

ALU RESCUES

CLONE 1

[P12, P13, Q21, Q30, Q33, Q38, R32, R40, S16, T1, T29] these correspond to the identification labels assigned to the independently generated bacterial colonies that were recovered for *de novo* Alu insert Clone 1. The *de novo* Alu insert Clone 1 was independently recovered 11 times.

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 39,107,125

Strand: minus

DR: AAAAACATTCCACA

ENDOsites: TTTT/AA

Empty site:

```
ATTGGCATGTTATTGGGTATCAAGAAAATTAATGCACAAAACCACTTATTATCATTGTTATGAAATCCC
AATTATCTTTACAAAGTGTAAAGTTTGAACATAGAAAATAATCTCTCTGCTTAATTGTTAACTCAGAA
GACTACATTAGTGAGATGTAAGAATTATTAATATTCCATTTCCGCTTTGGCTACAATTATGAAGAAGTT
GAAGGTACTTCTTTTAGACCACCAGTAAATAATCCTCCTTCAAAAAATAAAAAATAAAAGAAAAAGGAAAA
TCATTTCAGGAAGAAATGACCTGTCTAAAAAACCTAAGGAAGAATAATAATATAAGAAAGGAAATTT AAA
AACATTCCACA ↓ AGAAGAAAAATTATTGTTTATACTTCTACTTATGGTTATATCTTATATTCTCTATTCAA
GTGACCTGTCTTTTAAAAAGGCAGTGCTGTCTTACCTCTTGCTAGTGGGTTAAATGTTTTCAAAAATTAT
AGCAGTAGTAGAAGTTTTGTATAAAATTTGTCCTTATTTGTTAATTGTATATAAATGTTAATTATTTGAT
ACGAATGTTATGCATTTAGTATGCACATTGAAGTCTAAACTGTAGAAGAGTCTAAAACAAGTTCTCTTTT
```

Filled site:

```
TCATTTCAGGAAGAAATGACCTGTCTAAAAAACCTAAGGAAGAATAATAATATAAGAAAGGAAATTTAAAAA
CATTCCACA GGCCGGGCGCGGTTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGC
GGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAA
AAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAG
GCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcasse
tte] AAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAC
ACACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
CATTCCACAAGAAGAAAAATTATTGTTTATACTTCTACTTATGGTTATATCTTATATTCTCTATTCAA
GTGACCTGTCTTTTAAAAAGGCAGTGCTGTCTTACCTCTTGCTAGTGGGTTAAATGTTTTCAAAAATTAT
AGCAGTAGTAGAAGTTTTGTATAAAATTTGTCCTTATTTGTTAATTGTATATAAATGTTAATTATTTGAT
ACGAATGTTATGCATTTAGTATGCACATTGAAGTCTAAACTGTAGAAGAGTCTAAAACAAGTTCTCTTTT
TGC
```

No repetitive sequences in the immediate proximity.

CLONE 2

[Green 89, Brown 99, C37, C43, G199, G200, K12, K15, K37, N1, N9, N11, N17, P28, P37, Q15, R29, R49, S28, U5]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 97,894,942

Strand: plus

DR: AAAAGTGAACGGGTT

ENDOsites: TTTT/GA

Empty site:

```
TGAAAAGTTTCAGTCTGTACAGTAAATGACAATCTAGGGCTAATACCTCACTTGATGTAGGAGCTACCAA
CCGTGGCAGACAGCATGACTCGACAGCAGTCCAGTCCACCGCACGGAAGCCAAAGGGGAAGCCTC↑AAAAG
TGAACGGGTT↓TTGAAAACCTTTTCTTTTATTTTAGATGTAAATACATACATAGTCATTTGGAACCTCAGGT
AATAAGAGACTAATCCCTCATTATTCATGGTCTTAATGGAAAATATCAGACCTGCGAGTCCAAGAGGCCA
AAGAACATTTGGGAAGGTCATTTCACTTTGTACAACCTGTACCACACTTTTATCTTTTGTTTTGTTACA
TTTTGGTAACTATAGAATTTCCAGGACTCATTCTGCATAGTCCCAAGAGAGAGAAATATAATTAACAGTG
```

Filled site:

```
TGAAAAGTTTCAGTCTGTACAGTAAATGACAATCTAGGGCTAATACCTCACTTGATGTAGGAGCTACCAA
CCGTGGCAGACAGCATGACTCGACAGCAGTCCAGTCCACCGCACGGAAGCCAAAGGGGAAGCCTCAAAAG
TGAACGGGTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGC
GGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAA
AAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAG
GCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcas
te] AAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGTGAACGGGTTT
GAAAAC
TTTCTTTTATTTTAGATGTAAATACATACATAGTCATTTGGAACCTCAGGTAATAAGAGACTAATCCCTCAT
TATTCATGGTCTTAATGGAAAATATCAGACCTGCGAGTCCAAGAGGCCA
```

No repetitive sequences in the immediate proximity.

CLONE 3

[P34, Q20, S3, S17, S18, T7]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 19,921,248

Strand: plus

DR: AAAAACTTGGTGATTCT

ENDOsites: TTTT/AT

Empty site:

```
AGTCAGACCAAGAACCCACCAATTCCGGACACAAAAGGTGTTCCACCATTCCCTGTCCTCTTACTTCTCTCG
CCTTACAAGTAGGTAACCATTGTTGTTAGTTACTTATGTACCTTCCAAAGTTTCTTCATGCAAATACAAGCA
AATATGAATCAGATTCTCCATTTCTCCTTTTTTGCACAAATAGTAGCATTATTCTCTATCTGGTCTTCATCC
TGTGTTTTTATTTCTTGGTATATCACAAAGATCGTCACATACCAACTGCTTGCTCTTTATAATGTCCCCTTA
GGTCTTCCCAAGAATATCTAATAATTTCTTCTATGTGCTCTAGTAATTATCTTTGCTTGGGTTTGTGTTCTG
TTGATTCAGTGTCCCTGTTTCATCATACTGAAT ↑AAAAACTTGGTGATTCT ↓TTATGTGTTTCATCTTCCAAG
TTTGAGAATTCCTTTTTTCTGTCTTACTAGGCGTAGCGTGCCTCCTGTGATTGTTGAAGAGCTGTGGTGTG
CTGCTGAGTGGCGTGTGTATTCCATGTGAGGGGAAGGGTCCAACAGTCCTGGTCATTTCAGACTGCAGTTCCC
CAGGTAATCACCTTGTCTAGGTTCTACCTCTGCTGTTCTATCTGCTGTTACAAGTCTGTTTCTGGAAACCTGT
```

Filled site:

```
TGTCCCCTTAGGTCTTCCCAAGAATATCTAATAATTTCTTCTATGTGCTCTAGTAATTATCTTTGCTTGGGT
TTGTGTTCTGTTGATTCAGTGTCCCTGTTTCATCATACTGAATAAAAACTTGGTGATTCTGGCCGGGCGCG
GTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCGGAGGCGGGCGGATCACGAGGTCAGGAGAT
CGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAATACAAAAATTAGCCG
GGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACC
CGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] AAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAACTTGGTGATTCTTTATGTGTTT
ATCTTCCAAGTTTGAGAATTCCTTTTTTCTGTCTTACTAGGCGTAGCGTGCCTCCTGTGATTGTTGAAGAG
CTGTGGTGTGCTGCTGAGTGGCGTGTGTATTCCATGTGAGGGGAAGGGTCCAACAGTCCTGGTCATTTCAGAC
```

LTR and L1 at 5'.

CLONE 4

[R37, R43, S13, U10]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 20

5' position: 7,130,649

Strand: minus

DR: AGAAAATCCACTCACTT

ENDOsites: TTCT/AA

Empty site:

```
AAGAAATTTCCACTCTAACACTCATTCTGCCACCATAATTTTCCAGGGTCAGATGCTTAAGGCAATGTT
CTAAGTTCATAATTAAGTTTAGTTGCATGCACAATTTGGGTAGTTAAGTAATTACATGATTTGCACATGCAA
ATACTGCAATCATTGGCACATAAAAATAACGTCTTTAAACATCTGGGCCTGATGGAGGACAAATGGTCAGG
AAAATCAGAATTTCTGTGGTTCCCAAAGGGATCACTATAAACAGGAAACACTACAATCTGTTCTCAGACAT
TT↑AGAAAATCCACTCACTT↓CCCAAAGGGATCACTATAAACAGGAAACACTACAATCTGTTCTCAGACATT
TAGAAAATCCACTCACTTTAACCTAGAGAAAAGAAGCAACATGGAGGCATTCTAACTTCGACTTCTCCTCTC
CAAACTATCCAGGTACCGAATAAGCTATTTGTAACCATGAAATGTCTGAACACTAATCAGAACATTTGAGT
GTAAAATACAGTCTTACCCTGAAGAGGTTGAAAAGTTTGAACAAATCACTTAATCCCTGAGTCTCCTAAT
ATTAATCTCTAAAATAGGAATAATAACAATATCAACACTATAGGATTGAAAAGAGAAATAAATGAGATAAAT
```

Filled site:

```
AAGAAATTTCCACTCTAACACTCATTCTGCCACCATAATTTTCCAGGGTCAGATGCTTAAGGCAATGTT
CTAAGTTCATAATTAAGTTTAGTTGCATGCACAATTTGGGTAGTTAAGTAATTACATGATTTGCACATGCAA
ATACTGCAATCATTGGCACATAAAAATAACGTCTTTAAACATCTGGGCCTGATGGAGGACAAATGGTCAGG
AAAATCAGAATTTCTGTGGTTCCCAAAGGGATCACTATAAACAGGAAACACTACAATCTGTTCTCAGACAT
TTAGAAAATCCACTCACTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCC
GAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTC
TACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTGGTCCAGCTACTCGG
GAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCA
CTGCA... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAATCCACTCACTTCC
CAAAGGGATCACTATAAACAGGAAACACTACAATCTGTTCTCAGACATTTAGAAAATCCACTCACTTTAAC
TAGAGAAAAGAAGCAACATGGAGGCATTCTAACTTCGACTTCTCCTCTCCAAAATATCCAGGTACCGAATA
AGCTATTTGTAACCATGAAATGTCTGAACAC
```

A MIR at the 3'.

CLONE 5

[P4, P21, P26, P19, P18 Q3, Q7]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 90,412,031

Strand: minus

DR: AAACTAACAGGAGG

ENDOsites: TTTT/AA

Empty site:

```
GCAGTAGATACTAGTAGAATACTCACGTGACTTTAATGACTACCTAAGGTCTATGCCACCTAAGATGCATCA
TGACACAAACATAAGGGGTGGGAGAGAGATATAATTATAATCTTCAGGTGTTTAGATGCATTTTCTTGTGTG
CAGCTGCTATTATCTCTACTTATCATTGATGTGTCTATTTTATATTCTGGCAGCAATGATTATTCCTAATTAT
ATATGGGAAAATAAATTGTAATATGTATTTAATACAAACACTCTGTCTATTTGGGTAGTTATGTCAAACGGTT
AATCATGTTT↑AAACTAACAGGAGG↓ACAGATTAGGGGGCAAAAATATGTTATGAAAAGACAACCCTCTTT
TTCCATAGTCTTGATTTAAAATTTAACCTAAAGGTTAGAAAAATGGTTTCAAGACGCATATTAGTATTTTTTA
CCAAAGAACAGTTTCTCCTTGGAACATAAAGAATTCTTTTGAATCAGAATATCTCTGCAAACAACAGTCTCT
TCCTTGTGAGACTCGTCTCTCATGTTCAACCCCTTACTTCTGCCCATGGTAGGACAAGGCAAAAAGAATCCA
```

Filled site:

```
GCAGTAGATACTAGTAGAATACTCACGTGACTTTAATGACTACCTAAGGTCTATGCCACCTAAGATGCATCA
TGACACAAACATAAGGGGTGGGAGAGAGATATAATTATAATCTTCAGGTGTTTAGATGCATTTTCTTGTGTG
CAGCTGCTATTATCTCTACTTATCATTGATGTGTCTATTTTATATTCTGGCAGCAATGATTATTCCTAATTAT
ATATGGGAAAATAAATTGTAATATGTATTTAATACAAACACTCTGTCTATTTGGGTAGTTATGTCAAACGGTT
AATCATGTTTAAACTAACAGGAGGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGG
AGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCC
GTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTGGTCCCAGCTA
CTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCC
CGCCACTGCA... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAGAAAAAAAACTAACAGGAGGACAGATTAGGGGGCA
AAAATATGTTATGAAAAGACAACCCTCTTTTTCCATAGTCTTGATTTAAAATTTAACCTAAAGGTTAGAAAA
ATGGTTTCAAGACGCATATTAGTATTTTTACCAAAGAACAGTTTCTCCTTGGAACATAAAGAATTCTTTTGA
ATCAGAATATCTCTGCAAACAACAGTCTCT
```

No repetitive sequences in the immediate proximity.

CLONE 6

[M18 ,M24, M52, M68, R5, R27b, S19, S25]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 45,784,963

Strand: minus

DR: AATTGAATGCAGAT

ENDOsites: AATT/AA

Empty site:

```
TTCACAGAAGCAAGAAAATGAAAATATATTTGCTTGCTTAAAGTGAAATACCCCTAGATATGTTACAGGTAG
TTAGACATGTATGAGCAGGACAGAAGAAGACTCTCCCCACCTACTAGGAATGTTGGGTGATGGCTTGGCAA
TTACCACATTGCCTCTCTAAATGTGATAAGTTGGCAGCTAGCACCAGGGAGAGGCTATTTCTTGATGGTCCA
CACCAGTTGCACTAAAGTGTT↑AATTGAATGCAGAT↓ATGGTCCACACCAGTTGCACTAAAGTGTTAATTGA
ATGCAGATGCCAGGGAGAAGCAACTTCCTGGGTATGTGCATTAAGAGACAAAATGGTGGAATATGACCTTCC
AGGGGTACTTCACCAGGAAAGGGAGGAAAAGCCTCAGATGGGCGTGCCTACAACCTTCTAAACACACTGTGC
CTGCTCATCTCCTAAGGGTAAGGAGGGAAGTGCACATGTGAGCAGCTCACCTAAGGGAAGAATCATGGGAA
```

Filled site:

```
TTCACAGAAGCAAGAAAATGAAAATATATTTGCTTGCTTAAAGTGAAATACCCCTAGATATGTTACAGGTAG
TTAGACATGTATGAGCAGGACAGAAGAAGACTCTCCCCACCTACTAGGAATGTTGGGTGATGGCTTGGCAA
TTACCACATTGCCTCTCTAAATGTGATAAGTTGGCAGCTAGCACCAGGGAGAGGCTATTTCTTGATGGTCCA
CACCAGTTGCACTAAAGTGTTAATTGAATGCAGATGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAG
CACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGG
TGAAACCCCGTCTCTACTAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTGG
TCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAG
CCGAGATCCCGCCACTGCA... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATT
ACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
TTAATTGAATGCAGATGCCAGGGAGAAGCAACTTCCTGGGTATGTGCATTAAGAGACAAAATGGTGGAATAT
GACCTTCCAGGGTACTTCACCAGGAAAGGGAGGAAAAGCCTCAGATGGGCGTGCCTACAACCTTCTAAACA
CACTGTGC
```

LTRs (ERVs) .

CLONE 8

[P15, Q41]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 75,863,870

Strand: minus

DR: AAGAGTAATATA

ENDOsites: TCTT/AA

Empty site:

```
ACAGGCTATATATATACTTTAACATTTTAGGGCTGGTACCACCTATAAAGTAAATGTTTTGGGAATGTTTGA
TGGAGGAGAAAGCTCACCCTTGTGGACAAGAAATGACAACCCCTTCCGACACAACCTGTTATGCCAATTTT
ATCTTCTGGTAAGAAATTGAGTTACATTCCTTGAGGAAAACAACCTTAGGAAACTATTTCAAATGTGAAGTGT
TAGGGTATCATAACAATGGAAAACAATGATACAAATTTTACACTAAAATTTATTTCAATAATTTACATACTTA
GCAAAAAAATTCTTCAAACATCCAGTCAAGCATGCTTTTTGACAGTATTTTTTATACTTCTTTTATCAGCA
TTGCATTATTTTACTTAAATTATTACATAAATCTATTTTT↑AAGAGTAATATA↓TAATTATTAATGTATT
AATAATTATTAGTGATGTAATTAATGTAGTAATTTTAAATTATGTAATAACGCATAATTTAAAATTGTGCAT
TAAATTTATTAATGCATTTAAATATTAATTTAAAATTATGCATTATTGCATAATTAAGCTCTATTATTTAA
AGAGTTTTTACTAAATGTAGATATTGTACCGTTTTCTATTTTTAATGACTAAGATGCAGTTTTCTTTTGTTA
```

Filled site:

```
ACAGGCTATATATATACTTTAACATTTTAGGGCTGGTACCACCTATAAAGTAAATGTTTTGGGAATGTTTGA
TGGAGGAGAAAGCTCACCCTTGTGGACAAGAAATGACAACCCCTTCCGACACAACCTGTTATGCCAATTTT
ATCTTCTGGTAAGAAATTGAGTTACATTCCTTGAGGAAAACAACCTTAGGAAACTATTTCAAATGTGAAGTGT
TAGGGTATCATAACAATGGAAAACAATGATACAAATTTTACACTAAAATTTATTTCAATAATTTACATACTTA
GCAAAAAAATTCTTCAAACATCCAGTCAAGCATGCTTTTTGACAGTATTTTTTATACTTCTTTTATCAGCA
TTGCATTATTTTACTTAAATTATTACATAAATCTATTTTTAAGAGTAATATAGGCCGGGCGCGGTGGCT
CACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGAC
CATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGT
GGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGA
GGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] AAAAAAAAAA
AAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAGTAATATATAATTATTAATGTATTAAAT
ATTAGTGATGTAATTAATGTAGTAATTTTAAATTATGTAATAACGCATAATTTAAAATTGTGCATTAATTT
ATTAATGCATTTAAATATTAATTTAAAATTATGCATTATTGCATAATTAAGCTCTATTATTTAA
```

No repetitive sequences in the immediate proximity.

CLONE 9

[N4, N7, P7, R3]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 38,298,267

Strand: minus

DR: AAAATGATGGATGC

ENDOfsite: TTTT/AT

Empty site:

```
AGTACCCAGCTGTAACACCCTACTTAGCCCTATCCCAGTGCTATCCCCTATCAGCAAGTGGTACAATTGC
TTGAATGTTTTGTCTGACTTCCTTATTGAGTTGTAAGATCTCTAAAGATAGGAATTTTGTATAGTGTTCA
CTATTCCATCCTCAAGGGCTTAACAGATTCTAAAATGTAGTAACAGTTCTAAAAATGTAATAGACAAAATC
TTTGATCCACCATCCAATTCCCCCTATATATAATCCCATTACCAGAACTCAGGAGTCCACTCAACAACCC
AGGAAACAAACACTTACTCTGATGGCATCTCTAGTAGTTTATCCAAAAGACAGGAAACTTTCTCCTAAAA
ACAGAAAAATCCCCACCTAT † AAAATGATGGATGC ‡ TCTTGGCACAAAACATTCCGAATCCTACCCTTTCAA
AGTCTTCAGATAGATTTGGAAAAAATAACCAATTGGCTGGCTTCTCAACCTACACTGCATAAAACAAC
TGTCAAACATCTTTTCAGAGGACTTCAAGATATCCTCACTCTCTTATTTAGAACCTCATATTCTTCAGACA
GGAAGAGAAGCCAACCTAACAGTATAACACCTGTGGCTTGAGACGGCGTGCCCCAAGTTTTCCCTAGGTCT
```

Filled site:

```
TAGACAAAATCTTTGATCCACCATCCAATTCCCCCTATATATAATCCCATTACCAGAACTCAGGAGTCCACT
CAACAACCCAGGAAACAAACACTTACTCTGATGGCATCTCTAGTAGTTTATCCAAAAGACAGGAAACTTTCT
CCTAAAAACAGAAAAATCCCCACCTATAAAAATGATGGATGC GGCCGGGCGCGGTGGCTCACGCCTGTAA
TCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTA
ACACGGTGAAACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCG
CCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTG
CAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGATGGATGCTCTT
GGCACAAAACATTCCGAATCCTACCCTTTCAAAGTCTTCAGATAGATTTGGAAAAAATAACCAATTGGCTG
GCTTCTCAACCTACACTGCATAAAACAACCTGTCAAACATCTTTTCAGAGGACTTCAAGATATCCTCACTCTC
TTATTTAGAACCTCATATTCTTCAGACA
```

LINE2 at 5'.

CLONE 10

[R26]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 78,080,203

Strand: plus

DR: AAAAATGAAAACAAC

ENDOsites: TTTT/AA

Empty site:

```
TTCAAGCACAGAAACATACTCTTGAGAGTGTAAGTGATCCTAGACGTTTCTGACTTCTCTCCTGTTTCATTA
AAAGACATGGTGGGAGATGTGAGGAAAAGAATTTACATCTCAACAATGTTATACTCTAAATTCATATTTTAG
TAAAAGCATGACACACAGCTGTATGCGTATTTTTGATGGCACAGTTGGCAACATTTCCCCCCCAGAAAGAGG
GGAAAGATAGGTAGAGGTTGGAGCACAAAGCACATCGCTTTAATT ↑ AAAAATGAAAACAAC ↓ TTTTAAAAAAT
GTTAAGATATTGTATTGCTCTCATGTAGTTACCAAGATCTCTCTTTTGTATAAGAAAGAAAAATATTCACAG
ACAATATTCCTCCATCTGAGAGTGTAAGAAAGCTCCAGATCTGAAGTCTGTATTAATAACTGGTGAGAAGT
AGTTTTCTAGAAGGGATACTGCAGCCCTCACAGCATTCCAACAGACCGTTCTTCCAATGCCACCAATGTGC
```

Filled site:

```
TTCAAGCACAGAAACATACTCTTGAGAGTGTAAGTGATCCTAGACGTTTCTGACTTCTCTCCTGTTTCATTA
AAAGACATGGTGGGAGATGTGAGGAAAAGAATTTACATCTCAACAATGTTATACTCTAAATTCATATTTTAG
TAAAAGCATGACACACAGCTGTATGCGTATTTTTGATGGCACAGTTGGCAACATTTCCCCCCCAGAAAGAGG
GGAAAGATAGGTAGAGGTTGGAGCACAAAGCACATCGCTTTAATTAAAAATGAAAACAACGGCCGGGCGCGG
TGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATC
GAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGG
GCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCC
GGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] AAAAAAA
AAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAACACACAAAAATGAAAACAACTTTTAAAAAATGTTAAGATATTGTATTGCTCTCATG
TAGTTACCAAGATCTCTCTTTTGTATAAGAAAGAAAAATATTCACAGACAATATTCCTCCATCTGAGAGTGT
AGAAAGCTCCAGATCTGAAGTCTGTATT
```

No repetitive sequences in the immediate proximity.

