

Supplementary Table 2

Mb2 cut site
 Cas cut site
 Sense-strand
 Antisense-strand
 Insertion sequence
 Deletion sequence
3' mismatch tail

SITE 1

Mb2:

HDRT-B (Sense):

`ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGggcgccgtggcggttaccatacgcacgtccgga`
`ttacgctggccgcggccggctactttattatGGGGCAGGAACCCTGGTCACCGTCTCCTCAGGTGAGTCCTCACAAACCTC`
Jeko-HCDR3:
`ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGTTTGGAGTGGTTAACCTCCCTGACTA`
`|||||`
`TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCATGCCCCAAAACCTCACCAATTGAGGGACTGAT`
`CTGGGGCAGGAACCCTGGTCACCGTCTCCTC`
 3' mismatch tail = 34 nt
`GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG`

Mb2:

HDRT-B (Antiene):

`TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCccgcccgtggatgtgcacggct`
`aatgcgaccggccgcggccggatgaaactaataACCCCGGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGGAG`
Jeko-HCDR3:
`ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGTTTGGAGTGGTTAACCTCCCTGACTA`
`|||||`
`TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCATGCCCCAAAACCTCACCAATTGAGGGACTGAT`
`CTGGGGCAGGAACCCTGGTCACCGTCTCCTC`
 3' mismatch tail = 0 nt
`GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG`

Cas9:

HDRT-B (Sense)

`ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGggcgccgtggcggttaccatacgcacgtccgga`
`ttacgctggccgcggccggctactttattatGGGGCAGGAACCCTGGTCACCGTCTCCTCAGGTGAGTCCTCACAAACCTC`
Jeko-HCDR3:
`ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATA CGGGGTTTGGAGTGGTTAACCTCCCTGACTA`
`|||||`
`TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCATGCCCCAAAACCTCACCAATTGAGGGACTGAT`
`CTGGGGCAGGAACCCTGGTCACCGTCTCCTC`
 3' mismatch tail = 36 nt
`GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG`

Cas9:

HDRT-B (Antiene)

`TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCccgcccgtggatgtgcacggct`
`aatgcgaccggccgcggccggatgaaactaataACCCCGGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGGAG`
Jeko-HCDR3:
`ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATA CGGGGTTTGGAGTGGTTAACCTCCCTGACTA`
`|||||`
`TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCATGCCCCAAAACCTCACCAATTGAGGGACTGAT`
`CTGGGGCAGGAACCCTGGTCACCGTCTCCTC`
 3' mismatch tail = 0 nt
`GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG`

SITE 2

Mb2:

HDRT-B (Sense)

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGggccgcgtggcggtaccatcgcacgtccgga
ttacgctggccgcgcggcgactttgattatGGGGCAGGAACCCTGGTCACCGTCTCCTCAGGTGAGTCCTCACAAACCTC

Jeko-HCDR3:

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGGTTTTGGAGTGTTAACCTCCCTGACTA
|||||
TGTTACTGGTGTACCTGGACACCTGTGTCGGTCATAATGACACGTGCCATGGGGTTTTGGAGTGTTAACCTCCCTGACTA
CTGGGCCAGGAACCCTGGTCACCGTCTCCTC
|||||
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG

▲ 3' mismatch tail = 0 nt

Mb2:

HDRT-B (Antisense)

TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCCGCCGCGACCGCCATGGGTatgctgcaggcct
aatgcgaccggccgcggcccgatgaaactaataACCCCGGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGTTGGAG
3' mismatch tail = 31 nt

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGGTTTTGGAGTGTTAACCTCCCTGACTA
|||||
TGTTACTGGTGTACCTGGACACCTGTGTCGGTCATAATGACACGTGCCATGGGGTTTTGGAGTGTTAACCTCCCTGACTA
CTGGGCCAGGAACCCTGGTCACCGTCTCCTC
|||||
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG

▲

Cas9:

HDRT-B (Sense)

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGggccgcgtggcggtaccatcgcacgtccgga
ttacgctggccgcgcggcgactttgattatGGGGCAGGAACCCTGGTCACCGTCTCCTCAGGTGAGTCCTCACAAACCTC

Jeko-HCDR3:

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGGTTTTGGAGTGTTAACCTCCCTGACTA
|||||
TGTTACTGGTGTACCTGGACACCTGTGTCGGTCATAATGACACGTGCCATGGGGTTTTGGAGTGTTAACCTCCCTGACTA
CTGGGCCAGGAACCCTGGTCACCGTCTCCTC
|||||
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG

3' mismatch tail = 2 nt

Cas9:

HDRT-B (Antisense)

TGTTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCCCGCCGCGACCGCCATGGGTatgctgcaggcct
aatgcgaccggccgcggcccgatgaaactaataACCCCGGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGTTGGAG

Jeko-HCDR3:

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGGTTTTGGAGTGTTAACCTCCCTGACTA
|||||
TGTTACTGGTGTACCTGGACACCTGTGTCGGTCATAATGACACGTGCCATGGGGTTTTGGAGTGTTAACCTCCCTGACTA
CTGGGCCAGGAACCCTGGTCACCGTCTCCTC
|||||
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG

3' mismatch tail = 34 nt

SITE 3

Mb2:

HDRT-B (Sense)

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGggccgcgtggcggtaccatcgcacgtccgga
ttacgctggccgcgcggcgactttgattatGGGGCAGGAACCCTGGTCACCGTCTCCTCAGGTGAGTCCTCACAAACCTC

