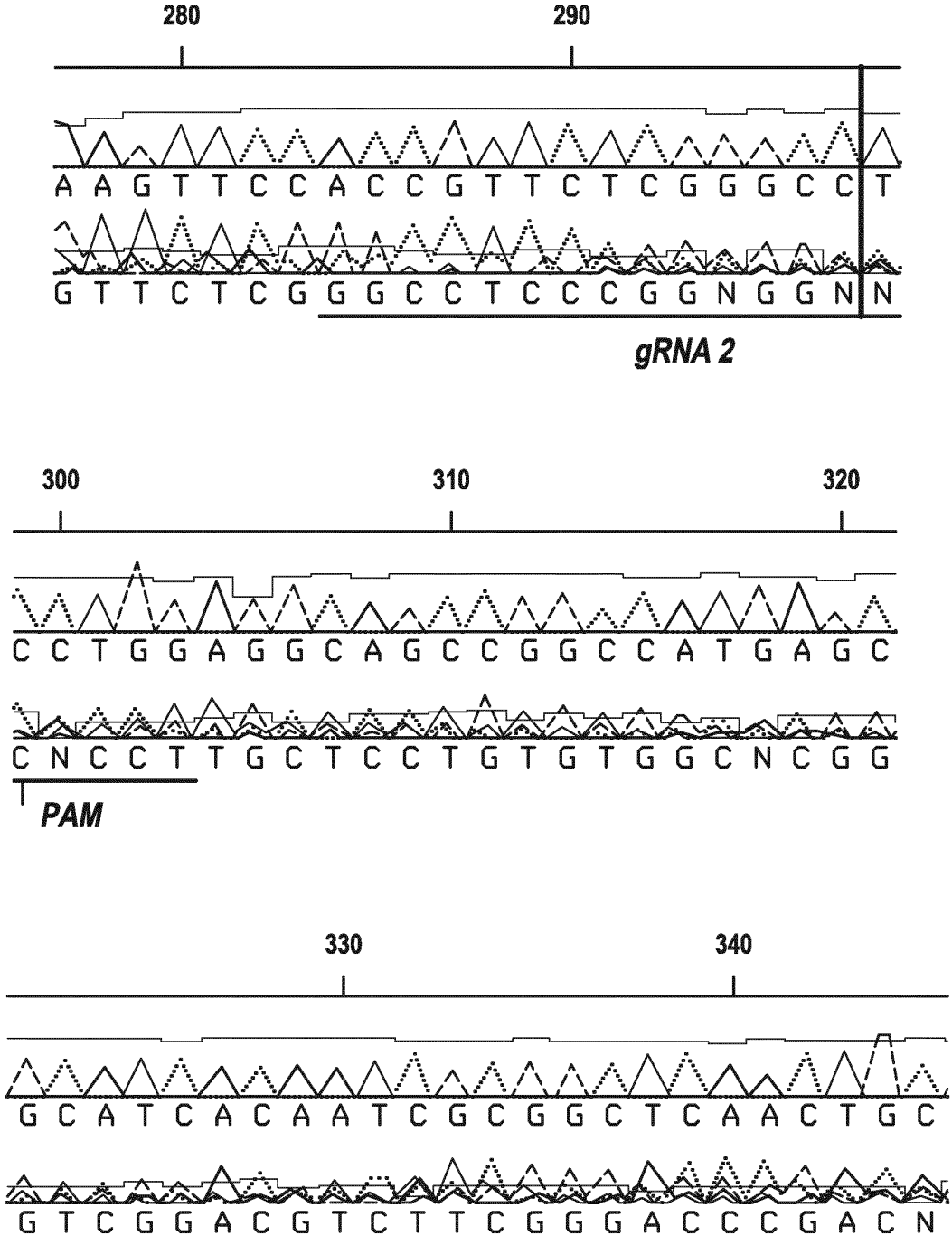
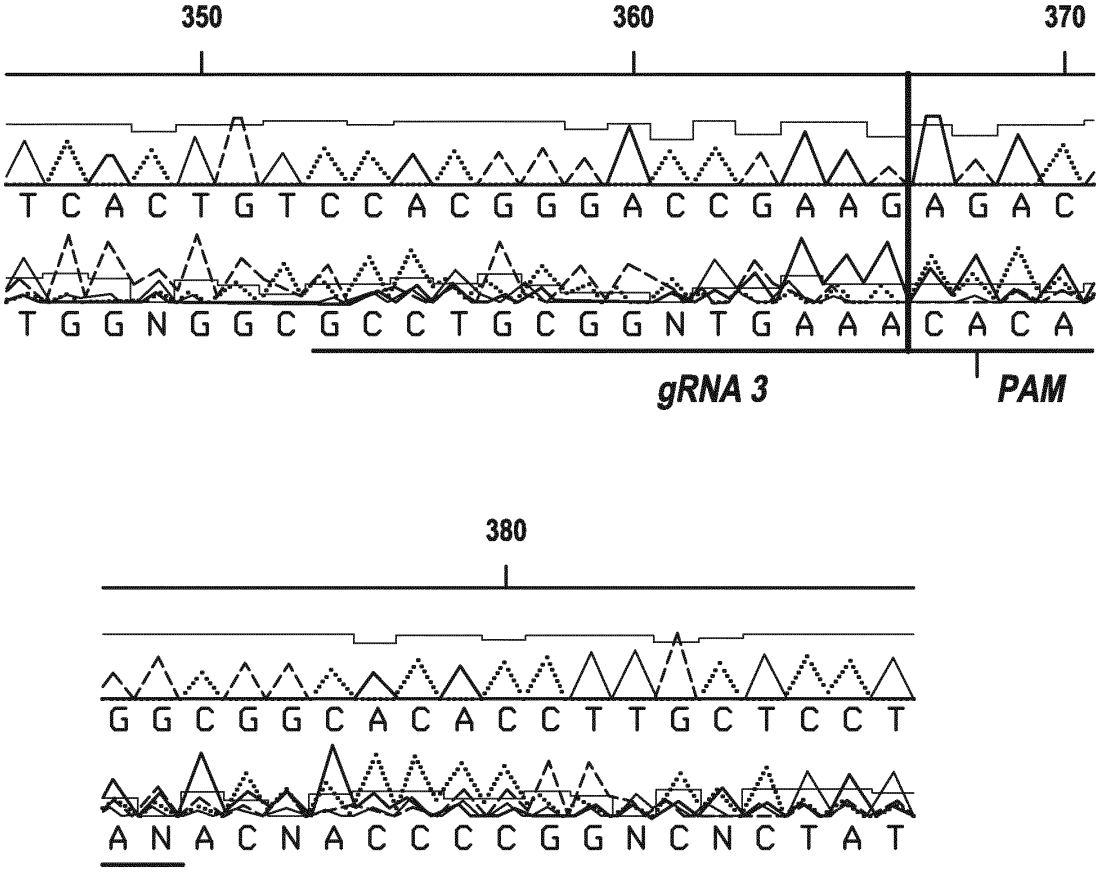

280
290
A A G T T C C A C C G T T C T C G G G C C T
G T T C T C G G G C C T C C C G G N G G N N
gRNA 2
300
310
320
C C T G G A G G C A G C C G G C C A T G A G C
C N C C T T G C T C C T G T G T G G C N C G G
PAM
330
340
G C A T C A C A A T C G C G G C T C A A C T G C
G T C G G A C G T C T T C G G G A C C C G A C N

Fig. 13 part 3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360
370
T C A C T G T C C A C G G G A C C G A A G A G A C
T G G N G G C G C C T G C G G N T G A A A C A C A
gRNA 3
PAM
380
G G C G G C A C A C C T T G C T C C T
A N A C N A C C C C G G N C N C T A T