CLONE 14

[032]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 54,194,943

Strand: plus

DR: GAAAAGATGT

ENDOfsite: TTTC/AT

Empty site:

```
CACAAGCACACAGTATATTTAAGTATGGCATTAGAAAACATATGTCAGTCAGTAAGACAATGCCCTGTGAGTG
GTAACCACAATTAAGTGCTATTGGAATTCTGGGAAGGGAGGGAGAATTGTGAGGGACTGGCTAGAGAAAAC
TCATAGAAGTGGTAGGATTTTAAGAAAAATTTGAGAATAGACAGAACATTCTACATTAATGAAATGACTCA
TAGTTATGGAAGCAAGAAAGCAAAGGTATTCTACACACACTAAACAGAGCTTTCTCTAAACTTTTTGAAGT
CCAGGATGATATATATTCACATTTGATTTCTTAGCATACCGAATATATAGTAGCTAGATGTTCAATGTATAT
TTGTTCAATGAATGAAACAATGAATGACCCATTTATCTGGCACAGAGGGTTCATGTGAGGGCATTGTTGAAAG
AGATGAATAGAAGTGTAGGCTCTAGAAGAGGGGAT † GAAAAGATGT ‡ GTAAAACTGCTTAAATGAGATCTT
TCTTGAGTCAGTGGGCAGATAACTTAGAAAAGAGATGAGAGGCAGGGGAGAAGCTTTTAGGATGCTTATGTAGA
AGCTTAGATGATAAATGCTAAAAGACTAACTAGGACCATGGCATGCAAATAGAAATGCATGGATGGAAGTA
CCAACATTGTGAAAATGTGATGAACAAAACCTTGTTACTAATGGACTTTGGTGGCGTAGCGGTGGGGAGGGT
```

Filled site:

```
CACAAGCACACAGTATATTTAAGTATGGCATTAGAAAACATATGTCAGTCAGTAAGACAATGCCCTGTGAGTG
GTAACCACAATTAAGTGCTATTGGAATTCTGGGAAGGGAGGGAGAATTGTGAGGGACTGGCTAGAGAAAAC
TCATAGAAGTGGTAGGATTTTAAGAAAAATTTGAGAATAGACAGAACATTCTACATTAATGAAATGACTCA
TAGTTATGGAAGCAAGAAAGCAAAGGTATTCTACACACACTAAACAGAGCTTTCTCTAAACTTTTTGAAGT
CCAGGATGATATATATTCACATTTGATTTCTTAGCATACCGAATATATAGTAGCTAGATGTTCAATGTATAT
TTGTTCAATGAATGAAACAATGAATGACCCATTTATCTGGCACAGAGGGTTCATGTGAGGGCATTGTTGAAAG
AGATGAATAGAAGTGTAGGCTCTAGAAGAGGGGATGAAAAGATGT GCCGGGCGCGGTGGCTCACGCCTGT
AATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGC
TAAACCGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGG
CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCT
TGCAGTGAGCC... [NEOcassette] AAAAAAAAAAAAAAAAAACTTACAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GAAAAGATGTGTAAAACTGCTTAAATGAGATCTTTCT
TGAGTCAGTGGGCAGATAACTTAGAAAAGAGATGAGAGGCAGGGGAGAAGCTTTTAGGATGCTTATGTAGAAGC
TTAGATGATAAATGCTAAAAGACTAACTAGGACCATGGCATGC
```

LINE1 at 5'.

CLONE 15

[034]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 149,112,532

Strand: plus

DR: AAAAATTTTGAACCTTG

ENDOsites: TTTT/AA

Empty site:

```
AGACTGCCAAAGGGGTTTCATGACACAAAATAAATTA AAAAATTTACAGCATCGTGTATATAATAGCAAATGAT
CAAAGCAACCAAAAAGTGGAAACTGACCAAAAACCATTTGTACCTTGCTATAGTGAATACTCTGCAGCTGAAA
AAAAAAGGAATGAAGAATCTGCCTAATAAAAATGAAACAATATCCAAGATATTTTACAGAGAGTAAAGCAGG
ATACAAAATAATTTATGTAGCAAGCTGCTACTTGT TTTAAAAAAAATGAAAGAGAGAGTGAATATATACAAAT
GTCTGTTTGCTTGTATGTGCATAAAAATAGCTCTGGAGGACACACAGTAAACTGATAATATTGGTGGCTTCTG
GGGATGAGA AACTGGGTGGTTTTGGGGCTGGAGTGTTATGGAGACTTTTTTCCTGATAAAACCTACAGGACCTTT
↑ AAAAATTTTGAACCTTG ↓ CAAAAGTATAATCTATTCAAAAATTA AATTTAAAAAAGGGAACACTTAAGAAC
TCCTTACTGGAGTCTGTACAGGAGATT CATA CATAGCCCCAAGGCAACACCTGGTCGAGTCCTGTCTCTCCT
CCTCTGTGGAGCCTCAGCCTGCTCTGCAGCAAGCCTTGTAGCTTCTATGCCCTCAATCTCCTATTCTGAACC
```

Filled site:

```
ATACAAAATAATTTATGTAGCAAGCTGCTACTTGT TTTAAAAAAAATGAAAGAGAGAGTGAATATATACAAAT
GTCTGTTTGCTTGTATGTGCATAAAAATAGCTCTGGAGGACACACAGTAAACTGATAATATTGGTGGCTTCTG
GGGATGAGA AACTGGGTGGTTTTGGGGCTGGAGTGTTATGGAGACTTTTTTCCTGATAAAACCTACAGGACCTTT
AAAAATTTTGAACCTTG GGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGA
GGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTA
CTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGA
GGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACT
GCACTCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAATTTGAACCTTGCAAAAAGTATAATCTATTCAAAAATTA AATTTAAAAAAGGGAACA
CTTAAGA AACTCCTTACTGGAGTCTGTACAGGAGATT CATA CATAGCCCCAAGGCAACACCTGGTCGAGTCCT
GTCTCTCCTCCTCTGTGGAGCCTCAGCCTGCTCT
```

LINE1 at 5'.

CLONE 17

[U23]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 10

5' position: 91,344,768

Strand: plus

DR: AAAAAATATAAATTTTT

ENDOsites: TTTT/AG

Empty site:

```
AATTTATTGGACACCTACTTATATATATTTAAATACATTCACATATGTAAATGCTTAGAACTATGTCTGGTAC
ATGTGTGCTAAGTGTGTGCCAGGGTTGTTAGTATTATAACTATTTTCATCTTTATCTTTGTGCATGGCAAAACA
CTGACTATTATTTTCACATATGAGAAATGGATAAAGTAAATTACCCTTGCCAGGGTCACAGGTCTTGTACCAGG
GCTCAATACCAAATCTGTCTGACTTTAAAGCTATATTTTCATGAGAGAAAACCCCTAAACTTCCCTCAGTAGCT
CTTGCAAAGGCACTTAAATTAGTCCAAGCCTTACTTTGCCCATCTGTAAAATAAAAGACCATAACGTCTATGA
AAATGAAAGGAACT↑AAAAAATATAAATTTTT↓AGAGAACTATGTGTTAGTTTGTTCAGGCTGCTATATATA
ACAAAGTACCCTAGACTGGGTGGCTTATAACAATAGAAATTTGTTTCTCACAGTTCTAGA
```

Filled site:

```
AATTTATTGGACACCTACTTATATATATTTAAATACATTCACATATGTAAATGCTTAGAACTATGTCTGGTAC
ATGTGTGCTAAGTGTGTGCCAGGGTTGTTAGTATTATAACTATTTTCATCTTTATCTTTGTGCATGGCAAAACA
CTGACTATTATTTTCACATATGAGAAATGGAAAGGTAATAAAGTAAATTACCCTTGCCAGGGTCACAGGTCTTGT
ACCAGGGCTCAATACCAAATCTGTCTGACTTTAAAGCTATATTTTCATGAGAGAAAACCCCTAAACTTCCCTCA
GTAGCTCTTGCAAAGGCACTTAAATTAGTCCAAGCCTTACTTTGCCCATCTGTAAAATAAAAGACCATAACGT
CTATGAAAATGAAAGGAACTAAAAAATATAAATTTTTGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTGAGGATCGAGACCATCCTGGCTAACACGGTGAAACC
CCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCG
GGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEO
assette] AAAAAAAAAAAAACTAAAAAAAAAAATACAAAAAAAAAATTTAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAATATAAATTTTTAGAGAACTATGTGTTAGTTTGTTCAGGCTGCTATATATAACAA
AGTACCCTAGACTGGGTGGCTTATAACAATAGAAATTTGTTTCTCACAGTTCTAGA
```

MIRs at the 5'; LTR at the 3'.

CLONE 18

[U22]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 7

5' position: 80,207,048

Strand: minus

DR: AAGAATATTCTTT

ENDOsites: TCTT/AA

Empty site:

TGCAACAAATATTAGTGAGCAGAACATTAATGTCTTATAAAGGAACTTCTTCATGGACACTATTAATCATAT
TAATTGTCCTGCCTTTGAAATTTGGGTTCTTCTACACTAAATAAAATTTGGATAACTTAATTCAGGAGAAAC
CACTAAAAATGGCTAGAAGAATAGAAGTATTAGAAAAGTAAACACACAGTTGGAAAAATTAATATGTATGTA
GTACATAAGTGGATATGGTTGGGTGGTGACCATCACTGAAGGTATGGTTTTGTTAATTTAAAATACAAATTGA
TTTCACTTGTATAAACATTACTGAATAATATAAGGCATTAAGCATGGTTTTAGAATTATCTT **↑AAGAATATT**
CTTT ↓AATACAAAGTAAATCATCTGCCTTAACAAATCATCATGATTCAACAGGCAATTAGAAAGATTGGAAG
ACCATTCTAGGCAGAGGACACTACAAGGGTTAA

Filled site:

TGCAACAAATATTAGTGAGCAGAACATTAATGTCTTATAAAGGAACTTCTTCATGGACACTATTAATCATAT
TAATTGTCCTGCCTTTGAAATTTGGGTTCTTCTACACTAAATAAAATTTGGATAACTTAATTCAGGAGAAAC
CACTAAAAATGGCTAGAAGAATAGAAGTATTAGAAAAGTAAACACACAGTTGGAAAAATTAATATGTATGTA
GTACATAAGTGGATATGGTTGGGTGGTGACCATCACTGAAGGTATGGTTTTGTTAATTTAAAATACAAATTGA
TTTCACTTGTATAAACATTACTGAATAATATAAGGCATTAAGCATGGTTTTAGAATTATCTT AAGAATATT
TTT GCCGGGCGGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTC
AGGAGATCGAGACCATCTGGCTAACACGGTGAAACCCGCTCTACTAAAAAAAAAATACAAAAATTAGCC
GGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGA
GGCGGAGCTTGCAGTGAGCC... [NEOcassette] AAAAAAAAAAAAAAAAACTAAAAAAAAAAAAAAAAATACAAA
AAAAAAAAAAAAAAAAGAATATTCTTTAATACAAAGTAAATCATCTGCCTTAACAAATCATCATGATTCAACAG
GCAATTAGAAAGATTGGAAGACCATTCTAGGCAGAGGACACTACAAGGGTTAA

No repetitive sequences in the immediate proximity.

CLONE 20

[Q34]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 13

5' position: 110,579,080

Strand: plus

DR: AAAGACTGAAGAAATA

ENDOsites: CTTT/GA

Empty site:

```
TATTTCTAGCAAAAGTCTACCTCATATTAATCAAAAATAAATTCTCCTCCAGATTAAGATGACTGGCCTACA
GAAATAGGAAAGCACACCTCGGTGAGGCAGTTAGAGAGTGGATGATTGACTGATAAACACCAGAACTTGGC
TAAGCATTGTGGATGTATTAATCCAAAAATTTTAGGGACCTTAAAATTTAAAACAAACAGAATGGTGTACAAA
TATTGACTCTAGTTAGTGAGTTTTTTTTTCCACGGGAATGTGAGTTAGCAATTCTGAAACTAGTTTTTGTTC
C↑AAAGACTGAAGAAATA↓AAGAAATATGTATGTAAGTAATGACAGCCAGGACTCTGTCTAGAGAAATGAGTT
GCCAACGAAAAAAGGGGAATGCTCAAATGAACCCCATCAAGTATCA
```

Filled site:

```
TATTTCTAGCAAAAGTCTACCTCATATTAATCAAAAATAAATTCTCCTCCAGATTAAGATGACTGGCCTACA
GAAATAGGAAAGCACACCTCGGTGAGGCAGTTAGAGAGTGGATGATTGACTGATAAACACCAGAACTTGGC
TAAGCATTGTGGATGTATTAATCCAAAAATTTTAGGGACCTTAAAATTTAAAACAAACAGAATGGTGTACAAA
TATTGACTCTAGTTAGTGAGTTTTTTTTTCCACGGGAATGTGAGTTAGCAATTCTGAAACTAGTTTTTGTTC
CAAAGACTGAAGAAATAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCG
GCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAA
AATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGA
ATGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCC... [NEOcassette] AAAAAAAAAAAAAAAAAA
CATTACAAAAAAAAAAAAAAAAAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG
ACTGAAGAAATAAAGAAATATGTATGTAAGTAATGACAGCCAGGACTCTGTCTAGAGAAATGAGTTGCCAACG
AAAAAAGGGGAATGCTCAAATGAACCCCATCAAGTATCA
```

LINE1 flanks insertion site.

CLONE 22

[Q39a]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 20,053,995

Strand: plus

DR: AGAAATAAGTTTTTAT

ENDOsites: TTCT/AC

Empty site:

```
TATTCTTGACTTTAGAACTTTTGTGTATATTTTGAATCAGCTTGTCAAACCTATAAAATGACTATTGAAA
TTTTGTTTGCAATTGAATTGAATCCATTTCAGCTGGGAAGAATTGACATCGCTATAATAGGGAGCTATCAACC
CCTGAACATGTTTTTAATTTCCATTTATTAGGTCCTTTTTACTGTTTCTCAATTAGTTGCATAAAATTTCTCT
ATAGAAGTCTTATATATATGCTCATTGATTTATTTTTAGGTAATTTTTATTTTTGATACTATTGTAATAGT
ACCACTTTTAATTTTATTTTATAAATTGTTTGTAGAAATAAGTTTTTATAGGTTTTTATTTTATTTTATTTT
AATGCTAAGTTTTTCTCATTAAAAAACTATTTGTAGGTTTTTTTTGGATTTTATATAAATGCAGTTATTTCTC
TGTAAT
```

Filled site:

```
TATTCTTGACTTTAGAACTTTTGTGTATATTTTGAATCAGCTTGTCAAACCTATAAAATGACTATTGAAA
TTTTGTTTGCAATTGAATTGAATCCATTTCAGCTGGGAAGAATTGACATCGCTATAATAGGGAGCTATCAACC
CCTGAACATGTTTTTAATTTCCATTTATTAGGTCCTTTTTACTGTTTCTCAATTAGTTGCATAAAATTTCTCT
ATAGAAGTCTTATATATATGCTCATTGATTTATTTTTAGGTAATTTTTATTTTTGATACTATTGTAATAGT
ACCACTTTTAATTTTATTTTATAAATTGTTTGTAGAAATAAGTTTTTATGGCCGGGCGCGGTGGCTCACGCCT
GTAATCCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAAC
ACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGT
CCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGAT
CCCGCCACTGCACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
TTTTATTTGATTTTTGTATCCAGGAACAATGCTAAGTTTTTCTCATTAAAAAACTATTTGTAGGTTTTTTTTG
GATTTTATATAAATGCAGTTATTTCTCTGTAA
```

LINE1 flanks insertion site.

CLONE 23

[JK25, L2, N14, S14]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 95,622,168

Strand: plus

DR: AAAAGAATCAATAG

ENDOsites: TTTT/AA

Empty site:

```
ATGAAATTCTCTATGTTAACAGTAGTAACAGTTCATTATCTCTCATTCTAAGATGCTTTAAATACTCTAGTT
GCCATAAAGGTAGCTGACCTATAGAAATATTTCCCAAGCCTATTAGCGGAGACAAGATATTACTTTTCTTGT
CAATGAAAGAAGAGGTCGATGGATGGAAGCTGCAACAATTATTTTAGAGAAATCTTCCTTCACTTGCTCCC
TGGACTCAAAGAACAAATGTT↑AAAAGAATCAATAG↓AATGTTTTATAAGAGAATGAGCCGTTAAAGGGAGG
GGCAAGATATGGACCGTGTGTGACTTGGAAACACCATGCTTTGCACCAGTAACCAATATTGTTA
```

Filled site:

```
ATGAAATTCTCTATGTTAACAGTAGTAACAGTTCATTATCTCTCATTCTAAGATGCTTTAAATACTCTAGTT
GCCATAAAGGTAGCTGACCTATAGAAATATTTCCCAAGCCTATTAGCGGAGACAAGATATTACTTTTCTTGT
CAATGAAAGAAGAGGTCGATGGATGGAAGCTGCAACAATTATTTTAGAGAAATCTTCCTTCACTTGCTCCC
TGGACTCAAAGAACAAATGTTAAAAGAATCAATAGTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCA
CTTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCC
CGTCTCTACTAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGG
GAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCAC
TCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAGAATCAATAGAAATGTTTTATAAGAGAATGAGCCGTTAAAGGGAGGGGCAAGATATGGACCGTGT
GTGACTTGGAAACACCATGCTTTGCACCAGTAACCAATATTGTTA
```

An extra T added immediately 5' of Alu.

No repetitive sequences in the immediate proximity.

CLONE 25

[Q1]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 1,485,432

Strand: minus

DR: AAGAAAGACATATT

ENDOsites: TCTT/AA

Empty site:

```
GTGGGGAAGACCCGGTGATGTAAAGCCCCTGTGCCCTGCGCACGACAGTCAAGTGGCACGTGGTGGCCATTA
TTGTCACTGCTCTATTTTACAGAATTCTGAAAAGTTATACTAGTCGGGGATAACCCAGAACGGGAGGTAACA
TGTGGAAAATCACAGAACTCGAAGGCGAGTGAGATGGGATGTAGCTTGGGAGTTGACATTTTCTAATGTTG
AGGACTTCAGCCAGACGGGCATTTAAATGTTCTTCAGTGACGAAAATGTAAGATTT ↑ AAGAAAGACATATT ↓
AGAATTTAGAATTATTTTTTAAAAATTCTATATGAGAGTCATATCATTAAAAAGAACAGGTGGAAAAAGAA
AGGATAAAAAGTACCTCTACCTCTTTTT
```

Filled site:

```
GTGGGGAAGACCCGGTGATGTAAAGCCCCTGTGCCCTGCGCACGACAGTCAAGTGGCACGTGGTGGCCATTA
TTGTCACTGCTCTATTTTACAGAATTCTGAAAAGTTATACTAGTCGGGGATAACCCAGAACGGGAGGTAACA
TGTGGAAAATCACAGAACTCGAAGGCGAGTGAGATGGGATGTAGCTTGGGAGTTGACATTTTCTAATGTTG
AGGACTTCAGCCAGACGGGCATTTAAATGTTCTTCAGTGACGAAAATGTAAGATTTAAGAAAGACATATTGG
CCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGA
GATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAATTAGCCGGGC
GTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCG
GAGCTTGCAGTGAGCCGAGATCCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAATTACAAAAAA
AAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAGAAAGACATATTAGAATTTAGAATTATTTTTTAAAAATTC
TATATGAGAGTCATATCATTAAAAAGAACAGGTGGAAAAAGAAAGGATAAAAAGTACCTCTACCTCTTTTT
```

No repetitive sequences in the immediate proximity.

CLONE 26

[Q44]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 69,896,024

Strand: minus

DR: AAAGAAAAGGACC

ENDOsites: CTTT/AA

Empty site:

```
CCTCCATCCATGTTAGGGAATGCTTTTCATAGAAATGCCCTGACCGGTGGCATGTTTTTTAGAACGCCAAATCC
TCATGACACTTACAGAATGGCAGTAGGTGCCAGGCATGATTCATGGCTCAATAGAAATGAGTCAATGATTGG
GATAAATAGGGCAGGTCCAGATGGTT↑AAAGAAAAGGACC↓CACCTTTCACGCACAAGGATGGCTTGCCAGA
TCTGCTCATTGGCTAGCTAGCAAGCCTGGGAAGAAAGAAGGAAGACACTGAAGAGACACATTTTTTCAG
```

Filled site:

```
CCTCCATCCATGTTAGGGAATGCTTTTCATAGAAATGCCCTGACCGGTGGCATGTTTTTTAGAACGCCAAATCC
TCATGACACTTACAGAATGGCAGTAGGTGCCAGGCATGATTCATGGCTCAATAGAAATGAGTCAATGATTGG
GATAAATAGGGCAGGTCCAGATGGTTAAAGAAAAGGACCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCA
GCACCTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAA
CCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACT
CGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTG
CACTCCAGCCT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAGGACCACCTTTCACGCACAAGGATG
GCTTGCCAGATCTGCTCATTGGCTAGCTAGCAAGCCTGGGAAGAAAGAAGGAAGACACTGAAGAGACACAT
TTTTTCAG
```

No repetitive sequences in the immediate proximity.

CLONE 27

[P29]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 17,024,668

Strand: minus

DR: AAAAGTTAACCT

ENDOfsite: TTTT/AT

Empty site:

```
CTAAGTTAATTTTCATAAATTTTCATAAAGTAAGCCCCTTGGCACCCAGATCAAGAAATGGAGCATGACAGC
CCCCAGAACCTCCATTTGTGCCCTGCTAGTTTTTATCCCCTCCCAGAAAAAAGTCCTATCCTGACTCCTA
ACACCACAGGTTAATTTTCATTTTTTTAATAAATTGAATTATACAGTATTTTTTCTTTTGGGTCTGGCTTCTT
TTACTCAACATTATGATTAT↑AAAAGTTAACCT↓GCCATGTGTAAAGAATTAGCCATGTTATTGTTAGTGT
GTATAGTATTGTAATATATGACTAGACTACAGTTCATTCTACTGTTGAGGTAAATTTGAGTA
```

Filled site:

```
CTAAGTTAATTTTCATAAATTTTCATAAAGTAAGCCCCTTGGCACCCAGATCAAGAAATGGAGCATGACAGC
CCCCAGAACCTCCATTTGTGCCCTGCTAGTTTTTATCCCCTCCCAGAAAAAAGTCCTATCCTGACTCCTA
ACACCACAGGTTAATTTTCATTTTTTTAATAAATTGAATTATACAGTATTTTTTCTTTTGGGTCTGGCTTCTT
TTACTCAACATTATGATTATAAAAAGTTAACCTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTT
GGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTC
TCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGG
CTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCA... [NEOcass
ette]AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAGAAAAAAAAAAAAAAAAAAAAAAAAAACACACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAGTTAACCTGCCATGTGTAAAGAATTAGCCATGTTATTGTTA
GTGTTGTATAGTATTGTAATATATGACTAGACTACAGTTCATTCTACTGTTGAGGTAAATTTGAGTA
```

LINE1 flanks insertion site.

