

Data S1, Related to Figures 1-6: mRNA template sequences (+ve strand)

Cas9D10ANLS-2A-Puromycin (GenBank accession number: MG694578)

T7 Promoter
5'UTR Human beta globin
Cas9D10A

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TTGGACCCCTCGTACAGAAGCTAATACGACTCACTATAAGGACATTTGCTTCTGACACAACCTGTGTTCACTAGCAACCTCAAACAGACACCATGGACAAGAAGT
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Nucleo-
plasmin
NLS

2A-peptide

Puromycin-

3'UTR Human beta globin

CIDEA-ORF mRNA template (GenBank accession number: MG694579)

T7 Promoter

5'UTR AP2

CIDEA codon optimized ORF

5'TTGGACCCTCGTACAGAAGCTAATACGACTCACTATAGGGTCACAGCACCTCTGAAAACCTGCAGCTTCCTTCTCACCTTGAAGAATAATCCTAGAAAACCTCAAAAATG GAG GCC GCT AGG GAC TAT GCC GGC GCT CTG ATC AGG CCC CTG ACC TTC ATG GGG AGC CAA ACA AAG CGG GTG CTG TTT ACC CCC CTG ATG CAC CCC GCC AGG CCC TTC AGG GTG TCA AAC CAT GAT CGC TCA AGC AGA CGC GGC GTC ATG GCC AGC TCC TTG CAG GAG CTC ATT TCC AAA ACG CTG GAT GCG CTG GTC ATA GCA ACA GGT CTG GTG ACC CTC GTG CTC GAG GAG GAT GGC ACA GTC GTC GAC ACG GAA GAG TTT TTC CAG ACG TTG GGA GAT AAT ACC CAT TTC ATG ATT CTG GAG AAG GGC CAG AAA TGG ATG CCC GGC TCT CAG CAT GTA CCT ACC TGC TCC CCT CCA AAG CGC TCA GGC ATT GCT AGG GTT ACG TTC GAC TTG TAT CGG CTG AAT CCG AAG GAT TTC ATC GGC TGC TTG AAT GTT AAG GCC ACT ATG TAT GAA ATG TAC AGC GTT TCA TAC GAT ATC CGG TGC ACT GGA CTC AAG GGG CTC CTG AGA TCC CTG CTT CGG TTT TTG TCA TAT TCC GCA CAA GTG ACC GGC CAG TTC CTG ATT TAT CTG GGC ACC TAT ATG CTG CGC GTG CTC GAC GAT AAA GAG GAG AGA CCC TCC CTG AGATCCAAGCAAAGGCAGGTTACCTGCGGCTGAGCTCGCTTTCTTGCTGTCCAATTTCTATTAAGGTTCTTTGTTCCCTAAGTCCAACACTACTAAACTGGGGATATTATGAAGGGCCTTGAGCATCTGGATTCTGCCTGCTAAAAAACATTGTATTGTTTCATTGCGC

3'UTR HBB

CIDEA-3XHA-ORF mRNA template (GenBank accession number: MG694580)

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CIDEA-5XHis-ORF mRNA template (GenBank accession number: MG694581):

5'TTGGACCCTCGTACAGAAGCTAATACGACTCACTATAGGGTCACAGCACCTCTGAAAACCTGCAGCTTCCTTCTCACCTTGAAGAATAATCCTAGAAAACCTCAAAAATG GAG GCC GCT AGG GAC TAT GCC GGC GCT CTG ATC AGG CCC CTG ACC TTC ATG GGG AGC CAA ACA AAG CGG GTG CTG TTT ACC CCC CTG ATG CAC CCC GCC AGG CCC TTC AGG GTG TCA AAC CAT GAT CGC TCA AGC AGA CGC GGC GTC ATG GCC AGC TCC TTG CAG GAG CTC ATT TCC AAA ACG CTG GAT GCG CTG GTC ATA GCA ACA GGT CTG GTG ACC CTC GTG CTC GAG GAG GAT GGC ACA GTC GTC GAC ACG GAA GAG TTT TTC CAG ACG TTG GGA GAT AAT ACC CAT TTC ATG ATT CTG GAG AAG GGC CAG AAA TGG ATG CCC GGC TCT CAG CAT GTA CCT ACC TGC TCC CCT CCA AAG CGC TCA GGC ATT GCT AGG GTT ACG TTC GAC TTG TAT CGG CTG AAT CCG AAG GAT TTC ATC GGC TGC TTG AAT GTT AAG GCC ACT ATG TAT GAA ATG TAC AGC GTT TCA TAC GAT ATC CGG TGC ACT GGA CTC AAG GGG CTC CTG AGA TCC CTG CTT CGG TTT TTG TCA TAT TCC GCA CAA GTG ACC GGC CAG TTC CTG ATT TAT CTG GGC ACC TAT ATG CTG CGC GTG CTC GAC GAT AAA GAG GAG AGA CCC TCC CTG AGATCCAAGCAAAGGCAGGTTACCTGCGGCTAGTGGTGGTGGTAGTGTGAGCTCGCTTTCTTGCTGTCCAATTTCTATTAAGGTTCTTTGTTCCCTAAGTCCAACACTACTAAACTGGGGATATTATGAAGGGCCTTGAGCATCTGGATTCTGCCTGCTAAAAAACATTGTATTGTTTCATTGCGC

CIDEA(K23A)-3XHA-ORF mRNA template (GenBank accession number: MG694582):

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CIDEA(R44A)-3XHA -ORF mRNA template (GenBank accession number: MG694583):

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ACT ATG TAT GAA ATG TAC AGC GTT TCA TAC GAT ATC CGG TGC ACT GGA CTC AAG GGG CTC CTG AGA TCC CTG CTT CGG TTT TTG TCA TAT TCC
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