Cas9(D10A) GTCTCCACCGAGCTGAGAGAGGTCGATTCTTGTTTCATAGAGCCCCGTA CAGAGGTGGCTCGACTCTCCCAGCTAAGAACAAAGTATCTCGGGGCAT

Cas9(D10A)

fragment-1:2596..65:2596

AGAACTTTGAATTTTTTGCTCGGCACCTTGTACTCGTCCGTAATGACGGCCCAACCGACGCTGTTTGTGCCGATAGCGAGCCCAATGGAGTACTTCTTGTCCAT TCTTGAAACTTAAAAAAC<mark>GAGCCGTGG</mark>AACA<mark>TGAG</mark>CA<mark>GG</mark>CATTACTGCC<mark>GGGTTGG</mark>CTGCGACAAACACGGCTATCGCTCGGGTTACCTCATGAAGAACAGGTA

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fragment-2:16001:2831															
TAATTG	ACTGATGAA1	CAGTGTGGCGT	CCA <mark>GG</mark> ACC <mark>T</mark> C	CTTTGTAGAGG	STGTACCGCTT	TCTGTCTAT	GGTGGTGTCG	AAGTACTTG	AAGGCTGCAGG	C <mark>G</mark> CGCCAA(GTTGGTCAGAG	TAAACAAGTO	GATAATGTT	TTCTGCCTGCT	CCCTGA
ATTAAC	TGACTACTT	AGT CACACCGCA	GGTCCTGGAG	GAAACA <mark>TCT</mark> CC	CACA <mark>TGG</mark> C <mark>G</mark> AA	A GACAGATA	CCACCACAGC	TTCATGAAC	TTCC <mark>G</mark> AC <mark>GT</mark> CC	GCGCGGGTT	CAACCA <mark>GTCT</mark> C	ATTTGTTCAC	CCTATTACAA	AA <mark>G</mark> AC <mark>GG</mark> AC <mark>G</mark> A	GGGACT
50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200

dna

Cas9(D10A)

fragment-2:1600..1:2831

Cas9(D10A)

fragment-2:1600..1:2831

TTTAATTGCATAAATCTCCCGTCACGGTCGAGCAATGGAAAGACGTCGAGCGGGCGTGATCGCTCGTAAGCAAAGGCCGGCAAAAGTTCCATGAACCCTTCGAATTACTACTCCAGAAAAAACTGGAGAAAAACTGGAGCTCTTTCAGCTACCCCAAAAAAAGCTTCGAACTAGCGAGGTA

Cas9(D10A)

fragment-2:1600..1:2831

Cas9(D10A)

fragment-2:1600..1:2831 AGACATGAAGCCAGAAAAATTGCTACAAGTGGACGCCGTACCTGTCCTGGAAGGCCTTTAGGGATTTCTTCATCATCATGAGAAGATTAGAGAGGTAACCGGTCACATTTAGAGAACTTTTTTAAGTATTATAACGACATTTTCTTCATG

Cas9(D10A)

fragment-2:1600..1:2831

Cas9(D10A)

fragment-2:1600..1:2831 CTTTCTGAAATCTGAGACCAGCTTAGACTTCAGAGTAATAACTTTCACCTCCGAATCAGTTTCTCATCGTTCATCGTTCTCAGCCTTCTCGAATCAGTTTTCATCCAACTCAGACACTCAGACACTCAGACACTCAGACACTCAGACACTCAGCCTCGTTCAGCCT GAAAGACTTTAGACTCTGGTCGAAGTCTCATTATTGAAAGTGGAGAGCTTAGTCAAACAGTAGACCACTAGACACTACTAGACCACTAGACCACTAGACCACTAGACCACTAGACCACTAGACCACTAGACACTACTACTAGACCACTAGACCACTAGACTACTACTAGACCACTAGACTACTAGACACTACTACTAGACACTACTAGACACTACTACTAGACCACTAGACTACTACTAGACACTACTACTAGACTACTACTAGACTACTAGACTACTACTAGACTACTAGACTACTAGACTACTAGACTACTAGACTACTACTAGACTACTACTAGACTACTACTAGACTACTACTAGACTACTA

Cas9(D10A)

fragment-2:1600..1:2831

ATCAGTCTAATAGCTTGAAGGCAACACACTAGTCAAACCGCAAGTCGTCGACGGCGGTTATTAAAAAGTAAAAGTAAAAAGTAAAAATAGCCTAGAACAGTTGTTGAAGAACTCTTTTCTGACCCCGTGCTATACTAGGTGCAGCACTCCAAGTCAAAAAATAGCCTAGAACAGTTGTTGAAAAAATAGCCTAGAACAGTTGTTGAAAAATAGTTATCTTAGTAGAACACTCTTTTCTGACCCCGTGCTATACTAGGTGCAGCATC

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596 AACCAAGAGCCCGGTAGAGCTATTGCTATAAGAGCCCGAATACGGAAGGCTAATGAAACTGCTCAAGTAGGTGCTCAAGTAGGGAAAACTATCCACGATCGCTACACGAGCCTTCTAATCGCTACACGAGCCTTCTAATCGCTACACGAAAGACCTACAGGAGGAATTTCCACT

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596 TCTTTCAAAAA<mark>GGGG</mark>TAGAAATCCTCTTGCCGCCTGAGGATAGCGTGCAGTTCGCCCAGGTGAATCTTGTCGAAAGTGCGCTGTTTGCCGCAACAGATCTTCTCTGTTAAGCTTTACCAGCAGCTCCTCGGTGCCGTCCATTTTTTCCAAGATGTGCGCTAATAAATTTGTAAAATTCCTCCTG

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596 TTCTTCTTCTCCCCAGGGAGCTGTGCGATGAGCTTTTCGAGCCGCCGGGATTTGGACAGCCTAGCGCTCAGGATTGCTTTGGCGTTCACTCCGAAAAGCTGATTGTAAGTCTGAACCAGTTTGTAAGTCTGACATCGCTGTTGTCTGGGTTCAGGTCCCCCTCGATGAG

Cas9(D10A)

fragment-1:2596..65:2596

Cas9(D10A)

fragment-1:2596..65:2596

GCAAGAAGTTAGTAGAAGGTTAGAAGTTTGTTGCATTCCCACTCCTGTTACAGGAGCTATGTAAAAGTCCTTAGAAAGTCCTCTAGCACTATGCAAGGGTCCTTAGCAACTTCGCTAGGAGGTGAGGCGACTAAAGTTGTCTCAGCTTTGTAAAGTTAGTAAAGTTAGAA

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fragment-1:2596..65:2596