CLONE 28

[R4]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 69,500,842

Strand: plus

DR: AAGAATTTATT

ENDOfsite: TCTT/AC

Empty site:

```
ATGCCAGTCTTCAAATGATTGTTTTTCTTGAAATAGCTAAACTGTTGGGGAAAATTAACACTGAGATTGA
AGTTTAGTGACTGTGTTAATAAAACAAGGGAAATAAACCGTTTTTATAATTACCTTTGAAACATACTGATAG
CCATCTAACATTACTAACATATCAGATTTCTGTTGAGAGATTGTTTCATTAGGGCTCGGCTATTTCACTGTCA
CAGGAAGTGGGATTACTAACAGGAAAGGATAACCCCATTTCTTGTTACCAAAGTTTGAATTTAATGTTAAT
CTTTGATACTAGT↑AAGAATTTATT↓ATCACAGCACTGTCCCTGATGCTGAATAGTGGGTAGGTGCTTGACA
AATCCTGGTTGATTTCGTGAAAGCCTGAGGTAGAAGACTGTCCAATTATGTAAAT
```

Filled site:

```
ATGCCAGTCTTCAAATGATTGTTTTTCTTGAAATAGCTAAACTGTTGGGGAAAATTAACACTGAGATTGA
AGTTTAGTGACTGTGTTAATAAAACAAGGGAAATAAACCGTTTTTATAATTACCTTTGAAACATACTGATAG
CCATCTAACATTACTAACATATCAGATTTCTGTTGAGAGATTGTTTCATTAGGGCTCGGCTATTTCACTGTCA
CAGGAAGTGGGATTACTAACAGGAAAGGATAACCCCATTTCTTGTTACCAAAGTTTGAATTTAATGTTAAT
CTTTGATACTAGTAAAGAATTTATTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCC
GAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAA
AAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAG
GCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACT... [NEOcassett
e] AAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAATTTATTATCACAGCACTGTCCCTGATGCT
GAATAGTGGGTAGGTGCTTGACAAATCCTGGTTGATTTCGTGAAAGCCTGAGGTAGAAGACTGTCCAATTATG
TAAAT
```

No repetitive sequences in the immediate proximity.

CLONE 29

[Q45]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 59,814,549

Strand: plus

DR: AAGAAAGATACTGCC

ENDOsites: TCTT/GA

Empty site:

```
AAGCAACCAGGAAAGAAGAGGATACTGAATTGTCAGCTTGACAAAATGGGACTCTATACAGTTTCCATTTGC
CTTTAGTTAGAACTACAAGAGTTTCATACACACACTCAAGGTAAACAGATGCGTGAACCTCCACAGCCTTTAC
CTGACCACTTGTGTATGGTATTTGTGGAAATGCCTGGTGTATTTTTTTTTTCTTC ↑ AAGAAAGATACTGCC ↓
TTTGAGGCTTCCAACTAGTCTTCATAATGTTGAAAGTTGCTAGGGGCTCATCAGGACACTAATGCACAACC
CAAGAACTATCATCAGATGACTAAATT
```

Filled site:

```
AAGCAACCAGGAAAGAAGAGGATACTGAATTGTCAGCTTGACAAAATGGGACTCTATACAGTTTCCATTTGC
CTTTAGTTAGAACTACAAGAGTTTCATACACACACTCAAGGTAAACAGATGCGTGAACCTCCACAGCCTTTAC
CTGACCACTTGTGTATGGTATTTGTGGAAATGCCTGGTGTATTTTTTTTTTCTTCAAGAAAGATACTGCCGG
CCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGA
GATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGC
GTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGGAGGCG
GAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcassette] AAAAAAAAAAAAAA
AAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAGAAAGATACTGCCTTTGAGGCTTCCAACTAGTCTTCATAATGTTGAA
AGTTGCTAGGGGCTCATCAGGACACTAATGCACAACCCAAGAACTATCATCAGATGACTAAATT
```

No repetitive sequences in the immediate proximity.

CLONE 30

[U13, U18, U25]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 9

5' position: 98430829

Strand: plus

DR: AAAAAATGCAATCCT

ENDOsites: TTTT/AA

Empty site:

```
ACTCGGACATGAAACACACTTAGCAAATTCATTTAATTGAGTAATGAACAGATATTGAGCATCCTCCGGCA
GTGAAATCTGAAATAATGGCATTGAGAAAACAAATGTATGAAAATGGACATTCCCCACTGAACACTGCAATG
ATATCATTAAATGAAATTGATATATTGGGTGTTGCCAAGTCACTCAAGTGGCTGTTAATAAATACTAGAGCTT
TTACGAGAATACAACCTTCTTT↑AAAAAATGCAATCCT↓AAAATCAAGTCCCCAAATTTTAAACATAAATGTAG
TCGGAAGGTTTCTTTATGAATTAAGAAGTAAAGTGTTAAATAGTATAAAATATAACAAAAGGCAGA
```

Filled site:

```
ACTCGGACATGAAACACACTTAGCAAATTCATTTAATTGAGTAATGAACAGATATTGAGCATCCTCCGGCA
GTGAAATCTGAAATAATGGCATTGAGAAAACAAATGTATGAAAATGGACATTCCCCACTGAACACTGCAATG
ATATCATTAAATGAAATTGATATATTGGGTGTTGCCAAGTCACTCAAGTGGCTGTTAATAAATACTAGAGCTT
TTACGAGAATACAACCTTCTTTAAAAAATGCAATCCTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCA
CTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTCAAACCC
CGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGG
GAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCAC
TCCAGCCT... [NEOcassette] AAAAAAAAAACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCAATCCTAAAATCAAGTCCCCAAATTTT
AACATAAATGTAGTCGGAAGGTTTCTTTATGAATTAAGAAGTAAAGTGTTAAATAGTATAAAATATAACAAA
AGGCAGA
```

No repetitive sequences in the immediate proximity.

CLONE 31

[U14]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 15

5' position: 36,732,143

Strand: plus

DR: AAAATTTTATTTT

ENDOsites: TTTT/AT

Empty site:

TATGGTATTATTTCAAATAACCATTTTGTGACTGAATATTTTCACTTATTAAACCAATAATTATTAAAAGA
TCTGAGATTGCCAGGAGAATGAAGATCCTTCATCACATAATGTAAGCTAAGCAGTCAGTTATTAGAGTCAT
TTACAATATTAATAGCCCTGAGCAGAAGTACAAACCATAGGTCTGTATACTCTGCTGCCGAATTTGCCAGTT
ACAAACTGGGGTTCTATTGCTTGACTCCATCTTTGCCATATGTTCTGTTATTGGAAATTCAT **↑AAAATTTT**
ATTTT ↓ GCTATCTTTTATGAAGCATAGACCAAAGAGCTTAAAGATATTTTCATCAACCTAGAAAAAATGCAA
TACTGTGAGAATACGTAGACACATGTATGTGTGT

Filled site:

TATGGTATTATTTCAAATAACCATTTTGTGACTGAATATTTTCACTTATTAAACCAATAATTATTAAAAGA
TCTGAGATTGCCAGGAGAATGAAGATCCTTCATCACATAATGTAAGCTAAGCAGTCAGTTATTAGAGTCAT
TTACAATATTAATAGCCCTGAGCAGAAGTACAAACCATAGGTCTGTATACTCTGCTGCCGAATTTGCCAGTT
ACAAACTGGGGTTCTATTGCTTGACTCCATCTTTGCCATATGTTCTGTTATTGGAAATTCATAAAAATTTTA
TTTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGG
TCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAATTA
GCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCG
GGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACT... [NEOcassette] AAAAAAAAAAACTAAAA
AAAAAAAAATACAAAAAAAAAAAAAAAACAA
AAAAAAAAAAAAAAAAATTTTATTTTGTATCTTTTATGAAGCATAGACCAAAGAGCTTAAAGATATTTTCATCA
ACCTAGAAAAAATGCAATACTGTGAGAATACGTAGACACATGTATGTGTGT

No repetitive sequences in the immediate proximity.

CLONE 32

[R1, R2, R6]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 8

5' position: 141,765,251

Strand: plus

DR: AAGAGAAAATTAG

ENDOsites: TCTT/AA

Empty site:

```
GACCAGAACGTGTGCAAAGGGTTTTTTCTAAAACTAAAAAGTTACTAATTGGTAATTACTCAAAATAGATT
TTTAAAATCTTCGTAAAATACAGGCAATATTTAGGGAAAAGAGAAGTTTTTCATTGTTCAATGAAAATACCA
CCTTGTGGCCACTATGCCTAGACAAGGGATGCAAGATTAGGCTCTGAATTAATAACAGCTAGTAGACGTTTA
AAATATCTTAACAAATAAATGTAGAAAAAGCTATTCTAGGATGAATT ↑AAGAGAAAATTAG↓ ATTTAATAA
CGGATTTTAAGGCTGCGAATAATAATGAGAGAATGTGCCAGTGATCAGCAGGTGCTTGAAGGAAAGAAAAA
CAAGCCTGATAATCTTGCC
```

Filled site:

```
GACCAGAACGTGTGCAAAGGGTTTTTTCTAAAACTAAAAAGTTACTAATTGGTAATTACTCAAAATAGATT
TTTAAAATCTTCGTAAAATACAGGCAATATTTAGGGAAAAGAGAAGTTTTTCATTGTTCAATGAAAATACCA
CCTTGTGGCCACTATGCCTAGACAAGGGATGCAAGATTAGGCTCTGAATTAATAACAGCTAGTAGACGTTTA
AAATATCTTAACAAATAAATGTAGAAAAAGCTATTCTAGGATGAATTAAGAGAAAATTAGGGCCGGGCGCG
GTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGAC
CATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCG
GGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCA
GTGAGCCGAGATCCCGCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAGAAAATTAGA
TTTAATAACGGATTTTAAGGCTGCGAATAATAATGAGAGAATGTGCCAGTGATCAGCAGGTGCTTGAAGGAA
AGAAAAACAAGCCTGATAATCTTGCC
```

No repetitive sequences in the immediate proximity.

CLONE 33

[U7, U8]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 9

5' position: 124,049,036

Strand: minus

DR: AAAAAATACCTACTGTA

ENDOsites: TTTT/AA

Empty site:

```
TCTTGTTGAATCCTCCCCAAAACCCATGGCTGGCATTGTCTCCTTTTATAGACGGAGGAACAAAAGCTCAGA  
GAGGTTTCAGCCCAAGGTTACACCATTAGGAATTCAGGGCTGTCTGACTCTGAAGTCCGAAGTCTGACTCTCA  
CTTCTACACACCTTT↑AAAAAATACCTACTGTA↓CACAGTGGCATGAAGATCAGCTCTCATCAGACAGGTAA  
GGAGAATGATGGCCACAGTGGCTGTTCAATCACAATTGTCTCCTTTCTTTCTCTGACTTCC
```

Filled site:

```
TCTTGTTGAATCCTCCCCAAAACCCATGGCTGGCATTGTCTCCTTTTATAGACGGAGGAACAAAAGCTCAGA  
GAGGTTTCAGCCCAAGGTTACACCATTAGGAATTCAGGGCTGTCTGACTCTGAAGTCCGAAGTCTGACTCTCA  
CTTCTACACACCTTTAAAAAATACCTACTGTAGGCCGGGCGCGGTGGCTCAGCCTGTAATCCCAGCACTTT  
GGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTC  
TCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGG  
CTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCT... [NEOcassette] AAAAAAAAAACTAAA  
AAAAAAAAATACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AGACAGGTAAGGAGAATGATGGCCACAGTGGCTGTTCAATCACAATTGTCTCCTTTCTTTCTCTGACTTCC
```

MIR at the 5'.

CLONE 35

[Q2]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 129,888,976

Strand: minus

DR: AAAAATAAACCA

ENDOsites: TTTT/AT

Empty site:

```
CTGCTAGAACACAACCCAACATTCTTTAGAGGAAGACAAGAAAATACAGAATGTCTTTTCATGTATCATCCAC
AATGTCCAGTATAACAATAAAAAATTATAGACATGTGAAGAAGCAGGACAATATGACCCATAATCAAGAAAAA
AAAGCAGTAAAATCAAACCTACTAATGAGCCAGATGTTGGAATTAGTAGGCAAGGATTTTTTAAATGGCTATT
ATAAACATGCACAGGATTTTGGAAACATGAAAGATAGAATGAATCAGTGGATATGGAATCCCAGAAATGGGA
ATTAT↑AAAAATAAACCA↓AGTGAAAATTCTAGAACCAACATTGTAGTATCTGACATAAAAATACTTTAGAC
GAAATTAACAGCCGATTAAATGCTGTAGACAAAAGGTTAGCAAATGT
```

Filled site:

```
CTGCTAGAACACAACCCAACATTCTTTAGAGGAAGACAAGAAAATACAGAATGTCTTTTCATGTATCATCCAC
AATGTCCAGTATAACAATAAAAAATTATAGACATGTGAAGAAGCAGGACAATATGACCCATAATCAAGAAAAA
AAAGCAGTAAAATCAAACCTACTAATGAGCCAGATGTTGGAATTAGTAGGCAAGGATTTTTTAAATGGCTATT
ATAAACATGCACAGGATTTTGGAAACATGAAAGATAGAATGAATCAGTGGATATGGAATCCCAGAAATGGGA
ATTATAAAAAATAAACCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAA
ATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAA
TGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCA.. [NEOcassette
] AAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGGAAAAAAAA
AAAAAAAAAAAAAAAAATAAACCAAGTGAAAATTCTAGAACCAACATTGTAGTATCTGACATAAAAATACTTT
AGACGAAATTAACAGCCGATTAAATGCTGTAGACAAAAGGTTAGCAAATGT
```

LINE1 flanks insertion site.

CLONE 36

[N34, N50]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 68,059,409

Strand: plus

DR: AAAGTATTTTATT

ENDOsites: CTTT/GA

Empty site:

```
ATCAAAACAAACTTAGGATTAGAAGGATCATAAGTATAACCCAATATGGCATTTCCTGTACTCTCATAGAGA
TATCATTAGGTAAAAAGATTTATGTTGCATCTAAGAACACAAAGCAGATGACAGGTGCTGCCAATAACTGAT
ATGAGCATATTCAGTTAGCAAGCCAGGACTCAGAAACAGCTTTTCCAGTTATCCAGTCTCTGTTCCACAGAT
AAATAGAATAATAGATTAATTCTATCAATTTTTTTCCACACCCCGAGTGATTTGTGGAGAAAATTAAGCAT
TTC↑AAAGTATTTTATT↓AAATTCAAATATTATCAGGAAAGTTAAAAGTTTGTGTATCAATACTAATATGT
AAGATAATTTTCTTATACTATAAAAAAGATACATATTGGAAAGGTA
```

Filled site:

```
ATCAAAACAAACTTAGGATTAGAAGGATCATAAGTATAACCCAATATGGCATTTCCTGTACTCTCATAGAGA
TATCATTAGGTAAAAAGATTTATGTTGCATCTAAGAACACAAAGCAGATGACAGGTGCTGCCAATAACTGAT
ATGAGCATATTCAGTTAGCAAGCCAGGACTCAGAAACAGCTTTTCCAGTTATCCAGTCTCTGTTCCACAGAT
AAATAGAATAATAGATTAATTCTATCAATTTTTTTCCACACCCCGAGTGATTTGTGGAGAAAATTAAGCAT
TTCAAAGTATTTTATTGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGG
CGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAAAAT
ACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATG
GCGTGAACCCGGGAGGCGGAGCT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAACATTACA
AAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGTATTTTA
TTAAATTCAAATATTATCAGGAAAGTTAAAAGTTTGTGTATCAATACTAATATGTAAGATAATTTTCTTAT
ACTATAAAAAAGATACATATTGGAAAGGTA
```

No repetitive sequences in the immediate proximity.

CLONE 38

[N28]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 151,379,841

Strand: minus

DR: AAAACAAGAAAGAGC

ENDOsites: TTTT/AT

Empty site:

```
ACTTATGGTCTATATGCTCAGTCAGCTCTTCAGTGTCTCATTCTTAAAAATGGAGGTGCAGCCAAGTATTAG
CAAACATTTAAAGACAACCTCTAATGTGAAAGATGACAAAGACCAAAGCAAATAGAAAATCAAACAAAACC
AGAAGAAACAGAGGCAATTTATGAAACAGAAGTGTTTTTTTAAAAAATACTAGAATAAATATTTTCA
GATAAAGGGAAACTATTGCATTAATAGAACAAGAAAATTATGCTATGGAAAGTGAATAATCAT↑AAAACAAG
AAAGAGC↓AGTATAAAAATTAATAGAAGAGTTATAAATGCAGATATCTTCTAAAAGGAATATCAACATGATG
TGGAGAAAACAGCCTGGAAAGATAAAAATTAGACCAG
```

Filled site:

```
ACTTATGGTCTATATGCTCAGTCAGCTCTTCAGTGTCTCATTCTTAAAAATGGAGGTGCAGCCAAGTATTAG
CAAACATTTAAAGACAACCTCTAATGTGAAAGATGACAAAGACCAAAGCAAATAGAAAATCAAACAAAACC
AGAAGAAACAGAGGCAATTTATGAAACAGAAGTGTTTTTTTAAAAAATACTAGAATAAATATTTTCA
GATAAAGGGAAACTATTGCATTAATAGAACAAGAAAATTATGCTATGGAAAGTGAATAATCATAAAACAAGA
AAGAGCTGGCCGGGCGGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAG
AGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAATAACAAAAAT
TAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACC
CGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAACAAGAAAGAGCAGTATAAAAATTAATAGAAGAGTTATAAATGCAGATATCTTCTAAAAG
GAATATCAACATGATGTGGAGAAAACAGCCTGGAAAGATAAAAATTAGACCAG
```

LINE1 flanks insertion site.

An extra T added immediately 5' of Alu.

CLONE 39

[N31, N37, N51]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 21,542,539

Strand: plus

DR: AAGATATATGGATTTA

ENDOsites: TCTT/AA

Empty site:

```
ATCCAAATAGATAAAGTTTCAGGCCATTCTTCGAAAGCATATTTCCCATAAACCACATCTAAAACCTAATTAT
TTTGAAATGTTAATTATCCCAATAAATGAAAGTTAAGTGGTTTATAATATCATTATATTCCTCCTACAAACG
TGTTTTAAGCAATAAGGAAAACAATGTACTATATGAGATTTTTTTCAAAAACAGAATGCACATTTTGAATTT
ACACAAACTTATACTGAGGAAAGTGTGACAAAATATTTTAAATAATTATTTTAATTTGTCATTCAAGTTTTTC
ATTTT↑AAGATATATGGATTTA↓GAATTTATTTTATTTTATTTTATTTTATAGCATTTCATCGGTACATTTTATGTAT
TTTTTTAACCTTTAAGTTTCAGGGTTACATGTGCAGGTTTGTATATAGGTA
```

Filled site:

```
ATCCAAATAGATAAAGTTTCAGGCCATTCTTCGAAAGCATATTTCCCATAAACCACATCTAAAACCTAATTAT
TTTGAAATGTTAATTATCCCAATAAATGAAAGTTAAGTGGTTTATAATATCATTATATTCCTCCTACAAACG
TGTTTTAAGCAATAAGGAAAACAATGTACTATATGAGATTTTTTTCAAAAACAGAATGCACATTTTGAATTT
ACACAAACTTATACTGAGGAAAGTGTGACAAAATATTTTAAATAATTATTTTAATTTGTCATTCAAGTTTTTC
ATTTTAAGATATATGGATTTAGGCCGGGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAG
GCGGGCGGATCACGAGGTGAGGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAA
AAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGG
GGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] AAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAGATATATGGATTTAGAATTTATTTTATTTTATTTTATTTTATAGCATTTCATCGGTACATTTTATGTATTTT
ACCTTTAAGTTTCAGGGTTACATGTGCAGGTTTGTATATAGGTA
```

LINE1 fragments both 5' and 3' of insertion site.

CLONE 42

[127]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 184,194,385

Strand: minus

DR: AAAAAAAAAA

ENDOsites: TTTT/GA

Empty site:

```
CGTCTCTACTAAAAATACAAAATTAGCTGGGCATGGTGGTGCATGCCTGTAATCCCAGCTACTCGGGAGGCT
GAGGCAGGAGAATCACTTGAACCTGGGAGGGAGAGGTTGTGGTTAGCCGAGATTATGCCATTGTACTCCAGC
CTGGGCAATAAGAAGAAAACCTCCGTCTCAAAGAAAATAATGATAATAAATTAATAAATAAATAACATC
GTTTAAAAATAGACAAAGAATGTGAAAAGACATTTCTC↑AAAAAAAAA↓GATATACTAATGGCCAATAAGG
CTGTGATGCTCACCATCATTAGTCATTAGGGAAATGTCAATCAAAGCCACAGTGAAAACACCACTTCACACC
CACAAGAA
```

Filled site:

```
CGTCTCTACTAAAAATACAAAATTAGCTGGGCATGGTGGTGCATGCCTGTAATCCCAGCTACTCGGGAGGCT
GAGGCAGGAGAATCACTTGAACCTGGGAGGGAGAGGTTGTGGTTAGCCGAGATTATGCCATTGTACTCCAGC
CTGGGCAATAAGAAGAAAACCTCCGTCTCAAAGAAAATAATGATAATAAATTAATAAATAAATAACATC
GTTTAAAAATAGACAAAGAATGTGAAAAGACATTTCTCAAAAAAAAAAGGCCGGGCGGGTGGCTCACGCCT
GTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCTGGCTAAC
ACGGTGAAACCCCGTCTCTACTAAAAAAAATAACAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAG
TCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA
TCCCGCCACTGCACTCC... [NEOcassette] AAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAA
AAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAT
ATACTAATGGCCAATAAGGCTGTGATGCTCACCATCATTAGTCATTAGGGAAATGTCAATCAAAGCCACAGT
GAAAACACCACTTCACACCCACAAGAA
```

Alu 5' and LINE1 flanks insertion site.

