

**A**

CAS9-HA-NLS DNA sequence

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HA

NLS

**B**

**U6 promoter + target RNA + guide RNA scaffold:**

TGTACAAAAAAGCAGGCTTTAAAGGAACCAATTCAGTCGACTG  
GATCCGGTACCAAGGTCGGGCAGGAAGAGGGCCTATTTCCC  
ATGATTCCTTCATATTTGCATATACGATACAAGGCTGTTAGAG  
AGATAATTAGAATTAATTTGACTGTAAACACAAAGATATTAGTA  
CAAATACGTGACGTAGAAAGTAATAATTTCTTGGGTAGTTTG  
CAGTTTTAAAATTATGTTTTAAAATGGACTATCATATGCTTACC  
GTAACCTGAAAGTATTTGATTTCTTGGCTTTATATATCTTGTG

GAAAGGACGAAACACC**GNNNNNNNNNNNNNNNNNNNNNGTTTT**  
**AGAGCTAGAAATAGCAAGTTAAAATAAGGCTAGTCCGTTAT**  
**CAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTT**

<b>sgRNA</b>	<b>Strand polarity</b>	<b>Target sequence</b>
CR1	+	GCTTGTGACACGGACTCAAG
CR2	+	GGTCCTGCCGCTGCTTGTCA
CR3	-	GTAAACTGAGCTTGCTCGCT
GF1	+	GGAGCGCACCATCTTCTTCA