Jeko-HCDR3:

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGGTTTTGGAGTGTTAACCTCCCTGACTA
|||||
TGTTACTGGTGTACCTGGACACCTGTGTCGGTCATAATGACACGTGCCATGGGGTTTTGGAGTGTTAACCTCCCTGACTA
CTGGGCCAGGAACCCTGGTCACCGTCTCCTC
|||||

3' mismatch tail = 0 nt

Mb2:

HDRT-B (Antisense)

TGTTACTGGTGTACCTGGACACCTGTGCGGTGCATAATGACACGTGCC *ccgcccgcaccgccc*atggtatgctgcaaggcct
 aatgcgaccggcgccgcggccatgaaactaata *ACCCCGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGTGGAG*
Jeko-HCDR3: 3' mismatch tail = 40 nt
ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGG *ATACGGGTTTGGAGTGTTAA*
TGTTACTGGTGTACCTGGACACCTGTGCGGTGCATAATGACACGTGCC *TATGCCCAAAACCTCACCAATTGGAGGGACTGAT*

Cas9: ▲
HDRT-B (Sense)
ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGG *ggccgcgtggcggtacccat*acgacgtccgga
ttacgctggccgcggcgactttattat *TGGGCCAGGAACCTGGTCACCGTCTCCTCAGGTGAGTCCTCACAACCTC*
Jeko-HCDR3: 3' mismatch tail = 0 nt
ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGG *ATACGGGTTTGGAGTGGTTAACCTCCCTGACTA*
TGTTACTGGTGTACCTGGACACCTGTGCGGTGCATAATGACACGTGCC *TATGCCCAAAACCTCACCAATTGGAGGGACTGAT*

Cas9: ▲
HDRT-B (Antisense)
TGTTACTGGTGTACCTGGGACACCTGTGCGGTGCATAATGACACGTGCC *ccgcccgcaccgccc*atggtatgctgcaaggcct
 aatgcgaccggcgccgcggccatgaaactaata *ACCCCGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGTGGAG*
Jeko-HCDR3: 3' mismatch tail = 41 nt
ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGG *ATACGGGTTTGGAGTGGTTAACCTCCCTGACTA*
TGTTACTGGTGTACCTGGGACACCTGTGCGGTGCATAATGACACGTGCC *TATGCCCAAAACCTCACCAATTGGAGGGACTGAT*


SITE 4

Mb2:
HDRT-B (Sense)
ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGG *ggccgcgtggcggtacccat*acgacgtccgga
ttacgctggccgcggcgactttattat *TGGGCCAGGAACCTGGTCACCGTCTCCTCAGGTGAGTCCTCACAACCTC*
Jeko-HCDR3: 3' mismatch tail = 8 nt
ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGG *ATACGGGTTTGGAGTGGTTAACCTCCCTGACTA*
TGTTACTGGTGTACCTGGGACACCTGTGCGGTGCATAATGACACGTGCC *TATGCCCAAAACCTCACCAATTGGAGGGACTGAT*
CTGGGGCCAGGAACCCCTGGTCACCGTCTCCTC
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG


Mb2:
HDRT-B (Antisense)
TGTTACTGGTGTACCTGGGACACCTGTGCGGTGCATAATGACACGTGCC *ccgcccgcaccgccc*atggtatgctgcaaggcct
 aatgcgaccggcgccgcggccatgaaactaata *ACCCCGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGTGGAG*
Jeko-HCDR3: 3' mismatch tail = 23 nt
ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGG *ATACGGGTTTGGAGTGGTTAACCTCCCTGACTA*
TGTTACTGGTGTACCTGGGACACCTGTGCGGTGCATAATGACACGTGCC *TATGCCCAAAACCTCACCAATTGGAGGGACTGAT*
CTGGGGCCAGGAACCCCTGGTCACCGTCTCCTC
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG


GACCCCGGTCC**CTT**GGGACCAGTGGCAGAGGAG

Cas9:

HDR-B (Sense)

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGggcgccgtggcggtacccatacga
ttacgctggcgccggcgactttagttatGGGGCAGGGAACCTGGTCACCGTCTCAGGTGAGTCCTCACAAACCTC

Jeko-HCDR3:

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGTTTGAGTGGTTAACCTCCC
TGGTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCC TATGCCAAAACCTCACCAATT**GGA**GGGACTGAT
CTGGGGCAGGGAACCTGGTCACCGTCTCCTC
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG

3' mismatch tail = 7 nt

Cas9:

HDR-B (Antisense)

TGGTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCC ccgcgcgaccgcctatgggtatgctgcaaggct
aatgcgaccggcgcccgatgaaactaataACCCCGGTCCCTGGGACCAGTGGCAGAGGAGTCCACTCAGGAGTGGAG

Jeko-HCDR3:

ACAATGACCAACATGGACCCCTGTGGACACAGCCACGTATTACTGTGCACGGATACGGGTTTGAGTGGTTAACCTCCC
TGGTACTGGTGTACCTGGGACACCTGTGTCGGTCATAATGACACGTGCC TATGCCAAAACCTCACCAATT**GGA**GGGACTGAT
CTGGGGCAGGGAACCTGGTCACCGTCTCCTC
GACCCCGGTCCCTGGGACCAGTGGCAGAGGAG

3' mismatch tail = 29 nt