CLONE 44

[128]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 33,309,606

Strand: plus

DR: AAAACCATCCA

ENDOsites: TTTT/AA

Empty site:

```
CCCAACATAACTCGTTAACCATTAACTGTTCCCTCTAATATCTCTTCAGGGGCCAAGTCCAGGCTGCAAGCA
ATGTAAATCCGTTCTACTGGAAAGAGTTGTATACAACAGAATGAAAACCTGGCTCAAGGTCAAGAAAAAAGA
ACAGAAAACAAGGCTACAAAAGACAGAGTGATTACATTCATACATCATTTTTTGCAGTTCTTTTCTGACTTTC
CTCTCAAATTACAAAGAAGCATACTTTAAAACCATCCAAAAACCATCCAAGTCCATGGTTTCCTTTATTCTTTTATTAG
AATCCTAGCTCTACACATTCAGAACTATGACATGATTTTTAAATGCTACATGAATATATATATATGCA
```

Filled site:

```
CCCAACATAACTCGTTAACCATTAACTGTTCCCTCTAATATCTCTTCAGGGGCCAAGTCCAGGCTGCAAGCA
ATGTAAATCCGTTCTACTGGAAAGAGTTGTATACAACAGAATGAAAACCTGGCTCAAGGTCAAGAAAAAAGA
ACAGAAAACAAGGCTACAAAAGACAGAGTGATTACATTCATACATCATTTTTTGCAGTTCTTTTCTGACTTTC
CTCTCAAATTACAAAGAAGCATACTTTAAAACCATCCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCA
GCACCTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAA
CCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACT
CGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCAC... [
NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAACATTACAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACCATCCAAGTCCATGGTTTCCTTTATTCTTTTATTTA
GAATCCTAGCTCTACACATTCAGAACTATGACATGATTTTTAAATGCTACATGAATATATATATATGCA
```

No repetitive sequences in the immediate proximity.

CLONE 45

[18]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 21

5' position: 28,745,144

Strand: minus

DR: AAAATCTCAGTTTC

ENDOsites: TTTT/AA

Empty site:

```
TTCCAAAATTCAAATAGATAATGATGTCTCCTTGCTTAGAACCTTCAACAGCTTTCATTTTCGCTTATAA
TATACACCTCTTACAATGACCAGTCTCTACAGGATCTGGCCCTACCTGCCTGTCTGATTACACATTATAACCA
CTTTTACTTTTGCTCACTGCAGCCACATTGACCTTTTTCCAGGTTATTGAGTGTATCAGGGTGGCTTTGCAAT
GCTTGATTTCTCTTGTCATCTCCACACGGGTAATTCATGATACAATT↑AAAATCTCAGTTTC↓AACTTAAA
TCCCTCTTACAGCCAGCTTTATTTACATAGTTTGGAGGTGCCAATGATTACTTTTTGGTTAAATTACCCTC
TTTCATTTTTTATCATAATAT
```

Filled site:

```
TTCCAAAATTCAAATAGATAATGATGTCTCCTTGCTTAGAACCTTCAACAGCTTTCATTTTCGCTTATAA
TATACACCTCTTACAATGACCAGTCTCTACAGGATCTGGCCCTACCTGCCTGTCTGATTACACATTATAACCA
CTTTTACTTTTGCTCACTGCAGCCACATTGACCTTTTTCCAGGTTATTGAGTGTATCAGGGTGGCTTTGCAAT
GCTTGATTTCTCTTGTCATCTCCACACGGGTAATTCATGATACAATTAAAAATCTCAGTTTCGGCCGGGCGC
GGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCATCACGAGGTCAGGAGATCGAGA
CCATCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAATACAAAAATTAGCCGGGCGTGGTAG
CGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGGAGGCGGAGCTTG
CAGTGAGCCGAGATCCCGCCACTGCACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAACATTA
CAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACTCAGTTTCACTTAAAT
CCCTCTTACAGCCAGCTTTATTTACATAGTTTGGAGGTGCCAATGATTACTTTTTGGTTAAATTACCCTCT
TTTCATTTTTTATCATAATAT
```

LINE1 at the 5'.

CLONE 46

[17, 120]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 20

5' position: 8,779,579

Strand: plus

DR: GAAAATTAGATTCT

ENDOsites: TTTC/AA

Empty site:

```
GACACATAAATCAACAGATCAGCAACAATGCCTGAGTATTACACAATGACTGCTGACTCCCCATCAGCCCT
CCAATTCTCAGAAGAATCTCCATGGAACCCACAATAGCTGGAAACATACAGAAAGGGAACCTCTGGGAAATAT
AGTTTGGCTGAGACAGTTGGCACAATAAGAAGCATCACACTGTTAAGTAAAAATCAGAAAATGTTTTATTTC
AAAAATACTCTGTGTCTCTT↑GAAAATTAGATTCT↓AAGATTATAATAGAAACATGCAAAGAATTTCTAAA
GCTAAGAAGAAGCTGTCCCTTAGGGCTGCATGGTACTCCCTAGGCTGTTTCAAAGATTGCTATTG
```

Filled site:

```
GACACATAAATCAACAGATCAGCAACAATGCCTGAGTATTACACAATGACTGCTGACTCCCCATCAGCCCT
CCAATTCTCAGAAGAATCTCCATGGAACCCACAATAGCTGGAAACATACAGAAAGGGAACCTCTGGGAAATAT
AGTTTGGCTGAGACAGTTGGCACAATAAGAAGCATCACACTGTTAAGTAAAAATCAGAAAATGTTTTATTTC
AAAAATACTCTGTGTCTCTTGA AAAATTAGATTCT↓... [NEOcassette] AAAAAAAAAAAAAAAAAAAAA
CATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GAAAATTAGATTCTAAGA
TTATAATAGAAACATGCAAAGAATTTCTAAAGCTAAGAAGAAGCTGTCCCTTAGGGCTGCATGGTACTCCCT
AGGCTGTTTCAAAGATTGCTATTG
```

LTR at the 5'.

CLONE 47

[13]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 170,561,870

Strand: plus

DR: AAGAGATAATT

ENDOsites: TCTT/AA

Empty site:

```
TTTGTGTCAATTTAAAAAAAAATTTTAAAGGAAACACTAGAACTGAAAATTAGCATGCTTGAAATTAGGAGAC
TGATGGATAGAATTGACAGAACAGGCATAGCTGAAGAAAGAATTGGTGAATGAACACAAATTAGAAAAAAAA
ATCCAGAATGATGCAGAGAGACAAAATAATAAAAAATACAAAAGTTGAGACATAGATTTAGTAAAAGATCTAA
CAGAGGAAATTTATGTCCCAAGAGAGGAGAGAGAAAATGAAACATAAGCAaTAGTTT↑AAGAGATAATT↓AT
TGGCTGGGCGTGGTGGCTCATGCCTGTAATCTCAGCACTTTGGGAGGCCTAGGCAGGTGGATCACAAGGTCA
GGAGATCGAGACCATCCTGGCTAACA
```

Filled site:

```
TTTGTGTCAATTTAAAAAAAAATTTTAAAGGAAACACTAGAACTGAAAATTAGCATGCTTGAAATTAGGAGAC
TGATGGATAGAATTGACAGAACAGGCATAGCTGAAGAAAGAATTGGTGAATGAACACAAATTAGAAAAAAAA
ATCCAGAATGATGCAGAGAGACAAAATAATAAAAAATACAAAAGTTGAGACATAGATTTAGTAAAAGATCTAA
CAGAGGAAATTTATGTCCCAAGAGAGGAGAGAGAAAATGAAACATAAGCAaTAGTTTAAAGAGATAATTGGCC
GGGCGGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTGAGGAGA
TTCGAGACCATCCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGT
GGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGA
GCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACACACAAAAAAAAAAATTAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAGATAATTATTGGCTGGGCGTGGTGGCTCATGCCTGTAATCTCA
GCACCTTTGGGAGGCCTAGGCAGGTGGATCACAAGGTGAGGATCGAGACCATCCTGGCTAACA
```

LINE1 at the 5'; Alu at the 3'.

CLONE 48

[I5, I21, I22, L6]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 15,638,359

Strand: minus

DR: AGAAATGTAATTGTA

ENDOsites: TTCT/AT

Empty site:

```
ATACTTGTGGATTAAAGCTGTATAACCTGTTTTGTTTCCTTTTTCAAGTGATGCTGCTTAATGCTACAAAGT
GAGTATTGTTTTTCTGTGATGCCTTTGTAAGAGGAAGTTAATTCTGTGTTTCATTATTGTAGCTCCCCTGA
TGAAGTATGATTTGGGCCATGATAGTTTAAACCCTACTGGTTCTTCACAAGTTTAAACATCCCCATGTTACCTC
TAATACATGTTATTTTCAATTTTACATCTTGCAAGCAGGAAGGAATTGACTTCAGGCACTGGATTTTGTATTAT
↑ AGAAATGTAATTGTA ↓ ATTTCTTATTGCATATGCTCTTTAGCCTTTACTGGTAAAGTTTTTCTTTTTTATT
TCAGAAGCAGAAGTGTGCAAACTCCACAGGTATAACCCATCTT
```

Filled site:

```
ATACTTGTGGATTAAAGCTGTATAACCTGTTTTGTTTCCTTTTTCAAGTGATGCTGCTTAATGCTACAAAGT
GAGTATTGTTTTTCTGTGATGCCTTTGTAAGAGGAAGTTAATTCTGTGTTTCATTATTGTAGCTCCCCTGA
TGAAGTATGATTTGGGCCATGATAGTTTAAACCCTACTGGTTCTTCACAAGTTTAAACATCCCCATGTTACCTC
TAATACATGTTATTTTCAATTTTACATCTTGCAAGCAGGAAGGAATTGACTTCAGGCACTGGATTTTGTATTAT
AGAAATGTAATTGTAGGCCGGGCGGCTGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGC
GGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAAAATA
CAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGG
CGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcassett
e] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAATGTAATTG
TAATTTCTTATTGCATATGCTCTTTAGCCTTTACTGGTAAAGTTTTTCTTTTTTATTTCAGAAGCAGAAGTG
TCAGAACACTCCACAGGTATAACCCATCTT
```

No repetitive sequences in the immediate proximity.

CLONE 54

[K23, JK24]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 136,981,148

Strand: minus

DR: AAAAATTGTAGATT

ENDOsites: TTTT/AT

Empty site:

```
TAATTTTTGTGTCTAAAGTTATTATAGCATTTTTATTCTTGCGAAATATATATACTGTATGCATTTATACTTC
AACTGATAGAATTTTCAGCGTAAAAAAGGTAAGATTTTCCTTTTAAGTTATTTAAGAATCCATGTTGTAAAAA
GACAAAGAAGAAGGTTACATAACAATGTTTGTATTATGACCTTTTAATTTATGCATATACTGACATATAT ↑A
AAAATTGTAGATT ↓TATGTACATTAAAGTGACCATAGCAGTTATCCTTGGGTTTTCAAATTAAGGTTAATT
TTCACCTTTCTTCTGTGTACCTTTCTGGTTAGTCTGACTTACT
```

Filled site:

```
TAATTTTTGTGTCTAAAGTTATTATAGCATTTTTATTCTTGCGAAATATATATACTGTATGCATTTATACTTC
AACTGATAGAATTTTCAGCGTAAAAAAGGTAAGATTTTCCTTTTAAGTTATTTAAGAATCCATGTTGTAAAAA
GACAAAGAAGAAGGTTACATAACAATGTTTGTATTATGACCTTTTAATTTATGCATATACTGACATATATAA
AAATTGTAGATTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGA
TCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACA
AAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCG
TGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] AAAA
AAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTGTAGATTTATGT
ACATTAAAGTGACCATAGCAGTTATCCTTGGGTTTTCAAATTAAGGTTAATTTTCACTTTCTTCTGTGTAC
CTTTCTGGTTAGTCTGACTTACT
```

No repetitive sequences in the immediate proximity.

CLONE 55

[K33]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 136,558,667

Strand: plus

DR: AAAAATTA AAAATGTG

ENDOsites: TTTT/AA

Empty site:

```
CTCCCAAGTTGATAAGCCCACCTCACACAAAGAACATGCGATCAGCTTTTCCTTGCCTCATTTTAAATAAGA
ATCACCAGATGCTTACCCAAGGCTACAAAACCTAAAGATAGAGATCAAAGCTAAAAGGAAAAAAGAACTCAC
AAAAAATACAGTAATTCAAGAACAGAGGAACTTAAAACAAACCTACACTTTTAATACTGTCAGTGGGATAA
GACCAACAAAACCAAAAAGATTTTAACAAGAAGCATTGGAAGAAAAAGAAACAGCTCTT↑AAAAATTA
TTGTTG↓GGCCAGGTGTGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCAGATCACAAG
GTCAGGAGTTTCATGACCAGCCTGGCCAACATGG
```

Filled site:

```
CTCCCAAGTTGATAAGCCCACCTCACACAAAGAACATGCGATCAGCTTTTCCTTGCCTCATTTTAAATAAGA
ATCACCAGATGCTTACCCAAGGCTACAAAACCTAAAGATAGAGATCAAAGCTAAAAGGAAAAAAGAACTCAC
AAAAAATACAGTAATTCAAGAACAGAGGAACTTAAAACAAACCTACACTTTTAATACTGTCAGTGGGATAA
GACCAACAAAACCAAAAAGATTTTAACAAGAAGCATTGGAAGAAAAAGAAACAGCTCTTAAAAATTA
GTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTCGGGAGGCCGAGGCCGGGCGGATCACGAGGT
CAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAATTAGC
CGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGG
AGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCAC... [NEOcassette] AAAAAAAAAAAAAAAAAACAT
TACAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAATTA
AAAAATGTGGCCAGGT
GTGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCAGATCACAAGGTCAGGAGTTTCAT
GACCAGCCTGGCCAACATGG
```

LINE1 at the 5'; Alu at the 3'.

CLONE 56

[K3, K20]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 234,312,608

Strand: minus

DR: AAAATTTAATGTGTG

ENDOsites: TTTT/AC

Empty site:

```
AAAAACGATCATTACAGAGACTCATGATATGGGGAATCTTATGATAAAACAGCAAATAAAGCCAAAATACA
AAATTATACATGTATATAACACATGTAAATTATACATGTATATAACACATGTAAACACAAAATTATACATGT
ATATAACACATGTAAAATGTAATTTTGTAAACACAAAACACAAAATTTAACTTTGTAACACAAAACACAAAAT
TATACATGTATATAACACATGT↑AAAATTTAATGTGTG↓CCTATTAATAAGTCTGAAGGGAGGAAGGGCGCA
GTGGCTCACGCCTGTAATCCCAGCACTTTGGGAATCCAAGGTGGGCGGATCACGAGGTCAGGAGTTC
```

Filled site:

```
AAAAACGATCATTACAGAGACTCATGATATGGGGAATCTTATGATAAAACAGCAAATAAAGCCAAAATACA
AAATTATACATGTATATAACACATGTAAATTATACATGTATATAACACATGTAAACACAAAATTATACATGT
ATATAACACATGTAAAATGTAATTTTGTAAACACAAAACACAAAATTTAACTTTGTAACACAAAACACAAAAT
TATACATGTATATAACACATGTAAATTTAATGTGTGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACC
CCGTCTCTACTAAAAAAAATACAAAAATTAGCCGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC
AC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTTAATGTGTGC
CTATTAATAAGTCTGAAGGGAGGAAGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAATCCAAG
GTGGGCGGATCACGAGGTCAGGAGTTC
```

Alu at the 3'.

CLONE 57

[JK27]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 41,408,564; 3' position: 41,507,429

Strand: minus

DR: none

ENDOfsite: unknown

Empty site:

```
AGAACTAGAAATAAATGTTTGTCTACAACAAGCCATTGAAGTACTGGGGTTGTTTTTTTCTGTAGGAAAGGA
TGAAAACACACCCTATGCTAAATGGGATAGGACAGTGATGAATAGACCTTGGTATGCTCATGTATGGTACAC
AATAGACAGCAATCAAGATGAATGAACTGCAGGGACATGCCTCAGATATGAATTAATCTTGCCAATCTAATA
GTAAGTGAGAAAAGTAGATCTCAAAAGATTATAGGCTGGGCACAGTGGCTCACGCCTGTAATCCCAGCACTT
TGGGAGGC↓TGAGGTGGGCGGATCACAAGGTCAGGAGCTCGAGATCAGCCTGGACAACATAGTGAAACCCCG
T
```

Filled site:

```
AGAACTAGAAATAAATGTTTGTCTACAACAAGCCATTGAAGTACTGGGGTTGTTTTTTTCTGTAGGAAAGGA
TGAAAACACACCCTATGCTAAATGGGATAGGACAGTGATGAATAGACCTTGGTATGCTCATGTATGGTACAC
AATAGACAGCAATCAAGATGAATGAACTGCAGGGACATGCCTCAGATATGAATTAATCTTGCCAATCTAATA
GTAAGTGAGAAAAGTAGATCTCAAAAGATTATAGGCTGGGCACAGTGGCTCACGCCTGTAATCCCAGCACTT
TGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGT
CTCTACTAAAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGA
GGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTC
CAGC...[NEOcassette] [NoAtail]AACAGTATTAAGCAGGAGATTGTATTGATTTCACTGGTC
CCAGTGACTATTAAGTTTAGCTGTAATTGAAATCTACCCAGCATTAACTCTGAGTCTGCTGTTTT
GGGATTCTCAGGTTCTCTCTGTTAGAGGAAGTGGTTCATTGCCCATGACACTGGTTCCTTGTGCC
TTTCTTTCCAGTTGTCATCCTGGTCTTCTG
```

LINE1 5'; Alu flanking insertion site.

Inserted by recombination with a pre-existing truncated Alu: missing between 10-47 bp of 5' Alu sequence.

Pre-insertion site sequence is identical to the Alu rescue vector across this range, making the ENDO cleavage site uncertain.

Post-insertion genomic flanking site map to locations of chr. 1 sequence in the human reference genome that are separated by 98,865 bases (detailed analysis shown in supplemental Figure S1).

CLONE 58

[K21, K32]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 109,491,736

Strand: plus

DR: AAAAGTTTAATATC

ENDOsites: TTTT/AT

Empty site:

```
AAGTGAAGCAATTTTTTTTTTCTTTTTCTTTTTCTTGTGGCTTCCTCAAATCATGGGAGTGAAGCAAATTTTA
TCCAAGCGCACCTTCTCAACCACTCAGGTGAGACAGTATTCGTACTTAATAAGAATCACAAGCAGGTGGGTA
TAGATCTTATTGGGCTATATCTGGATCTCAGTGAACAACTCTCCCAGTCTCTCAAGCTGGGACTCATTAC
TCTAGCTCTTCCCTATCCCTTATCCCCCTACTTCCCTAAGCCATCAACATTTGCCTATTCTACCTCAT ↑AA
AAAGTTTAATATC ↓TGCCTCTTATCTTCAACCCATCACTGCCTCATTTTCAGACCTTCAGCATTGCTGGACCTC
TGCAGCCTCCACTGATCTCACTGACACCCCCCTTCTCCATT
```

Filled site:

```
AAGTGAAGCAATTTTTTTTTTCTTTTTCTTTTTCTTGTGGCTTCCTCAAATCATGGGAGTGAAGCAAATTTTA
TCCAAGCGCACCTTCTCAACCACTCAGGTGAGACAGTATTCGTACTTAATAAGAATCACAAGCAGGTGGGTA
TAGATCTTATTGGGCTATATCTGGATCTCAGTGAACAACTCTCCCAGTCTCTCAAGCTGGGACTCATTAC
TCTAGCTCTTCCCTATCCCTTATCCCCCTACTTCCCTAAGCCATCAACATTTGCCTATTCTACCTCATAAA
AGTTTAATATC GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGAT
CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAATACAAA
AAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTG
AACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcassette] AA
AAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAGTTTAATATCTGCCTCTTATCTTCAACCCATCACTGCCTCATTTTCAGACCTT
CAGCATTGCTGGACCTCTGCAGCCTCCACTGATCTCACTGACACCCCCCTTCTCCATT
```

No repetitive sequences in the immediate proximity.

CLONE 59

[K30]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 121,674,454

Strand: minus

DR: AATAGTATGATTTA

ENDOsites: TATT/AT

Empty site:

```
AGCTATAAAATAAAAAATTTTAGAGAAAACACATAATAATAATATTCTTCCCGGTATAATAACTGTAGCCT
TCCACTTCAGTTCTGCAGCACGTAAAAGCTATCCTCTGTGGTCCCCTTAAGAAAATACTCTTTTTGTCTTTG
TGGTGAAGAGAGGGGAGCTTCTCCACTTATTTAAAGCAAATCTATAGCAGGTTTCTCACTCTAGTTTGTAGTAT
CATATTCATTCATATTATATGAATATTAGGAATTGGAGTACTTCCTAGATATAAAAGTACTTCATAAACCAT
AAAGGATTAGACAGATATTCCTGTTTAT↑AATAGTATGATTTA↓AATGTACAATATCCAAAATATTTACAAA
TGAGTATTATGAAAGAGGTTTAAATTAGCTTGAGATTAGGAGGTTATTTTACATGTGAGCAGTTGTCACAGA
```

Filled site:

```
AGCTATAAAATAAAAAATTTTAGAGAAAACACATAATAATAATATTCTTCCCGGTATAATAACTGTAGCCT
TCCACTTCAGTTCTGCAGCACGTAAAAGCTATCCTCTGTGGTCCCCTTAAGAAAATACTCTTTTTGTCTTTG
TGGTGAAGAGAGGGGAGCTTCTCCACTTATTTAAAGCAAATCTATAGCAGGTTTCTCACTCTAGTTTGTAGTAT
CATATTCATTCATATTATATGAATATTAGGAATTGGAGTACTTCCTAGATATAAAAGTACTTCATAAACCAT
AAAGGATTAGACAGATATTCCTGTTTATAATAGTATGATTTAGGCCGGGCGCGGTGGCTCACGCCTGTAATC
CCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTG
AAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCT
ACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCGCCA
CTGCACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAATAGTATGATTTAAATGTACAATATCCAAAATATTTACAAATGAGTATTATGAAAGA
GTTTAAATTAGCTTGAGATTAGGAGGTTATTTTACATGTGAGCAGTTGTCACAGA
```

No repetitive sequences in the immediate proximity.

CLONE 60

[JK6, K45]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 228,108,922

Strand: plus

DR: AACAAATGAAATA

ENDOsites: TGTT/AA

Empty site:

```
GTAGTTGTGTCATTCATTTTTATCAGACCTCAGCAGCTGTGAGGCTAATTAGGACTTTTGCACAGACTTTAA
TGTGCACAAGAATCACTAAAGAATCATGTTAAACATGCAGATTCTCGGTCAATAGTCTGGGAGGTGAGGCAG
ATCTAAGATTCTACATTTCTGATAAGCTTCCAGGTAATGCTAATGCTGCAGGCCCAACCCCACTTTGAGT
AGCAAGGGTTTGAATGAATTTTTGTCTTTTCTGATAAACAATTATCAAGTTCCAATGAAATAAGCAAGCAAT
TGAATCTTATT ↑ AACAAATGAAATA ↓ ATCAGAAGGGCAAACAGCTTGGCATGTGACTGAGACTGGGTTTGTAT
GTATGGGTTTCTTAGTGCCAAATAATTTTCAGAGTGTTTACTTTTTCTTTTTT
```

Filled site:

```
GTAGTTGTGTCATTCATTTTTATCAGACCTCAGCAGCTGTGAGGCTAATTAGGACTTTTGCACAGACTTTAA
TGTGCACAAGAATCACTAAAGAATCATGTTAAACATGCAGATTCTCGGTCAATAGTCTGGGAGGTGAGGCAG
ATCTAAGATTCTACATTTCTGATAAGCTTCCAGGTAATGCTAATGCTGCAGGCCCAACCCCACTTTGAGT
AGCAAGGGTTTGAATGAATTTTTGTCTTTTCTGATAAACAATTATCAAGTTCCAATGAAATAAGCAAGCAAT
TGAATCTTATTAACAATGAAATA GGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAG
GCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGT
CTCTACTAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACT
CGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCG
CCACTGCACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC
ATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACAATGAAATAATCAGAAGGGCAAACAGCTT
GGCATGTGACTGAGACTGGGTTTGTATGTATGGGTTTCTTAGTGCCAAATAATTTTCAGAGTGTTTACTTTTT
CTTTTTT
```

hAT-Charlie DNA element at the 5'.

CLONE 61

[JK30]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 50,000,464

Strand: plus

DR: AAAAGCTGAAAGA

ENDOsites: TTTT/AA

Empty site:

```
CATTCTCCTCCCTCCCTCCACCTCCTACCTCTTCCTCTCACTGGCTGAACCCAATGGGATGCCAGAAAATGG
CCATGGATGCAGTACATTCCATACAACATAGTGTAATATGTTTTCAAATCGGAGGTTTGCTGATATAACTG
GAAAATCCAAGAAAAAAAATCAGATACAGTACACGTCTCCAAGTGTTTTCAAATAGGGAAATAATCATATTA
AAATGTAGATTTCCTGGCTTCTCTT↑AAAAGCTGAAAGA↓TCCCCAGCTGCGATGGCTCATGCCTGTAATCC
CAGCACTTCGGAAGGCCGAGGCGGGTGGATCACTTGAGGTCAGGAGTTTGAGACAAGCCTGGCCAACATGGT
GAAACCCCATCTCTACTAAAAATACAAAAATTAGCTGGGCGTGGTGGCAGGCACCTGTAGTCCCAGCTACTA
GTGGGGCTGACGCAGGATAATCA
```

Filled site:

```
CATTCTCCTCCCTCCCTCCACCTCCTACCTCTTCCTCTCACTGGCTGAACCCAATGGGATGCCAGAAAATGG
CCATGGATGCAGTACATTCCATACAACATAGTGTAATATGTTTTCAAATCGGAGGTTTGCTGATATAACTG
GAAAATCCAAGAAAAAAAATCAGATACAGTACACGTCTCCAAGTGTTTTCAAATAGGGAAATAATCATATTA
AAATGTAGATTTCCTGGCTTCTCTTAAAAGCTGAAAGAGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCC
CCGTCTCTACTAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC
ACTCCAGCCT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGCTGAAAGATCCCCCAGCTGCGATG
GCTCATGCCTGTAATCCCAGCACTTCGGAAGGCCGAGGCGGGTGGATCACTTGAGGTCAGGAGTTTGAGACA
AGCCTGGCCAAC
```

LTR at the 5'; hAT-Charlie DNA Element flanks the insertion site; Alu at the 3'.

CLONE 62

[JK11]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 15

5' position: 33,056,819

Strand: plus

DR: AAAAATGTTAGCGGC

ENDOsites: TTTT/GA

Empty site:

```
CTCAGACTCTAGAATTGTTAGACAATGCATTTCTGTTTATAAATTGCCATTCTCAGGTATTCTGTTACAGG
AACACAAAACGTACTAAAACAGATGTTAGTTGGACCATCAGCTTCATAGACTATTTAAAGACTAGGCAAAGA
TGTATACTCATTAGCTAAGCAAGGGAGGGTAAATCTTGGTTAGACCAGAGATGAGATTCTTCCTATGGTGTG
CTGGTATTTTTTCTGGGTCCTTATGACATCCAGGCCTCTACCCTCACATAGGTGTTGTAATTCAGAACACA
AACCTAATAATGTTTCTC ↑ AAAAATGTTAGCGGC ↓ CTTTGGATTCTTCTTTTCAAAGAATAGTTCTAGAATA
TTTCTCCATGATAGAGTATTTTGAAGGAGAGAGCGGTCTAATTTGATGAATGAATCCATCAGT
```

Filled site:

```
CTCAGACTCTAGAATTGTTAGACAATGCATTTCTGTTTATAAATTGCCATTCTCAGGTATTCTGTTACAGG
AACACAAAACGTACTAAAACAGATGTTAGTTGGACCATCAGCTTCATAGACTATTTAAAGACTAGGCAAAGA
TGTATACTCATTAGCTAAGCAAGGGAGGGTAAATCTTGGTTAGACCAGAGATGAGATTCTTCCTATGGTGTG
CTGGTATTTTTTCTGGGTCCTTATGACATCCAGGCCTCTACCCTCACATAGGTGTTGTAATTCAGAACACA
AACCTAATAATGTTTCTC AAAAAATGTTAGCGGC GGCCGGGCGGGTGGCTCAGCCTGTAATCCAGCACTT
TGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGT
CTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAG
GCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC
AGCCT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAATTAGCGGCCTTTGGA
TTCTTCTTTTCAAAGAATAGTTCTAGAATATTTCTCCATGATAGAGTATTTTGAAGGAGAGAGCGGTCTAAT
TTGATGAATGAATCCATCAGT
```

LTR at the 5'.

CLONE 63

[K4, K11, K19, K24]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 86,633,892

Strand: minus

DR: TAAAGGAAATGAGG

ENDOsites: TTTA/AT

Empty site:

AGTCAAAGAAGACAAGAAAAGTTCTATAATCCAAGAACATGCATCTCCAGAATGAAAGGGGTACTCGTGTC
CCAGCACAGGAGAAAACACCACAGCAAACAAGTCAAACATTAACAAAAAAAAAAAAAAAAAAAAAAAAAGAGG
ATCCCTGTTGCTACATCCCCTACTTCCATCATAACATTGCTCTCAAGACAACCACTTTAATTCTCTTAGCTCT
CTCTTCTAATATGTGTGTATTACTGTTTCTTGATTCATCAGTTTCAGGACTTAACTACTGACTTTTTAT **TAA**
AGGAAATGAG ↓ GATTTTAGTTTCATGTATCCACCTCTCTTCCCCACACTCTCCTAATAGAATTATATTGTAAT
TTTCCATAAAAATTGGCATTTCAGTATTTTCCTTCTTATGA

Filled site:

AGTCAAAGAAGACAAGAAAAGTTCTATAATCCAAGAACATGCATCTCCAGAATGAAAGGGGTACTCGTGTC
CCAGCACAGGAGAAAACACCACAGCAAACAAGTCAAACATTAACAAAAAAAAAAAAAAAAAAAAAAAAAGAGG
ATCCCTGTTGCTACATCCCCTACTTCCATCATAACATTGCTCTCAAGACAACCACTTTAATTCTCTTAGCTCT
CTCTTCTAATATGTGTGTATTACTGTTTCTTGATTCATCAGTTTCAGGACTTAACTACTGACTTTTTAT **TAA**
GGAAATGAGGGCCGGGCGGGTGGCTCACGCCGTGAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCA
CGAGGT CAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAAATACAAAA
AATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGA
ACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGC... [NEOcassette] AAAA
AAAAAAAAAAAAAATTTACAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATAAAGGAAATGAGGATTTTGTTCAT
GTATCCACCTCTCTTCCCCACACTCTCCTAATAGAATTATATTGTAATTTTCCATAAAAATTGGCATTTCAGTA
TTTTCTTCTTATGA

LINE1 at the 5' and flanking insertion site.

CLONE 64

[G34, G152, G154, G160, G165, G168, G176, G178, L26]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 130,084,684

Strand: plus

DR: AGAAGTTCGAGACC

ENDOsites: TTCT/AG

Empty site:

```
GCCAGCACTGTGCTCTATCATATCCATCTATATCACGCATATATAACATCTATCTATCACATACATATCAGCA
CTGTGCTCTATCATAACATCCACACCGTGTACTATATATCAGTAGCATACTGTCACCAGCATTTCATAAAG
AAAGGAGATCTTAACATGCTAACTGCAGGTAGGTCATACTGTTGGTATAAAAGACAGTCTTGTATTGCCAGG
CACGGTGGCTCATGCCTGTAATACCAGCACTCTGCGAGGCCGAGGCAGGTGGATTGTTTGAGTCT↑AGAAGT
TCGAGACC↓AGACCTGGGCAACATAGACATTTTTACCTGTCCGGTAAAAATGCAAAAATTAGCCAGGCATG
GTGGCGGGCTCCTGTAATCCCAGCCACTTGGGAGACT
```

Filled site:

```
GCCAGCACTGTGCTCTATCATATCCATCTATATCACGCATATATAACATCTATCTATCACATACATATCAGCA
CTGTGCTCTATCATAACATCCACACCGTGTACTATATATCAGTAGCATACTGTCACCAGCATTTCATAAAG
AAAGGAGATCTTAACATGCTAACTGCAGGTAGGTCATACTGTTGGTATAAAAGACAGTCTTGTATTGCCAGG
CACGGTGGCTCATGCCTGTAATACCAGCACTCTGCGAGGCCGAGGCAGGTGGATTGTTTGAGTCTAGAAAGTT
CGAGACCGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACG
AGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAATAAATAAATAA
TAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACC
CGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcassette] AAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTACA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAGTTCGAGACCAGACC
TGGGCAACATAGACATTTTTACCTGTCCGGTAAAAATGCAAAAATTAGCCAGGCATGGTGGCGGGCTCCTG
TAATCCCAGCCACTTGGGAGACT
```

hAT-Charlie DNA element at the 5' Alu flanking insertion site.

CLONE 65

[L35, L36]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: X

5' position: 115,456,032

Strand: minus

DR: GAAAAGGTGATATTT

ENDOsites: TTTC/AA

Empty site:

TGTACAGTAAATGCTTACCAAGGCCCTAAATCTTGACAGATCTTGAGCCTCTGGCTGTGTCTATGCTTGCCA
AATCTCAATATTTGAAAATATCGAAGTATGCAAATATTTTCCAATATTCCTCAAATGCTTAGTGTAGATAC
AGAACTCGTACTTTTACTGAGCACCAGAACCACAGGCTGAGTCAGACTGGGAATACAAAAGAAATT **↑GAAAA
GGTGATATTT** ↓GAGGAActCAAAGGTACCACACTGAACCTAGGCCGATGCTCTGCTTTCCATCCCTACATG
ACTGCCTCATCATAAGTAGCATCCACAGCTGCTCTTCT

Filled site:

TGTACAGTAAATGCTTACCAAGGCCCTAAATCTTGACAGATCTTGAGCCTCTGGCTGTGTCTATGCTTGCCA
AATCTCAATATTTGAAAATATCGAAGTATGCAAATATTTTCCAATATTCCTCAAATGCTTAGTGTAGATAC
AGAACTCGTACTTTTACTGAGCACCAGAACCACAGGCTGAGTCAGACTGGGAATACAAAAGAAATTGAAAAG
GTGATATTT**GGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCA
CGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAATACAAAAA
ATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAA
CCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] AAAAAAAAAAAAAAAAAA
AAACATTACAAAGAAAAAAAAAAAAAAAA**GAAA
AGGTGATATTTGAGGAActCAAAGGTACCACACTGAACCTAGGCCGATGCTCTGCTTTCCATCCCTACATG
ACTGCCTCATCATAAGTAGCATCCACAGCTGCTCTTCT

No repetitive sequences in the immediate proximity.

CLONE 67

[M34]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 13

5' position: 89,566,510

Strand: minus

DR: AAAAAATTTCT

ENDOsites: TTTT/AA

Empty site:

```
TGTTGAAGAGACTATTCTATTTCCATTGTAAGTTATTAGTGCCCTTGTCAAAGATTAGTTAACCATATATAC
ATGAGTTTATTTCTGGGCTTTTTATTCTGTTTCATTGGTCTATATGTCTGTTTTTCATGCCAGACTGTACTGT
TTTGGTTACTATAGCTTTGTAATGTAATTAGAAATCAAGAAGTATAATTCCTCCAGCTTTGTTATTTTTTAA
CAGATGGCTTTAGGTATTTGAGATATTTTGTGGATCCATATAAATTTTCATGGTTTT↑AAAAAATTTCT↓AAT
GAAAAATGCCTTTGAAATTTAATAGGGGTTGCATTGGATCTGTAGTTTGCTTTGTGTAGTACGGACATTTT
ACCAATATTGACTCTTCCAATCTAA
```

Filled site:

```
TGTTGAAGAGACTATTCTATTTCCATTGTAAGTTATTAGTGCCCTTGTCAAAGATTAGTTAACCATATATAC
ATGAGTTTATTTCTGGGCTTTTTATTCTGTTTCATTGGTCTATATGTCTGTTTTTCATGCCAGACTGTACTGT
TTTGGTTACTATAGCTTTGTAATGTAATTAGAAATCAAGAAGTATAATTCCTCCAGCTTTGTTATTTTTTAA
CAGATGGCTTTAGGTATTTGAGATATTTTGTGGATCCATATAAATTTTCATGGTTTTAAAAAATTTCTGGCCG
GGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGAT
CGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTG
GTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAG
C TTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAA
AAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAATTTCTAATGAAAAATGCCTTTGAAATTTAATAGGGGTTGCATTGGATCTGTAGTT
TGCTTTGTGTAGTACGGACATTTTACCAATATTGACTCTTCCAATCTAA
```

LINE1 flanking the insertion site.

CLONE 68

[M8]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 36,073,451

Strand: minus

DR: CAAAAGAAGGTTGA

ENDOsites: TTTG/GA

Empty site:

```
CAATTCAAAAAGTCAGAATGTTTCATTATCTCCAAAGAATTGCACTAGCTCCCTAGCAATGAATCCTAACCA
GATTGAAATGTCTGAAAAGATAGACACAGAATTCAGAATCTGGATAGGAAAGTTCAACAAGATC↑CAAAAAGA
AGGTTGA↓AATTCAATCCATGGAAGCCAGAAAAGTACCCCAATATATGAAAGACGTCATAGCTAGAAGAAAG
AACAAAATTGAACTTCTGGAATAGAGAAAACCACTA
```

Filled site:

```
CAATTCAAAAAGTCAGAATGTTTCATTATCTCCAAAGAATTGCACTAGCTCCCTAGCAATGAATCCTAACCA
GATTGAAATGTCTGAAAAGATAGACACAGAATTCAGAATCTGGATAGGAAAGTTCAACAAGATCCAAAAGAA
GGTTGAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGA
GGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATT
AGCCGGGCGTGGTGGCGGGCGCCTGTGGTCCCGGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCC
GGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGC... [NEOcassette] AAAAAAAA
AAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
CAAAAAGAAGGTTGAA
ATTCAATCCATGGAAGCCAGAAAAGTACCCCAATATATGAAAGACGTCATAGCTAGAAGAAAGAACAAAATT
GAACTTCTGGAATAGAGAAAACCACTA
```

LINE1 flanking the insertion site.

CLONE 72

[E10, E43, F25, N6]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 14,536,134

Strand: plus

DR: AAGAACAAGTATGTG

ENDOsites: TCTT/GT

Empty site:

```
TTTGAACAATGTCTCTATTTACAGGACAAAAAATAACCGGGAATAGTCAATGTATCTCCTTTGGGCATGCCT
CTGTAAACACCATCTAACTAAGGTGCTGATGGAACCTGCTGCTAGGGACCAGCCAGCAGTATTTTCACAATG
GTCAGCCCAGGCAGCATCAGACCATCCATGCGGCCCTGAGATTCTCCAGAGAAGTGAGGGGGTGGGCAATTT
CTCCAGGTCCCAGGAACACATCAAC↑AAGAACAAGTATGTG↓ACAGAAATCCTTCAATTAACATGACCTGG
GAAAACAGCCACACTTCTGAAGACATTTTATTCCAGCATTAATGGCATGCAGAGTAGTTTTTCCTTTGCG
```

Filled site:

```
TTTGAACAATGTCTCTATTTACAGGACAAAAAATAACCGGGAATAGTCAATGTATCTCCTTTGGGCATGCCT
CTGTAAACACCATCTAACTAAGGTGCTGATGGAACCTGCTGCTAGGGACCAGCCAGCAGTATTTTCACAATG
GTCAGCCCAGGCAGCATCAGACCATCCATGCGGCCCTGAGATTCTCCAGAGAAGTGAGGGGGTGGGCAATTT
CTCCAGGTCCCAGGAACACATCAACAAGAACAAGTATGTGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCC
AGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAA
ACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTAC
TCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACT
GCACTCA.. [NEOcassette] AAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAA
GAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACACAAAAAAAAAAAAAAAAAAAA
AAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAACAAGTATGTGACAGAAATCCTTC
AATTAACATGACCTGGGAAAACAGCCACACTTCTGAAGACATTTTATTCCAGCATTAATGGCATGCAGAG
TAGTTTTTCCTTTGCG
```

No repetitive sequences in the immediate proximity.

CLONE 73

[H1, H12, H15, H16, H17, H21, H39, H60]

Driver: L1

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 8

5' position: 81,155,536

Strand: plus

DR: AGAAATTCAGATGGTAG

ENDOsites: TTCT/AT

Empty site:

```
ACAGCCTTGAAATCAAGATTCCCAACTTATTTTCTATTCCATTTAAAAACGATTTGATTCTTTCCCTGGCTG
TCTTGGGTCACACTGATCTGATTTTCAACCCTGTCTGTGTACCTCATAATTTATGATAAGAAGGAACTAGT
AGAAGTGTTTTCCATTTTAAACAGGCTGGGGACAACACTATTTGCCTGAGCTGAAATTAACATCACTTCATTAGA
AATACAGTTTTTAAATCACAGTGAAAGGCAAGAGCAAAGACAAGATTTTAAAAATATGCCTTCCCTAT↑AGA
AATTCAGATGGTAG↓GTTGGGCGCCGTGGCTCACACCTGTAATCCCAGCACTTTGGGAAGCCGAAGTAGGCA
GATCACAAGGTCAGGAGTTCGAGACCAGTCTGGCCAACATGGT
```

Filled site:

```
ACAGCCTTGAAATCAAGATTCCCAACTTATTTTCTATTCCATTTAAAAACGATTTGATTCTTTCCCTGGCTG
TCTTGGGTCACACTGATCTGATTTTCAACCCTGTCTGTGTACCTCATAATTTATGATAAGAAGGAACTAGT
AGAAGTGTTTTCCATTTTAAACAGGCTGGGGACAACACTATTTGCCTGAGCTGAAATTAACATCACTTCATTAGA
AATACAGTTTTTAAATCACAGTGAAAGGCAAGAGCAAAGACAAGATTTTAAAAATATGCCTTCCCTATAGAA
ATTCAGATGGTAGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGG
ATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAA
ATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAA
TGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCTG... [NEOcas
sette]AAAAAAAAAAAAAAAAAACATTACAGAAATTCAGATGGTAGGTTGGGCGCCGTGGCTCACAC
CTGTAATCCCAGCACTTTGGGAAGCCGAAGTAGGCAGATCACAAGGTCAGGAGTTCGAGACCAGTCTGGCCA
ACATGGT
```

Alu at the 3'.

CLONE 74

[H7, H31, H40, H49, H52, H57]

Driver: L1

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 86,515,625

Strand: minus

DR: AAGAAAAAAAAACAAACTGC

ENDOsites: TCTT/AT

Empty site:

```
ATTTTCAATGTGCATGAAGAACATGGCAGTTACAATATCCTCTTTCATGAGCCACAGCCTTACTCCAACCTC
TCAATATAGAGGATCAAATGTATTCTTTGGCAAATGATGAATGATTATGTCTCAAGAACTTTGGGATCAG
TTATGAATCACAGAATCCTGTTAGAGAATGCTAAAGAGTCTACTGCATGATAGAATATTACTAATTCAGAGT
TCTTACAACCTTGAATTCTGTTTCATTTAGCCAGGAGTGAAGGAGAAGCCAGCCATCTAT↑AAGAAAAAAAACAA
ACTGC↓TAACCCAACAGGACAGTGTGAAGCTTTAACTTTGAAGAATAAATTTTTTCAGAGACTTAATAAGTCC
TAATTTCTATTAGTTTGCAACTCTGCTTCCAAGT
```

Filled site:

```
ATTTTCAATGTGCATGAAGAACATGGCAGTTACAATATCCTCTTTCATGAGCCACAGCCTTACTCCAACCTC
TCAATATAGAGGATCAAATGTATTCTTTGGCAAATGATGAATGATTATGTCTCAAGAACTTTGGGATCAG
TTATGAATCACAGAATCCTGTTAGAGAATGCTAAAGAGTCTACTGCATGATAGAATATTACTAATTCAGAGT
TCTTACAACCTTGAATTCTGTTTCATTTAGCCAGGAGTGAAGGAGAAGCCAGCCATCTATAAGAAAAAAAAACAAA
CTGCAGGCCGGGCGGGTGGCTCACGCCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAG
GTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAATACAAAAATTA
GCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCG
GGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGC... [NEOcassette] AAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAGAAAAAAAAAACAAACTGCTAACCCAACAGGACAGTGTGAAGCTTTAACTTTGAAGAATAAA
TTTTTCAGAGACTTAATAAGTCCTAATTTCTATTAGTTTGCAACTCTGCTTCCAAGT
```

No repetitive sequences in the immediate proximity.

An extra A added immediately 5' of Alu.

CLONE 76

[G150]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 97,694,639

Strand: plus

DR: none

ENDOfsite: unknown

Empty site:

```
CCTGTCTTCAGGGAAGTCTGAGAGCATTAGTTGCATTAAAACAAATAAAAAACAAACAAACAAAAACCTGC
AGGTATCTTGGGCTCTGGAAGGACATACAGGTCAGGGTGAAAAGTATGCTTGGTCCAAGCATCTTTTTCTT
TTAACACATGAAGTATGTGTCTTATTATTTAAAAGACATTGAGAAAAAGGAACATTCAACATTCTCTTGGT
TATAGATACTGGAGTATTAACAAAGTGAAAAGAGAAAAACTAAAATTTTGTTGGCTCTGACTTACTAGTTT
TAGTAATTTATAAGAACAGCTTTCCATTTGTGCCTTTCATACATCCACTGAGTCATGAGGTTTCATCAATG
T
```

Filled site:

```
CCTGTCTTCAGGGAAGTCTGAGAGCATTAGTTGCATTAAAACAAATAAAAAACAAACAAACAAAAACCTGC
AGGTATCTTGGGCTCTGGAAGGACATACAGGTCAGGGTGAAAAGTATGCTTGGTCCAAGCATCTTTTTCTT
TTAACACATGAAGTATGTGTCTTATTATTTAAAAGACATTGAGAAAAAGGAACATTCAACATTCTCTTGGT
TATAGATACTGGAGTATTAACAAAGTGAAAAGAGAAAAACTAAAAAAAATACAAAAATTAGCCGGGCGTG
GTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGCGGAG
CTTGCACTGAGCCGAGATCCCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAG... [NEOcassette] AAA
AAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAA
AAAAAAAAAAAAAAAAACACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAANGGGGNNTTNNN... [unknown 3' sequence]
```

No repetitive sequences in the immediate proximity.

Alu insert truncation missing between 115-122 bp of the 5' sequence.

These seven nucleotides are identical between the Alu vector and insertion sequence.

We were unable to sequence past the A-tail and primers designed from the 3' genomic sequence did not work on the recovered insert plasmid.

CLONE 77

[G50,G59,G146,G147,G148,G149, G185]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 75,775,172

Strand: plus

DR: TAGGAATGTT

ENDOsites: CCTA/AA

Empty site:

```
CCCTTTAAATGGGTATTTTTCAAGATTGATAGATCTATAAATACATGTACTTTTGTAAGTAAGATGAATG
CATGATAGTTATAAGCTATTATACTATTCAACTTCAAGTGACCTAAGAATTTGAAAGCAATATAAAATGTAA
ATTCTGTCCTAATATTCGATCTGTCTTTGCATTGCCTTATCCGAACCATAACCTTGTGGCTTTTTGTATAAAT
AAGTCCCCTGAAGTCATAATAAAGTCAAATGTTGTGAAATCAATTTTTT †TAGGAATGTT ‡GAAGCTTGGTT
TTCAATGTATGCTGATCTCAATTTACTCTTCTAACATACGAAACAGTTTCTAGATTTATACCTTGAAAATAG
AGATAGCTATGGGTTTG
```

Filled site:

```
CCCTTTAAATGGGTATTTTTCAAGATTGATAGATCTATAAATACATGTACTTTTGTAAGTAAGATGAATG
CATGATAGTTATAAGCTATTATACTATTCAACTTCAAGTGACCTAAGAATTTGAAAGCAATATAAAATGTAA
ATTCTGTCCTAATATTCGATCTGTCTTTGCATTGCCTTATCCGAACCATAACCTTGTGGCTTTTTGTATAAAT
AAGTCCCCTGAAGTCATAATAAAGTCAAATGTTGTGAAATCAATTTTTTTAGGAATGTTGGCCGGGCGCGGT
GGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGGAGATCGAGACCA
TCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGG
CGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCCGAGCTTGCAGT
GAGCCGAGATCCCGCCACTGCACTCCAGCCTG... [NEOcassette] AAAAAAAAAAAAAAAAAAACA
TTACAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG
AAAAAAAAAAAAAAAAAAAAAAAAATAAAAATAGGAATGTTGAAGCTTGGTTTTCAATGTATGCTGATCTCA
ATTTACTCTTCTAACATACGAAACAGTTTCTAGATTTATACCTTGAAAATAGAGATAGCTATGGGTTTG
```

No repetitive sequences in the immediate proximity.

CLONE 78

[E4, F39]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 117,610,791

Strand: minus

DR: AGAATCTG

ENDOsites: TTCT/AA

Empty site:

```
TCTAAAAGAAACTCAAATATATCATGCTTCCTCAAATTTGCTGGAGAAATATTTATAAGTTTACATTCATTA
ATAAAGTGCTGTGAAATTTCTTCAGTCTCTGTATTTACTCAAACCCCTTAGAGTTTCTTCATCTTGCTTAAAT
TTTTTCCTGGATGAAGGCATGCTGCAGAGCCTGGTTGATGCTAATTCATTTAGCTAGGCCCAACATT↑AGAA
TCTG↓GTCCAACAAGTCCTTTAGCTAGTATACTTTTTTACTGTTTCTCAGGAAGTGTCTGGCACCCAATC
AAGTTGGCCAATAGGTCCTTAGTTGGATTAATT
```

Filled site:

```
TCTAAAAGAAACTCAAATATATCATGCTTCCTCAAATTTGCTGGAGAAATATTTATAAGTTTACATTCATTA
ATAAAGTGCTGTGAAATTTCTTCAGTCTCTGTATTTACTCAAACCCCTTAGAGTTTCTTCATCTTGCTTAAAT
TTTTTCCTGGATGAAGGCATGCTGCAGAGCCTGGTTGATGCTAATTCATTTAGCTAGGCCCAACATTAGAAT
CTGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGT
CAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAATACAAAAAATTAGC
CGGGCGTGGTAGCGGGCGCTGTAGTCCCAGTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGG
AGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCTG... [NEOcassette] AAAAAAA
AAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAACACACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAATCTGGTCCAA
CAAGTCCTTTAGCTAGTATACTTTTTTACTGTTTCTCAGGAAGTGTCTGGCACCCAATCAAGTTGGCCAA
TAGGTCCTTAGTTGGATTAATT
```

No repetitive sequences in the immediate proximity.

CLONE 79

[F1, F2, F5, F12, F15]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 64,887,860

Strand: plus

DR: AGAAGATGAAAAAG

ENDOsites: TTCT/AA

Empty site:

```
CTTTTGGGAACACTGAAACCTCACTATATCCAATCACAGATGTGATTAGGTTACCAAGTCCGGCCAGGCAGT
CACAGAGGTACAAACGAGGCCATGCTCCCAACATAATATTTACTTCTAAAACCAAGGCAGACCAGATTCCTG
CCCTGGACTCTAAGGCCACAGCTGGTACCAAGTTCAGGGAACGGCCAGGTTACCTTCTATACAAACCTCTT
CCCCACCCATCCCTTCTATTGCTGCCTCCATAACAAACCTCTCACCACAGTGATTCCCTGCTACCTTCTCTG
TTT↑AGAAGATGAAAAAG↓AATGACCTGGGGGACTGATCAAGTTACTTAGGATAGGGAATAACCCCAATTT
TACATCTGAAGCCCCCAGGATCTGTAGCTGTTTCTTCACAGGAAAT
```

Filled site:

```
CTTTTGGGAACACTGAAACCTCACTATATCCAATCACAGATGTGATTAGGTTACCAAGTCCGGCCAGGCAGT
CACAGAGGTACAAACGAGGCCATGCTCCCAACATAATATTTACTTCTAAAACCAAGGCAGACCAGATTCCTG
CCCTGGACTCTAAGGCCACAGCTGGTACCAAGTTCAGGGAACGGCCAGGTTACCTTCTATACAAACCTCTT
CCCCACCCATCCCTTCTATTGCTGCCTCCATAACAAACCTCTCACCACAGTGATTCCCTGCTACCTTCTCTG
TTTAGAAGATGAAAAAGGGCCGGGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCAGGAGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAA
TACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAAT
GGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGC... [NEOcassett
e] AAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAGATGAAAAAGATGACCTGGGGGACTGATCAAGTTACTTAG
GATAGGGAATAACCCCAATTTTACATCTGAAGCCCCCAGGATCTGTAGCTGTTTCTTCACAGGAAAT
```

No repetitive sequences in the immediate proximity.

CLONE 80

[D16, D17, D35, D42, D123, D137, D174, E11]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 46,713,555

Strand: plus

DR: AAAATTTATGTATTA

ENDOsites: TTTT/AA

Empty site:

```
TGTGGTATATCCATATAAATTAATATATTTATATATAAATATGTGCATATTTATATTGAGTATATTAAACTC
TGTGAATATACTAAAATCCACAGAATTGTACACTTTATAAGTATGAATTTTTATGGTATATGAATTATATCT
AAATGAAGCTGTTAAAAAGAAAAAGAAAAACACAACCTGGCTTCTGGCAGAACAATTCTAATTTTTTATCATA
TAGATATTTAATTTCCACATAGAAGAGTTATAGCATTTTAATAAATGATCCTGAGGTTATTTATT↑AAAATT
TATGTATTA↓AAATAACCCTGGGGTTATTTATTAATTTGCATAAGGCTGAGGCAGGAGAATGGAGTGAACC
CGGGAGGCGGAGCTTATAGTGAGCTGATTTTCGCCTCAC
```

Filled site:

```
TGTGGTATATCCATATAAATTAATATATTTATATATAAATATGTGCATATTTATATTGAGTATATTAAACTC
TGTGAATATACTAAAATCCACAGAATTGTACACTTTATAAGTATGAATTTTTATGGTATATGAATTATATCT
AAATGAAGCTGTTAAAAAGAAAAAGAAAAACACAACCTGGCTTCTGGCAGAACAATTCTAATTTTTTATCATA
TAGATATTTAATTTCCACATAGAAGAGTTATAGCATTTTAATAAATGATCCTGAGGTTATTTATTAATTTT
ATGTATTAACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCA
GGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC... [NEOcassette
] AAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAATTTATGTATTTAAATAACCCTGGGGTTATTTATTAATTT
GCATAAGGCTGAGGCAGGAGAATGGAGTGAACCCGGGAGGCGGAGCTTATAGTGAGCTGATTTTCGCCTCAC
```

L1 at the 5'; Alu at the 3'.

Alu insert truncation missing 129 bp of the 5' sequence.

CLONE 81

[Brown Alu rescue MP#52, 56, 72, C47, E12, colored 6]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 66,895,293

Strand: plus

DR: AAGACATGGTT

ENDOsites: TCTT/AC

Empty site:

```
AGAAGGAAGGAAGGAAGCAAGGAAGGAAGGAAGGAAGGAAGGACGGACGGAAGGAAGGACGGACAGAAGGAA
GGAGAAAGAAAAAAGAAAGAAGGAAGGAAGGAAGGAAGGAAAGAAAGAAAGAAAGGAAAGAAAGAAAGAAA
GAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAGAAAGAAAGAAAGAAACTCCCCGCTCCAAATAACTC
CCTGGCAGCTTGTTCATAGTGCCTGAAATCCTGCCATTGGATGTGCACTGTGCACAGGT ↑AAGACATGGTT↓G
CCTGATGAATGCAAGTGCCGCTGCGAAGGCCACAGTCAGTAACACCTTGTGGGATGAAAAGGAGGATGTTA
TCGCCTCCTTTTCAGTCTGCTGTGTGA
```

Filled site:

```
AGAAGGAAGGAAGGAAGCAAGGAAGGAAGGAAGGAAGGAAGGACGGACGGAAGGAAGGACGGACAGAAGGAA
GGAGAAAGAAAAAAGAAAGAAGGAAGGAAGGAAGGAAGGAAAGAAAGAAAGAAAGGAAAGAAAGAAAGAAA
GAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAGAAAGAAAGAAAGAAACTCCCCGCTCCAAATAACTC
CCTGGCAGCTTGTTCATAGTGCCTGAAATCCTGCCATTGGATGTGCACTGTGCACAGGTAAGACATGGTTGGC
CGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAG
ATCGAGACCATCCCGGCTAAAACGGTGAAACCCCGTCTCTACTAAAATACAAAAAATTAGCCGGGCGTAGT
GGCGGGCGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCT
TGCAGTGAGCCGAGATCCCGCCACTGCACTCCAG... [NEOcassette] AAAAAAAAAAAAAAAAAACATT
ACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGACATGGTTGCCTGATGAATGCAAGTG
CCGCTGCGAAGGCCACAGTCAGTAACACCTTGTGGGATGAAAAGGAGGATGTTATCGCCTCCTTTTCAGTC
TGCTGTGTGA
```

No repetitive sequences in the immediate proximity.

CLONE 82

[C40, C49, E7]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 94,664,520

Strand: minus

DR: AAAACTTCCTACTCT

ENDOsites: TTTT/AG

Empty site:

```
ATAAATGCTGCTGGAACAACCTGGACATTCACATGCAAAAAAGTGAATAAATAAATGTAAACAGTGACCTTCA
CTTTTTATAAAAATTAATTCAAAATAGATCATAGACCTAAATGTAAAACACAAAACCTCTAAGACTCTAGAAG
ATAACACAAGGGAAAATTTAGATGACCTTGGGTTTGGCAATTAGTTTTTAGAAACACCAAAGCACAATGCAT
GAGGGAAAGAAAAAAGGTAAACTGGACTTTTCCAATTTAATTTTATTAAAACT↑AAACTTCCTACTCT↓T
TAAAACACTGTTAAGAAAATGAAAAACAAGCCACAGACTGGGAGAAAATATGTTTCGAAACACAAATTGAA
TCAAGGACTTGAATCCAAAATATAAAA
```

Filled site:

```
ATAAATGCTGCTGGAACAACCTGGACATTCACATGCAAAAAAGTGAATAAATAAATGTAAACAGTGACCTTCA
CTTTTTATAAAAATTAATTCAAAATAGATCATAGACCTAAATGTAAAACACAAAACCTCTAAGACTCTAGAAG
ATAACACAAGGGAAAATTTAGATGACCTTGGGTTTGGCAATTAGTTTTTAGAAACACCAAAGCACAATGCAT
GAGGGAAAGAAAAAAGGTAAACTGGACTTTTCCAATTTAATTTTATTAAAACTAAAACCTCCTACTCTGGC
CGGGCGGGTGGCTCACGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAG
ATCGAGACCATCCCGGCTAAAACGGTGAACCCCGTCTCTACTAAAATACAAAAAATTAGCCGGGCGTAGT
GGCGGGCGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCT
TGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] AAAAAAAAAAAAAAAAAACATTAC
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACTCCTACTCTTTAAAACACTGTTAAGAAA
ATGAAAAACAAGCCACAGACTGGGAGAAAATATGTTTCGAAACACAAATTGAATCAAGGACTTGAATCCAAA
ATATAAAA
```

LINE1 flanking the insertion site.

CLONE 83

[D4, D41, D43, D44, D46, D62, D68, D84, D176]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 8,072,661

Strand: minus

DR: GAGAAATGCAGAT

ENDOsites: TCTC/AT

Empty site:

```
AAAACATATGCATAGTACAAAAAATTATAAGCAAAAGTTAAAGAATAGATGATAATCTAGGGGGAATATTTTA  
AATTCATATTGCAGAGAAAGGACTAATTTTGACATATATATATATCTACAAATTTACAAGATAAATACCAAT  
AACCCAATAAAAACGTACAAAACATTTCTACAGAAATTTCACTGGTAAGGAAATACAAAAAACTCTCAACTA  
TATGAAAAGATGCCTAACCTCATTCAATGAGAAATGCAGATGAGAAATGCAGATCATGTTTCAACTTAGCATATTTGTAA  
TCACCAAAAAGTTTCATAGAGTGTTGGAGGGGGTGTGGGCAAACAGGCGTTGCCTATTTGTTGGTAGGAGTA  
AA
```

Filled site:

```
AAAACATATGCATAGTACAAAAAATTATAAGCAAAAGTTAAAGAATAGATGATAATCTAGGGGGAATATTTTA  
AATTCATATTGCAGAGAAAGGACTAATTTTGACATATATATATATCTACAAATTTACAAGATAAATACCAAT  
AACCCAATAAAAACGTACAAAACATTTCTACAGAAATTTCACTGGTAAGGAAATACAAAAAACTCTCAACTA  
TATGAAAAGATGCCTAACCTCATTCAATGAGAAATGCAGATGGCCGGGCGGGTGGCTCACGCCTGTAA  
TCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGG  
TGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAG  
CTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGC  
CACTGCACTCCAGCCT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAATTACAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAGAAATGCAGATCATGTTTCAACTTAGCATATTTGTAATCACC  
AAAAAGTTTCATAGAGTGTTGGAGGGGGTGTGGGCAAACAGGCGTTGCCTATTTGTTGGTAGGAGTAAA
```

LINE1 flanking the insertion site.

CLONE 84

[D10, D24, D33, D53, D55, D75, D76, D89, D111, D116, D126, D136]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 33,346,926

Strand: minus

DR: AGAAACTGG

ENDOsites: TTCT/GA

Empty site:

TGAGACTAACAAATTCTTAAGTAATAAAAATCATGAACCTCTGCCTGGAACAATGAGCACTTGAGAGAGAAAAC
TTACCTCATGCTTGCCCATGCACCACTTCTGAGTTAGGAAAGTGCAAGGGGGACACTTCTCCTCACTATGAC
AAGAATGATATACTGCAGAAAGAGAAAGGTAACCTTTAGGAATACTTTCTAAATAAAGCCATGTAAACCATTA
TACATCATATAAGTGGCATAACGGCATGAAACTTTTAAATTC **↑AGAAACTGG↓** GAGTACTTTTGAAAAACGGT
CACAGGAAAGTAAAAAGTACCTTGCTTTATGTTAAAGTGTTGAAGGACAAGCATGAGTGAGAAAAAGAAACC
CAACCAAG

Filled site:

TGAGACTAACAAATTCTTAAGTAATAAAAATCATGAACCTCTGCCTGGAACAATGAGCACTTGAGAGAGAAAAC
TTACCTCATGCTTGCCCATGCACCACTTCTGAGTTAGGAAAGTGCAAGGGGGACACTTCTCCTCACTATGAC
AAGAATGATATACTGCAGAAAGAGAAAGGTAACCTTTAGGAATACTTTCTAAATAAAGCCATGTAAACCATTA
TACATCATATAAGTGGCATAACGGCATGAAACTTTTAAATTCAGAAACTGG**GGCCGGGCGGGTGGCTCACGC**
CTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTA
ACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAG
TCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA
TCCCGCCACTGCACTCCAGCCTG... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAATTACAG
AAACTGGGAGTACTTTTGAAAAACGGTCACAGGAAAGTAAAAAGTACCTTGCTTTATGTTAAAGTGTTGAAG
GACAAGCATGAGTGAGAAAAAGAAACCAACCAAG

No repetitive sequences in the immediate proximity.

CLONE 85

[C4]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 147,900,227

Strand: minus

DR: AGAAATTAGTTTTG

ENDOsites: TTCT/AT

Empty site:

```
AGTTATAAGTTCTTCTTAAGAAGCTTCTTAAATCCTTTCTTAAGTTCTTCTACTTTTAGATATTTTATTGTTG
AAATACAATAAAGAAAAGCTAAAAACAGCCATATGTTGCTCAATTTGTTCAATTTATTTTCAATTGAGATTTT
TCTTGATCTAAAATGGTTTCTAT↑AGAAATTAGTTTTG↓ATTTTATTTTACAAGAATCTCCTTCATAGTCAT
ATGAAATTTTTAACTAATGTTCTTGCAACGGAATGTCACCTTTTGTTGCATATTTTACAAGTAGGTTT
```

Filled site:

```
AGTTATAAGTTCTTCTTAAGAAGCTTCTTAAATCCTTTCTTAAGTTCTTCTACTTTTAGATATTTTATTGTTG
AAATACAATAAAGAAAAGCTAAAAACAGCCATATGTTGCTCAATTTGTTCAATTTATTTTCAATTGAGATTTT
TCTTGATCTAAAATGGTTTCTATAGAAATTAGTTTTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCCGGCTAAAACGGTGAACC
CCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGTAGTGGCGGGCGCCTGTAGTCCCAGCTACTTGGGAG
GCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC
AG... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAGAAATTAGTTTTGATTTTATTTTACAAGAATCTCCTTCATAGTCATATGAAATTTTTA
ACTAATGTTCTTGCAACGGAATGTCACCTTTTGTTGCATATTTTACAAGTAGGTTT
```

DNA element flanking the insertion site.

CLONE 87

[C16]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 95,168,036

Strand: plus

DR: TAAAATCTAGTCT

ENDOsites: TTTA/AA

Empty site:

```
GAATTCAGAGACAGCTTAGGTGGGTTGTTCTGGTTCAGGATCACTCAGATTTGCAGTTCAGATGCCAATCAG
GGCTGTGTTTCATCTGAAGGCTTGACTGGGGCTGCACAATCTACTTCCAAGATACCCCACTCACATAGCTGTT
GGCAGAAAGCCTCAGTTTCCTTGCCATGTGGGCCTCTCCATAGGGTTGAGTGTGAAGCCGTATGGCAGGTGG
CTTCCCCAAGAGCTAGTAATCTAAGAGAGGGCAAAATAGAAGCCACAATGCCTTT↑TAAAATCTAGTCT↓CC
AAAGTCTAGCAATATCACTCCTTTAACTTTCTATTAATTAGAAATGAGTCTTCAAGTACAGCCCATGTTAAG
GGGAAGAGAATTAGGCTCCATCTTTC
```

Filled site:

```
GAATTCAGAGACAGCTTAGGTGGGTTGTTCTGGTTCAGGATCACTCAGATTTGCAGTTCAGATGCCAATCAG
GGCTGTGTTTCATCTGAAGGCTTGACTGGGGCTGCACAATCTACTTCCAAGATACCCCACTCACATAGCTGTT
GGCAGAAAGCCTCAGTTTCCTTGCCATGTGGGCCTCTCCATAGGGTTGAGTGTGAAGCCGTATGGCAGGTGG
CTTCCCCAAGAGCTAGTAATCTAAGAGAGGGCAAAATAGAAGCCACAATGCCTTTTAAAATCTAGTCTGGCC
GGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGCGGGCGGATCACGAGGTGAGGAGA
TGAGACCATCCCGCTAAAACGGTGAAACCCGTCTCTACTAAAATACAAAAATTAGCCGGCGTAGTG
GCGGGCGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCTT
GCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGTAAAATCTAGTCTTCCAAGTCTAGCAATATCACTCCTT
TAACTTTCTATTAATTAGAAATGAGTCTTCAAGTACAGCCCATGTTAAGGGGAAGAGAATTAGGCTCCATCT
TTC
```

LTR flanking the insertion site.

CLONE 88

[Brown Alu rescue MP#69 ,55, 59, 105, 87, 86,67, C1, C38, C51, colored 1]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 126,744,038

Strand: minus

DR: AAACAATAACTTCT

ENDOsites: GTTT/AT

Empty site:

```
G TTCAGTAAGTTGCCTGACACATGGGGAGCACACAAATAAAGATTAAAAAAATAAAGATTAAAAATGTAGC
ATGGTTTTTTGTTTTTGTAGTCTAGGAAGAATTTTTATTAGAAGTAGGAAGAAATGTCAGGTTCTT
TTATTGTGGGGGAAACACACATAATATGGAACTAACTGGCTTAACCATTTTTTAAATGTACATTTTACAGGGAC
GTTAAGTACATTCATATGTGCAACCATCACCACCATCCATCTCTAAAACCTTTTTCATCTTCCCTACTGAACC
TCTAAACCCAAT↑ AAACAATAACTTCT ↓TGCTCCTCCCTTTCTCTAGTCTATGTCAACCACCATTCTTTCT
TCTGTTTCTATGAATTTGGCTATTCTAGGTATCTCACATAAGTCAAATCATAACAGT
```

Filled site:

```
G TTCAGTAAGTTGCCTGACACATGGGGAGCACACAAATAAAGATTAAAAAAATAAAGATTAAAAATGTAGC
ATGGTTTTTTGTTTTTGTAGTCTAGGAAGAATTTTTATTAGAAGTAGGAAGAAATGTCAGGTTCTT
TTATTGTGGGGGAAACACACATAATATGGAACTAACTGGCTTAACCATTTTTTAAATGTACATTTTACAGGGAC
GTTAAGTACATTCATATGTGCAACCATCACCACCATCCATCTCTAAAACCTTTTTCATCTTCCCTACTGAACC
TCTAAACCCAATAAACAATAACTTCT GGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGG
CCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCCGCTAAAACGGTGAACCCCGTCTCTACT
AAAAATACAAAAAATTAGCCGGGCGTAGTGGCGGGCGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGG
AGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAG... [NEOcas
sette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACAATAACTTCTT
TCTAGTCTATGTCAACCACCATTCTTTCTTCTGTTTCTATGAATTTGGCTATTCTAGGTATCTCACATAAGT
GAAATCATAACAGT
```

LINE-1 flanking the insertion site.

CLONE 89

[Green Alu rescue MP#9,10,11,12,59,C10, C12, colored 15]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 18

5' position: 72,573,745

Strand: minus

DR: AAAAATATTTTTTA

ENDOsites: TTTT/AT

Empty site:

```
GAAGATTTTAATAACAAATTTAAACAATTTTAGAGAAGCTTTTAAAGAAAATTCCTAAAGTTCTAAGTCTTAT
CCAGTGGGTATCAAAGAAAATACTATTACAAATTAATATCTAATGAAATATTAATCTTTAAATCATGGAAAG
ATATTCTATTCTCACTAAGCACCTATGAAAACACTGAATTAATCTGTAAGTCTATGTGACTTGAAAGTCATA
AATTCAGAATTAATAAACTTCAATTTATCCTCAAGAGTAGGATTTAATTTACAGATTCATAGTTAAATATCCA
TATTCACAAAATCATTACCATTTACAGTAAGGAAATAATGAAAT↑AAAAATATTTTTTA↓AATGAAAACAT
GAAAGGGTATTGAATATAACACGAATATAAAAGTCAATGAAATAACTAAATATATATAGCAGTACAAACATC
CTAAGAATTCAAAGAA
```

Filled site:

```
GAAGATTTTAATAACAAATTTAAACAATTTTAGAGAAGCTTTTAAAGAAAATTCCTAAAGTTCTAAGTCTTAT
CCAGTGGGTATCAAAGAAAATACTATTACAAATTAATATCTAATGAAATATTAATCTTTAAATCATGGAAAG
ATATTCTATTCTCACTAAGCACCTATGAAAACACTGAATTAATCTGTAAGTCTATGTGACTTGAAAGTCATA
AATTCAGAATTAATAAACTTCAATTTATCCTCAAGAGTAGGATTTAATTTACAGATTCATAGTTAAATATCCA
TATTCACAAAATCATTACCATTTACAGTAAGGAAATAATGAAATAAAAAATATTTTTTAGGCCGGGCGCGGTG
GCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCAT
CCCGGCTAAAACGGTGAAACCCGCTCTACTATAAAATACAAAAATTAGCCGGGCGTAGTGGCGGGCGCCT
GTAGTCCCAGCTACTTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCC
GAGATCCCGCCACTGCACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAA
AAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATATTTTTTAATGA
AAAACATGAAAGGGTATTGAATATAACACGAATATAAAAGTCAATGAAATAACTAAATATATATAGCAGTAC
AAACATCCTAAGAATTCAAAGAA
```

No repetitive sequences in the immediate proximity.

CLONE 91

[Brown Alu rescue MP#54, 78, 91, C9, colored 17]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 69,240,667

Strand: plus

DR: AAAAAGTTAATTCACC

ENDOsites: TTTT/GA

Empty site:

```
TGTTCCCTGCTGCAGATAACAAGCCAGAGCCTGTCCCTTTGTTTCCTGTAAGGAATGCTTTTAGCTAATCTAT
AACCTATAGAAACAATGCTTATCACTGGCTTATTGTCAGTAAATAGGTGGGTCAAACCTCTGTTTGAGGCTCT
CAGCTCTGAAGGCTGTTAGCTCCCTGATTCCCCTTTGTAATCTATTTCTGTGTCTTTGTCTTAATTCCTCT
AACGCCGCTGGGTGGGGTCTCCATGACCAAGCTGGTCTTGGCAACGATACTAGCAAACCTGAATCCAGTAGC
ACATCAAAAAGTTAATTCACC↓ATAATCATGTAAGCTTTATTCTAGGGACGCAACGTTGGTTCAACATACA
CAAAAAATAAACTAGGCCTAGTTTGTAGGAGTTTTTTATCATGAAGCA
```

Filled site:

```
TGTTCCCTGCTGCAGATAACAAGCCAGAGCCTGTCCCTTTGTTTCCTGTAAGGAATGCTTTTAGCTAATCTAT
AACCTATAGAAACAATGCTTATCACTGGCTTATTGTCAGTAAATAGGTGGGTCAAACCTCTGTTTGAGGCTCT
CAGCTCTGAAGGCTGTTAGCTCCCTGATTCCCCTTTGTAATCTATTTCTGTGTCTTTGTCTTAATTCCTCT
AACGCCGCTGGGTGGGGTCTCCATGACCAAGCTGGTCTTGGCAACGATACTAGCAAACCTGAATCCAGTAGC
ACATCAAAAAGTTAATTCACCGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAG
GCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCCGGCTAAAACGGTGAAACCCCGTCTCTACTAAAA
TACAAAAAATTAGCCGGGCGTAGTGGCGGGCGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGAAT
GGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGC... [NEOcassett
e] AAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAGTTAATTCACCATAATCATGTAAGCTTTATTCTAGGGACGCAACGTTGG
TTCAACATACAAAAAATAAACTAGGCCTAGTTTGTAGGAGTTTTTTATCATGAAGCA
```

LTR at the 5'; LINE-1 flanking the insertion site.

CLONE 92

[Brown Alu rescue MP#22, colored 26, C32b]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 68060762

Strand: plus

DR: AAGAGAAAGCATAAA

ENDOsites: TCTT/CA

Empty site:

```
TGCCCTTGACATGTGGGGATTATTACAATTCAAGGTGAGATTTGGGTGGGGACACAGAGCCAAACCATATCA
AGGGGGAATAAAGGCCCATGGCTAATTCAGAGGCCTGACCGTGAGAGAATGATGGCTGCCTCTCAAATTTT
GGCTCAGATTGAACAACCTCACCTTGACCTCTGACGCTGCAGGGTTGCTGCCAACACCCCTTGAGTGGCTTG
TTTCAACAGACATGGAAGGGACCAGAACCCTGCAGCCTGACTGCAGACAGGCCTGTCTGAGCTAGGATCA
GCTTTCTGTTATGGCAGAGGGAGAGCTTG ↑ AAGAGAAAGCATAAA ↓ CTAAGAAGCAGCCTCTGGGGTAAAAA
ATTTAGCAGTCTCTTACTGACAGGCCTAAACCAATCTGCTGGTTTAAACAACCTGTCAGCTTCTCTTGATAGAT
AT
```

Filled site:

```
TGCCCTTGACATGTGGGGATTATTACAATTCAAGGTGAGATTTGGGTGGGGACACAGAGCCAAACCATATCA
AGGGGGAATAAAGGCCCATGGCTAATTCAGAGGCCTGACCGTGAGAGAATGATGGCTGCCTCTCAAATTTT
GGCTCAGATTGAACAACCTCACCTTGACCTCTGACGCTGCAGGGTTGCTGCCAACACCCCTTGAGTGGCTTG
TTTCAACAGACATGGAAGGGACCAGAACCCTGCAGCCTGACTGCAGACAGGCCTGTCTGAGCTAGGATCA
GCTTTCTGTTATGGCAGAGGGAGAGCTTGAAGAGAAAGCATAAA GCCGGGCGGGTGGCTCACGCCTGTAAT
CCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCGAGACCATCCCGGCTAAAACGGT
GAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGTAGTGGCGGGCGCCTGTAGTCCCAGCTACT
TGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTG
CACTCCAG... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACACAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAGAAAGCATAAACTAAGAAGCAGCCTCTGGGGTAAAAAATTTAG
CAGTCTCTTACTGACAGGCCTAAACCAATCTGCTGGTTTAAACAACCTGTCAGCTTCTCTTGATAGATAT
```

LTR at the 5'.

CLONE 93

[Brown Alu rescue MP#27, colored 27]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 13

5' position: 37536966

Strand: plus

DR: GAGATGTGCT

ENDOsites: TCTC/AA

Empty site:

```
GGTTTCACCATTGTTGCCCATGCTGGTTTCAAATTCCTGGACTCAAGCAATCCACCTGCCTCAGCCTCCCAA
AGTGCTAGGATGACCACTGTAAGCCACCATCCCCAGCCACTAAGTGAGGTCAATCTTATGTCAATTAACACA
AAATAAATAAAAAGGCTTGCATGTAACATTAACACTAAAAAAGAAAAAACCCCATTAATGTTCTTTAACTT
AACCCACACAAGAAGCTGCTGTCTAATAACAACAGCCCCTCAGCACATGAGGATACTGAGCACTTGAAATGTGGC
TAGTCTGAATT↑GAGATGTGCT↓GTAAATTTGAATATATAGTACAAAGAAAATAATGTAAAATAGTTCAACT
TTTTTCATACTGATTGCATGGTGATATGACAATATCTTGAAATATATTGG
```

Filled site:

```
GGTTTCACCATTGTTGCCCATGCTGGTTTCAAATTCCTGGACTCAAGCAATCCACCTGCCTCAGCCTCCCAA
AGTGCTAGGATGACCACTGTAAGCCACCATCCCCAGCCACTAAGTGAGGTCAATCTTATGTCAATTAACACA
AAATAAATAAAAAGGCTTGCATGTAACATTAACACTAAAAAAGAAAAAACCCCATTAATGTTCTTTAACTT
AACCCACACAAGAAGCTGCTGTCTAATAACAACAGCCCCTCAGCACATGAGGATACTGAGCACTTGAAATGTGGC
TAGTCTGAATTGAGATGTGCTGGCCGGGCGGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAG
GCGGGCGGATCAGGAGGTGAGGATCGAGACCATCCCGGCTAAAACGGTGAAACCCCGTCTCTACTAAAAA
TACAAAAAATTAGCCGGGCGTAGTGGCGGGCGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGAAT
GGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAG... [NEOcassette
] AAAAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAGATGTGCTGTAAATTTG
AATATATAGTACAAAGAAAATAATGTAAAATAGTTCAACTTTTTTCATACTGATTGCATGGTGATATGACAA
TATCTTGAAATATATTGG
```

Alu at the 5'; hAT-Charlie DNA element flanking insertion site.

CLONE 94

[Green Alu rescue MP#13,15,17,18,29,30, colored 32]

Driver: ORF2

Plasmid: Alu Jo element; AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 189,651,214

Strand: minus

DR: AACAGGCTA

ENDOsites: TGTT/GA

Empty site:

```
TGTTTTCTATATGCCACACAGCTTGCAACATTCTGGGATAATACAAATTAATATAACATCCTGAGTTCTT
CATGTTAAAATGAATAAAATCCACAATAAACTGCAAGTTATATGAAGCAATTTTATGATACTGTTAGAGCTAC
ATTTTAAAATCCATAAAATTACAAGGTAGTTGACACTCATGAACATAGATGCAAAAATCCTCAAGATACTATT
AGCAAATGAAATGCAACAACCTACAAAAGAATTATACATCATGACCAAGTGGGATTTATTTAGGGATGCA
CGGCTATTTTCCAGCATTCACTAAATTAATTAATTTAATCCACCACATC↑AACAGGCTA↓AAAGCCTGGGCAAC
ATAGGAAGACCCTGTCTCTACAAAAAAGTTAAAAAAGTAGCTGGATACTGTGGCATGTCCCTGTAGT
CCCAGTTATTTGGGAGGCCGAGATGGGGGTGTTTCTTAAGCCAGGAGTTCTAGGCCGAGTGAAGTGTGAT
CACACCTGGACTCTAGCCTGGGTGACAGAATGAGACCTTGTC
```

Filled site:

```
TGTTTTCTATATGCCACACAGCTTGCAACATTCTGGGATAATACAAATTAATATAACATCCTGAGTTCTT
CATGTTAAAATGAATAAAATCCACAATAAACTGCAAGTTATATGAAGCAATTTTATGATACTGTTAGAGCTAC
ATTTTAAAATCCATAAAATTACAAGGTAGTTGACACTCATGAACATAGATGCAAAAATCCTCAAGATACTATT
AGCAAATGAAATGCAACAACCTACAAAAGAATTATACATCATGACCAAGTGGGATTTATTTAGGGATGCA
CGGCTATTTTCCAGCATTCACTAAATTAATTAATTTAATCCACCACATCAACAGGCTAGGCCGGGCGCGGTGGC
TCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGAGGATTGCTTGAGCCAGGAGTTTCGAGACCAG
CCTGGGCAACATAGCGAGACCCCGTCTCTACAAAAATACAAAATTAGCCGGGCGTGGTGGCGCGCGCCTG
TAGTCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAGCCAGGAGTTTCGAGGCTGCAGTGAGCTA
TGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGAC... [NEOcassette] AAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAACAGGCTAAAAGCCTGGGCAACATAGGAA
GACCCTGTCTCTACAAAAAAGTTAAAAAAGTAGCTGGATACTGTGGCATGTCCCTGTAGTCCCAGTT
ATTTGGG
```

LINE-1 flanking the insertion site; Alu at the 3'.

CLONE 95

[Green MP#85, 86, 93, colored 40]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 80,221,124

Strand: minus

DR: AAAGCAGGCTTCT

ENDOsites: CTTT/AC

Empty site:

```
CCATTGAGACTAAAGGGCCATAGCGTAGGAGCAATAGGCAGCTGGGCCGGAGTGGCCTCAGTGAGTCAATGC
AGGGATATTCAGTACTGAGCATGTAGCTTGGGCCAGGGACTGCTTAAAAGGAAGCTGCTGGGGGAACACCGACCA
TGGTCCTCAGCAGAGCAGGAAGCTGGGATCCCAGGAGCCATGGCAAGCTCCAGATGAGAAGTGAGTACAAAC
TTGCAGAACAGACAAAGAGTGAGGAAGTGGAGGCTAGGTCAAAAAGCGGAGAGT↑AAAGCAGGCTTCT↓GTC
CTTCAAGGCCAGCCCAGAAGACCCTATGCCAGTGATATAAGATCCTCATCACTCTGCCCCAGGAACAAC
GGTATGATCCATGAGCAGTCCTGGG
```

Filled site:

```
CCATTGAGACTAAAGGGCCATAGCGTAGGAGCAATAGGCAGCTGGGCCGGAGTGGCCTCAGTGAGTCAATGC
AGGGATATTCAGTACTGAGCATGTAGCTTGGGCCAGGGACTGCTTAAAAGGAAGCTGCTGGGGGAACACCGACCA
TGGTCCTCAGCAGAGCAGGAAGCTGGGATCCCAGGAGCCATGGCAAGCTCCAGATGAGAAGTGAGTACAAAC
TTGCAGAACAGACAAAGAGTGAGGAAGTGGAGGCTAGGTCAAAAAGCGGAGAGTAAAGCAGGCTTCTGGCCG
GGCGCGGTGGCTCACGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGAT
CGAGACCATCCCAGGCTAAAACGGTAAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGTAGTGG
CGGGCGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCTTG
CAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACGTCTC... [NEOcassette]
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGCAGGCTTCTGTCCTTCAAGGCCAGCCCAGAAGACC
CTATGCCAGTGATATAAGATCCTCATCACTCTGCCCCAGGAACAACGGTATGATCCATGAGCAGTCCTGG
G
```

No repetitive sequences in the immediate proximity.

CLONE 96

[Green Alu rescue MP#87 81 "Green 87," colored 16]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 133,685,841

Strand: minus

DR: AAGAGCTTCAGGAA

ENDOsites: TCTT/AA

Empty site:

```
TTGCCCACTTGAGTTTTTCAGCAAGTAATAAATAATTACAAAGCAACTTACAAGATAGGTATATGTGTCATA
GCTATTATTTATCTTTCTGCTTATCTCAAAGAAGAGATAGAGTTTTTCACAGTTTAGCAAAGACACAAACCA
TGTCTTTGTTAAGGAAACCTCATCAATTAATGAGTAATATTAATTATTGTAGGTGCAAAGAAACATTTGGTC
ATTCAGCAAGCATTATCTTAATTTATCATACGTAGTGCTTACCACATGCCAGATGTTGTTTT↑AAGAGCT
TCAGGAA↓TAATTCATTTAATTCTCCCTGTAACCTTATAAGATAATTGTATTATTGTAACCATTTTACAGGT
GGAGATACTGAGGCACAGAGGAGTTAACTAACTTATTCAAGTCCAGTTAGTTAATAAGTGGTAAAGCTGACA
TTGGATTCCCAAGTAGTCTGACCTCTTAAACACTATCTGTTCTATTTTCTACTATATTCAAAA
```

Filled site:

```
TTGCCCACTTGAGTTTTTCAGCAAGTAATAAATAATTACAAAGCAACTTACAAGATAGGTATATGTGTCATA
GCTATTATTTATCTTTCTGCTTATCTCAAAGAAGAGATAGAGTTTTTCACAGTTTAGCAAAGACACAAACCA
TGTCTTTGTTAAGGAAACCTCATCAATTAATGAGTAATATTAATTATTGTAGGTGCAAAGAAACATTTGGTC
ATTCAGCAAGCATTATCTTAATTTATCATACGTAGTGCTTACCACATGCCAGATGTTGTTTTAAGAGCTT
CAGGAAGGCCGGGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGA
GGTCAGGAGATCGAGACCATCCCGGCTAAAACGGTGAAACCCGCTCTCTACTAAAAATACAAAAAATTAGCC
GGCGTAGTGGCGGGCGCCTGTAGTCCAGCTACTTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGA
GGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAACTTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAGAGCTTCAGGAATAATTCATTTAATTCTCCCTGTA
ACCTTATAAGATAATTGTATTATTGTAACCATTTTACAGGTGGAGATACTGAGGCACAGAGGAGTTAACTAA
CTTAT
```

MIR flanking the insertion site.

CLONE 97

[Blue Alu rescue MP#25 Red36, colored 22]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 15646423

Strand: plus

DR: AATGAAAATGAACTTGC

ENDOsites: CAGTT/GA

Empty site:

```
GTAAATATAATATGGGGAAAATGGACATGGTAGAAATGAAAACACAAAATAAAACACAGACAGACAGACC
TGTGATTGGTAAATATTTGATAGGGTCCAGAAAACTTATGGATGAATCAAATCATAATTGTATAATTTGCC
TACAAAAGAAGCTGATCCAGATCAAATAATTTTCAGGAGACTAAAGTGAAAATGGAAACATTTGGAAATCTGT
TAAACAAGCTGGCTTAATGAACTTTGCTCTAGAAAATACCCTCTC↑AATGAAAATGAACTTGC↓TATGGTATA
TTTTTCTTTTAAATAGTTGTAGTCATGAACATGGAGTCAAATGCTCTCTGGGCTATCAATTTTTTCTCTAAA
CAAGGCTTTGGCTGCATTC
```

Filled site:

```
GTAAATATAATATGGGGAAAATGGACATGGTAGAAATGAAAACACAAAATAAAACACAGACAGACAGACC
TGTGATTGGTAAATATTTGATAGGGTCCAGAAAACTTATGGATGAATCAAATCATAATTGTATAATTTGCC
TACAAAAGAAGCTGATCCAGATCAAATAATTTTCAGGAGACTAAAGTGAAAATGGAAACATTTGGAAATCTGT
TAAACAAGCTGGCTTAATGAACTTTGCTCTAGAAAATACCCTCTCAATGAAAATGAACTTGCGGCCGGGCGCG
GTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGAC
CATCCCGGCTAAAACGGTGAACCCCGTCTCTACTAAAATACAAAAAATTAGCCGGGCGTAGTGGCGGGCG
CCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGA
GCCGAGATCCCGCCACTGCACTCCAG... [NEOcassette] AAAAAAAAAAAAAAAAAAAACATTACAAA
AAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGAAAATGAACTTGCTATGGTATATTTTTCTTTTAAATAGT
TGTAGTCATGAACATGGAGTCAAATGCTCTCTGGGCTATCAATTTTTTCTCTAAACAAGGCTTTGGCTGCAT
TC
```

No repetitive sequences in the immediate proximity.

CLONE 98

[Black Alu rescue MP#2, Black2, purple #7, colored 37]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 218,884,781

Strand: minus

DR: AAGTGACCT

ENDOsites: ACTT/GC

Empty site:

```
TATAACACAATGCTGATCATATAGTCAGAGTATAAATATATATATTAATTTTTTAATAAGTGAATGAACATA
TAACACAAGATGTTTACAAGATAAGATGCCTTTTAAGTATGGACTAAGTACTTTCAATTTTTTCTGCAATAC
TATATGGAAGTATTAGCCTCTTCGCACCTGTCTGCAGGCTACTGGAAGACCCACTAACTGGTTCATAGAAG
CGTCACAAGGTTTAGGACAATCCACAGGGATGGCTGTGGTGCCTTTCCACCTGCCAGTAGGCATATC
TGAGAGGGTTGTATGGTCCTATGACCAGGCTGAAGC ↑AAGTGACCT↓ ATGAGTGGCACCATGGATGACATGG
GAATGACAAAGCCCACAAGGAAGCCCCTGCTGTCACTCTTTCACCTTGCTGGGTTTCTAACTTTTCGAGATCT
GAG
```

Filled site:

```
TATAACACAATGCTGATCATATAGTCAGAGTATAAATATATATATTAATTTTTTAATAAGTGAATGAACATA
TAACACAAGATGTTTACAAGATAAGATGCCTTTTAAGTATGGACTAAGTACTTTCAATTTTTTCTGCAATAC
TATATGGAAGTATTAGCCTCTTCGCACCTGTCTGCAGGCTACTGGAAGACCCACTAACTGGTTCATAGAAG
CGTCACAAGGTTTAGGACAATCCACAGGGATGGCTGTGGTGCCTTTCCACCTGCCAGTAGGCATATC
TGAGAGGGTTGTATGGTCCTATGACCAGGCTGAAGCAAGTGACCT [noCleanAluSequenceRead] ...
[NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGTGA
CCTATGAGTGGCACCATGGATGACATGGGAATGACAAAGCCCACAAGGAAGCCCCTGCTGTCACTCTTTCAC
CTTGCTGGGTTTCTAACTTTTCGAGATCTGAG
```

No repetitive sequences in the immediate proximity.

CLONE 99

[Brown Alu rescue MP#21, colored 44]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 13131825

Strand: minus

DR: TAAAAGGCAGAATG

ENDOsites: TTTA/AT

Empty site:

```
TTGGGGCATTCTGGACACAGATGCAGTCCTGTTTTTCTGCACCCTTCCCCCAGTGCTTCAGCCTTTTCAG
GACAGATGCATACTGTCATTTGTGCTCTGAAGCCTCAGTATTCTGCATGGTGCCTGATCCAGAGCACCTGCC
AGGTATTTATTGAATCAGTCTGTTTCCATTTGAAAATGCCCATGGTAAGAAAAATGTAGATGCCACTGGAAT
CTGTTGTCTTCAAGGCCTTTTGGTTAAAAGGGACAGAAACCCATCAGCTAAAGCAGAAAAGGGAGATTTAT↑
TAAAAGGCAGAATG↓GGCTGGGTGGGGTGGCTCACGCCTGTAATCCCCTACTTTGGGAGTCCAAGGTGGAA
GGATCACTTGAGGTCAGGAGTTCTAGATCAGCCTGGCCAACAG
```

Filled site:

```
TTGGGGCATTCTGGACACAGATGCAGTCCTGTTTTTCTGCACCCTTCCCCCAGTGCTTCAGCCTTTTCAG
GACAGATGCATACTGTCATTTGTGCTCTGAAGCCTCAGTATTCTGCATGGTGCCTGATCCAGAGCACCTGCC
AGGTATTTATTGAATCAGTCTGTTTCCATTTGAAAATGCCCATGGTAAGAAAAATGTAGATGCCACTGGAAT
CTGTTGTCTTCAAGGCCTTTTGGTTAAAAGGGACAGAAACCCATCAGCTAAAGCAGAAAAGGGAGATTTATT
AAAAGGCAGAATGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGG
ATCACGAGGTCAGGAGATCGAGACCATCCCGGCTAAAACGGTGAACCCCGTCTCTACTAAAAATACAAAAA
ATTAGCCGGGCGTAGTGGCGGGCGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAA
CCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCAC... [NEOcassette] AAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATAAAAGGCAGAATGGGCTGGGTGGGGTGGCTCA
CGCCTGTAATCCCCTACTTTGGGAGTCCAAGGTGGAAGGATCACTTGAGGTCAGGAGTTCTAGATCAGCCT
GGCCAACAG
```

LTR at the 5'; Alu at the 3'.

CLONE 100

[L12]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 8

5' position: 121,131,336

Strand: plus

DR: AATATATTATATATT

ENDOsites: TATT/AT

Empty site:

```
AAATTAGCCAAGCATCGTGGCGGGCACCTGTAATCCGAGCTACTCAGGAGGCTGAGTCAGGAGAATGGCTGG
AACCTGGGCAGTGGAGGTTGCAGTAAGCCAAGATCGCGCCACTGCACTCCAGCCTGGATGACAGAGTGAGAC
TCTCTCTCTCTCTCTCTCTATATATATTATATATTATATATTATATATATTATATATTATATATTATATATT
ATATATTATATATTATATTATATATTATATATATTATATAATGTATTATATATTATATTTAATATATTATAT
TTTATATATATTATATTTAATATATTATATATTATATATTATATAACGTATTATATATTATATATAATAT
ATTATATATTACATATAATATATATATTATATATTATATATTATATAACGTATTATATATTATATATAATAT
GTTACTTAGAAGTATGGAAATTTTGAAGTCTCAAAAAAACTGCTAAGAGAGAAAAAAATACTTCTG
```

Filled site:

```
AAATTAGCCAAGCATCGTGGCGGGCACCTGTAATCCGAGCTACTCAGGAGGCTGAGTCAGGAGAATGGCTGG
AACCTGGGCAGTGGAGGTTGCAGTAAGCCAAGATCGCGCCACTGCACTCCAGCCTGGATGACAGAGTGAGAC
TCTCTCTCTCTCTCTCTCTATATATATTATATATTATATATTATATATATTATATATTATATATTATATATT
ATATATTATATATTATATTATATATTATATATATTATATAATGTATTATATATTATATTTAATATATTATAT
TTTATATATATTATATTTAATATATTATATATTATATATTATATAACGTATTATATATTATATATAATAT
ATTATATATTACATATAATATATAATATATTATATATTGGCCGGGCGGGTGGCTCACGCCTGTAATCCAG
CACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAAC
CCCGTCTCTACTAAAAAAAAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGC
TACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC
ACTGCACTCCA... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
ATATTATATATTACTGATTAATAGACACATGGCAGTACATGCGTGTTACTTAGAAGTATGGAAATTTTGAAG
GTCTCAAAAAAACTGCTAAGAGAGAAAAAAATACTTCTG
```

Alu at the 3'.

There are several differences relative to the reference sequence in the 3' low complexity region.

CLONE 101

[14, 16]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 73,813,205

Strand: plus

DR: AAAAAAAAAAAAAAAAAAAAAAAAAA

ENDOsites: TTTT/GA

Empty site:

```
AGAACTCTTGAAAAAGTTCTGGGATCTCACTTTGAGAAGCACTAGATTAAGTTTCCTATGGGTAATATTTCA
TTTGTTACATTAATAATCCCTTCTCCATTAATAATAATATCTCTGTAGGCTGGGTGCGGTGGCTCATGCCTGT
AACCCAAGAAGTTTGGGAGGCCGAGGTGAGCGGATCACCTGAGGTGCGGAGTTCGAGACCAGCTTGACCAAC
ATGGAGAAACCCCGTCTCTACTAAAAATACAAAATTAGCTGGGTGTGGTGACACATGTCTGTAATCCCAAC
TACTCGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAAGCAGAGGCTGCGGTGAACCGAGACTGCACT
ATTGCACTCCAGCCTGGGCAACAAGAGTGAAACTCTGTCTC↑AAAAAAAAAAAAAAAAAAAAAAAAA↓TTTATC
TCTGTTATACCAGCAGATAGAATTGCAAGACGAGCTCTGAAACCTACTTTAATTAATCATTACTGTTACCAA
TTATATAGATACTAATATATTT
```

Filled site:

```
AGAACTCTTGAAAAAGTTCTGGGATCTCACTTTGAGAAGCACTAGATTAAGTTTCCTATGGGTAATATTTCA
TTTGTTACATTAATAATCCCTTCTCCATTAATAATAATATCTCTGTAGGCTGGGTGCGGTGGCTCATGCCTGT
AACCCAAGAAGTTTGGGAGGCCGAGGTGAGCGGATCACCTGAGGTGCGGAGTTCGAGACCAGCTTGACCAAC
ATGGAGAAACCCCGTCTCTACTAAAAATACAAAATTAGCTGGGTGTGGTGACACATGTCTGTAATCCCAAC
TACTCGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAAGCAGAGGCTGCGGTGAACCGAGACTGCACT
ATTGCACTCCAGCCTGGGCAACAAGAGTGAAACTCTGTCTCAAAAAAAAAAAAAAAAAAAAAAAAAAGGCCGGGC
GCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGA
GACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATAACAAAATTAGCCGGGCGTGGTA
GCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTT
GCAGTGAGCCGAGATCCGCCACTGCACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTTATCTCTGTTATACCAGCAG
ATAGAATTGCAAGACGAGCTCTGAAACCTACTTTAATTAATCATTACTGTTACCAATTATATAGATACTAAT
ATATTT
```

Alu at the 5'.

CLONE 103

[N54, N16]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 99,590,784

Strand: minus

DR: AATAAAAAGCAAAGGA

ENDOsites: TATT/GC

Empty site:

```
TGGAGGTCATCTGATCCAAATGCCTCACTTTACAGAAGAACTGATGTCCACAGTGTGACTTGCCCCAGAGA
CACAGCTATGCAGAGGTAGGGCCAGGGCCCCCTGCATTCTTGGGCTACAGCTCACCAGTAGTTTTTCCTTAA
TTAGTGCTAGGAAGAGAGGAGAAACAGAAGCCCCAGAAAAAGCCTCAGTACTGTAGGTGTTAATTTAGATATA
AAATCCATTAATAAAAAGAAAGTAGAAAGGTTCAAAGTTCTTAAGTATAAGCATAATAAAAAGCAAAGGA
AGGAAGCATTGTGAAAATCAATACAATTTAATCAGGCTACAACAACAGAAGGGAGGTGATAAAGGGAGGAAA
GAGAAAATAAAAAATAAGTGTATTTA
```

Filled site:

```
TGGAGGTCATCTGATCCAAATGCCTCACTTTACAGAAGAACTGATGTCCACAGTGTGACTTGCCCCAGAGA
CACAGCTATGCAGAGGTAGGGCCAGGGCCCCCTGCATTCTTGGGCTACAGCTCACCAGTAGTTTTTCCTTAA
TTAGTGCTAGGAAGAGAGGAGAAACAGAAGCCCCAGAAAAAGCCTCAGTACTGTAGGTGTTAATTTAGATATA
AAATCCATTAATAAAAAGAAAGTAGAAAGGTTCAAAGTTCTTAAGTATAAGCAATAATAAAAAGCAAAGGA
GGCC
GGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGCGGGCGGATCACGAGGTCAAGGAGA
TCGAGACCATCCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAAAAAAAAAAAAATACAAAAATTAGCCGG
GCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGG
GCGAGCTTGCAGTGAGCCGAGATCCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAA
CATTACAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAATAAAAAGCAAAGGAT
AAGGAAGCATTGTGAAAATCAATACAATTTAATCAGGCTACAACAACAGAAGGGAGGTGATAAAGGGAGGAA
AGAGAAAATAAAAAATAAGTGTATTTA
```

MIRs at the 5'.

CLONE 105

[N36]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 110,701,857

Strand: plus

DR: AAAAAAAAAAAAAAAAAAGG

ENDOsites: TTTT/GA

Empty site:

```
AAAAGTCTGACAATTGACCGGCTGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGC
AGATCACTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACA
AAAATTAGGTGGGCTTGGTGGCGGTGCCTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATTGCTTG
AACCTGGGAGGCCGAGGTTGCAGTGAGCTGAGATTGCACCACGGCACTCCATCCTGGGCGTCAGAGTGAGAC
TCGGTCTC↑AAAAAAAAAAAAAAAAAGG↓AAAGGTAGTATGAATGTCTGGGCATTCATACCATTCTATCTTTAA
GGTAACAGAAATACTCCAATGGGGTTTCGGGAAGAGGAGTGGCTGAGTGAAAAA
```

Filled site:

```
AAAAGTCTGACAATTGACCGGCTGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGC
AGATCACTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACA
AAAATTAGGTGGGCTTGGTGGCGGTGCCTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATTGCTTG
AACCTGGGAGGCCGAGGTTGCAGTGAGCTGAGATTGCACCACGGCACTCCATCCTGGGCGTCAGAGTGAGAC
TCGGTCTCAAAAAAAAAAAAAAAAAAGGGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGC
CGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTA
AAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGC
AGGGGAATGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] AAA
AAAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAACAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAGGAAAGGTAGTATGAATGTCTGGGCATTCATACCATTCTATCTTTAAGGTAA
CAGAAATACTCCAATGGGGTTTCGGGAAGAGGAGTGGCTGAGTGAAAAA
```

Alu at the 5' of the insertion site.

CLONE 106

[M13]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 38,552,227

Strand: plus

DR: AATATTTTAAAGA

ENDOsites: TATT/AT

Empty site:

```
TTTGGGAGGCCGTGGTGGGCAGATCTCTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAAGATGGTGA AAC  
CCATCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGATGTGCCCCAACTACTTGGGAGGCTGAGGCA  
CGAGAATCGCTTGAATACGGGAGGCGGAGGTTGCTGTGAGCTGAGATCCTGCCATTGCACTCCAGCCTGGGT  
AACACAGCGAGACTCCATCTCAACAACAACAACAAAAAAATTTTATACATTTTTTTTTTCAATTTTAAGTGGA  
CATATGCATCAATATTTTATGCAT↑AATATTTTAAAGA↓GTATTACCTCTTTTTTTTTTTTGGAGATGGAGTT  
TTGCTCTGTTGGCCAGGCTGGAGTGCAGTGGTGTGACCTTGGCTCACTGCAACCTCTGCCTCCCGGG
```

Filled site:

```
TTTGGGAGGCCGTGGTGGGCAGATCTCTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAAGATGGTGA AAC  
CCATCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGATGTGCCCCAACTACTTGGGAGGCTGAGGCA  
CGAGAATCGCTTGAATACGGGAGGCGGAGGTTGCTGTGAGCTGAGATCCTGCCATTGCACTCCAGCCTGGGT  
AACACAGCGAGACTCCATCTCAACAACAACAACAAAAAAATTTTATACATTTTTTTTTTCAATTTTAAGTGGA  
CATATGCATCAATATTTTATGCATAATATTTTAAAGAGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGC  
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGA AAC  
CCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACT  
CGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTG  
CACTCCAGC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTTTTTAAGAGTATTACCTCTTTTTTTTTT  
TTGAGATGGAGTTTTGCTCTGTTGGCCAGGCTGGAGTGCAGTGGTGTGACCTTGGCTCACTGCAACCTCTGC  
CTCCCGGG
```

Alus at the 5' and 3'.

CLONE 107

[R28, R38]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 146,090,957

Strand: minus

DR: AAATTTTTTATTGTC

ENDOsites: ATTT/CT

Empty site:

```
CAATGATAGACTGGATTAAGAAAATGTGGCACATATACACCATGGAATACTATGCAGCCATAAAAAATGATG
AGTTCATGTCCTTTGTAGGGACATGGATGAAATTGGAAACCATCATTCTCTAG↑AAATTTTTTATTGTC↓GT
TTTTGTTTTTGAGAAAGAGTCTCACTCTGTCAACCCAGGCTGGAGTGCAGTGGTGCAATTTTCAGCTCACCACA
ATCTCTGCCTTCTGGGTTCAAGTGATTCCCTTGCCTCGGCCTCCCGAATAGCTGGGACTACAGGTGCATGCC
ACCATGCCAGCTAATTTTTATATTTTTAGTGGAGACGGGGTTTTTCCACGTTG
```

Filled site:

```
CAATGATAGACTGGATTAAGAAAATGTGGCACATATACACCATGGAATACTATGCAGCCATAAAAAATGATG
AGTTCATGTCCTTTGTAGGGACATGGATGAAATTGGAAACCATCATTCTCTAGAAATTTTTTATTGTCGGCC
GGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGA
TCGAGACCATCCTGGCTAACACGGTCAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCG
TGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGG
AGCTTGCAGTGAGCCGAGATCCC... [NEOcassette] AAAAAAAAAAAAAAAAAACATTACAAAAAA
AAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTTTTTATTGT
CGTTTTTGTTTTTGAGAAAGAGTCTCACTCTGTCAACCCAGGCTGGAGTGCAGTGGTGCAATTTTCAGCTCACC
ACAATCTCTGCCTTCTGGGTTCAAGTGAT
```

LINE-1 at the 5'; Alu at the 3'.

CLONE 108

[Brown MP#20, 24; Green MP#84, colored 14, C5, N8, colored 14]

Driver: ORF2

Plasmid: Alu rescue A70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 96,943,242 - 96,943,247

Strand: plus

DR: none

ENDOsites: n/a

Empty 5' site 96,943,077 - 96,943,247 plus strand:

```
GGTTGTTTGTGTTTTTTTCTTGTAATTTGTTTAAGTTCTTTGTAGATTCTGGATATTAGCCCTTTGTTGGATG
GGTACTATGCAAAAATTTTCTGCCATTCTATAGGTGGCCTGTTCACTCTGATGGTAGTTTCTTTTGTGTTGTC
AGAAGCTCTTTAGGTTAATTAG↑ATCCC↓
```

Empty 3' site 96,942,936 - 96,942,806 minus strand:

```
ATGAAGATCATTAAAAAGTCAGGAAACAACAGATGCTGGAGGGGATGTGGAGAAATAGGAACGCTTTTGCAC
TGTGTTGGTGGGAGTGTTAATTAGTTCAATCATTGTGGAAGGCAGTATGGTGATTCTCAA
```

Filled site:

```
GGTTGTTTGTGTTTTTTTCTTGTAATTTGTTTAAGTTCTTTGTAGATTCTGGATATTAGCCCTTTGTTGGATG
GGTACTATGCAAAAATTTTCTGCCATTCTATAGGTGGCCTGTTCACTCTGATGGTAGTTTCTTTTGTGTTGTC
AGAAGCTCTTTAGGTTAATTAGATCCCGGCTAAAACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATT
AGCCGGCGTAGTGGCGGGCGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCC
GGGAGGCGGAGCTTGCAGTGAGCCGAGATCCC GCC... [NEOcassette] AAAAAAAAAAATGATGAAGATC
ATTA AAAAGTCAGGAAACAACAGATGCTGGAGGGGATGTGGAGAAATAGGAACGCTTTTGC ACTGTTGGTGG
GAGTGTTAATTAGTTCAATCATTGTGGAAGGCAGTATGGTGATTCTCAA
```

LINE-1 sequence flanking both the 5' and 3' regions of the insertion site.

These 5 bases are identical between the vector and reference sequence.

Alu insert is truncated, missing between 85-89 5' bp.

This 3' sequence is 311 bp away and on the opposite strand relative to the 5' reference sequence position.

Clone 108 is problematic as all of the recovered flanking genomic sequence consists of repetitive sequence and L1. The sequences flanking either side of clone 108 are on opposite strands according to the best match obtained from the current reference genomic assembly. The best match to the 5' and 3' flank both map to separate but relatively nearby locations on chromosome 6. This would support that the insertion of clone 108 is associated with an inversion. Although the recovered clone was fully sequenced, all flanking sequence recovered contained L1 sequence. Thus, we were unable to determine if this insertion may have occurred during the Alu insertion event or if it represents an existing inversion in an unannotated L1 element (not present in the human reference sequence).

CLONE 109

[119, 125]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 44,970,630

Strand: minus

DR: AAAAAAAAAAAAAAGAAAAA

ENDOsites: TTTT/GA

Empty site:

```
CTGCTTTCTCAGTAAATGTTATTGAGCCAAATTGCTAGGCATCTGAGAAAATGTTTCTACTTCACACCACAT
ACCAAAATTAATCTAGGTTGATTAAAATTTTTAATGTAAAAGAAAACAGTTGGCAGGGCACAGTGGCTCGTC
TCTACTAAAAATACAAAAATTAGCCGGGCTTGGTGGCAATGCCTGTAATCCCAGCTACTCAAGAGGCTGAGG
CAGGAGAATTGCTTGAAGCCAGGAGGCGGAAGTTGTGTTTAGCCAAGATCGGCTCATCGCACTCCAGCCTGG
GCAACAAGGGCAAAACTCCGTCTC↑AAAAAAAAAAAAAGAAAAA↓GAAAAAGAAAACAGTTAAATAATAGAT
ATCTAAAACATCTTTATAAATGGAAGTTTTTTTTAAGCATAGAGCAGGGCATAAAATAGAAAAATGCATGTGT
G
```

Filled site:

```
CTGCTTTCTCAGTAAATGTTATTGAGCCAAATTGCTAGGCATCTGAGAAAATGTTTCTACTTCACACCACAT
ACCAAAATTAATCTAGGTTGATTAAAATTTTTAATGTAAAAGAAAACAGTTGGCAGGGCACAGTGGCTCGTC
TCTACTAAAAATACAAAAATTAGCCGGGCTTGGTGGCAATGCCTGTAATCCCAGCTACTCAAGAGGCTGAGG
CAGGAGAATTGCTTGAAGCCAGGAGGCGGAAGTTGTGTTTAGCCAAGATCGGCTCATCGCACTCCAGCCTGG
GCAACAAGGGCAAAACTCCGTCTCAAAAAAAAAAAAAGAAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAAT
CCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGT
GAAACCCCGTCTCTACTAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGC
TACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC
AC... [NEOcassette] AAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAGAAAAAGAAAAA
GAAAACAGTTAAATAATAGATATCTAAAACATCTTTATAAATGGAAGTTTTTTTTAAGCATAGAGCAGGGCAT
AAAATAGAAAAATGCATGTGTG
```

LINE-1 and Alu at the 5' of the insertion site.

CLONE 110

[Q13, R30]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 22

5' position: 31,879,121

Strand: plus

DR: AACAGAATAGCAGGTAC

ENDOsites: TGTT/AG

Empty site:

```
CAGAGCACTTTAGGAGGCCAAGGTGGGTGGATCATGAGATCAGGAGATCGAGACCATCCTGGCCAACATGGT
GAAACCCCATCTCTACTAAAATGTAAAAAAATTAGCTGGGCATGGAGGCACGCGCCTGTAGTCCCAGCTAC
TCAAGAGGCTGAGGTAGGGAAATTGCTTGAACCCGGGAGGCAGAGGTTGCAGTGAGCCGACATAGGGCCACT
GCACTCCAGCCTGGCGACAGACAGAGACTCTGTCTCAAACAAAAAACAGAAAAGAAAACCCACATGGATCT
GAATAGTGGGATGGCCTAAAACATTTCTATTTTGTATTTCAAGCAGAAGATGGCATCACT ↑ AACAGAATAGC
AGGTAC ↓ TATATTCCAGAAGTGGTGAACAAGGGCTTCTGGTGAAGAAAAGTTGAATGAGCACCCTGCCAG
GAGACGATCTTTTTTTTTTTTTTTTTTTTTTTTGGAGAACAGGGTCTCTTTTTTGTTCACAGGCTGTAGTGAAT
GGCGCGATGATGGCTCACTGCAGCCTCAAACGATTCTCTCACCTCAGTCCCCTGTGTAGCTGAG
```

Filled site:

```
CAGAGCACTTTAGGAGGCCAAGGTGGGTGGATCATGAGATCAGGAGATCGAGACCATCCTGGCCAACATGGT
GAAACCCCATCTCTACTAAAATGTAAAAAAATTAGCTGGGCATGGAGGCACGCGCCTGTAGTCCCAGCTAC
TCAAGAGGCTGAGGTAGGGAAATTGCTTGAACCCGGGAGGCAGAGGTTGCAGTGAGCCGACATAGGGCCACT
GCACTCCAGCCTGGCGACAGACAGAGACTCTGTCTCAAACAAAAAACAGAAAAGAAAACCCACATGGATCT
GAATAGTGGGATGGCCTAAAACATTTCTATTTTGTATTTCAAGCAGAAGATGGCATCACTAACAGAATAGCA
GGTAC GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAG
GTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAATTA
GCCGGGCGTGGTAGCGGGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCG
GGAGGCGGAGCTTGCAGTGAGCCGAGATCCC... [NEOcassette] AAAAAAAAAAAAAAAAAACATTAC
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAACAGAATAGCAGGTACTATATTCCAGAAGTGGTGAACAAGGGCTTCTGG
TGAAGAAAAGTTGAATGAGCACCCTGCCAGGAGACGATCTTTTTTTTTTTTTTTTTTTTTTTTGGAGA
```

Two different Alus on each side.

CLONE 119

[JK2,JK3,JK5,JK13,JK18,JK26, K8, K38, P54]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 20,058,768

Strand: plus

DR: AAGAAGAGAGAT

ENDOsites: TCTT/GA

Empty site:

```
TTATAATCCAGTTGGGGATAGCAGATATATAGAAATGATATAATCTGAACATGACATAAAAAAGAAGGTAATA
CAGGTAATCACAAGATCATGAACAATTAATGGCCAAATATATTATTTAAACAATAAGTGCTATGAAGGCAAC
ACAAGGAAGTGTCACTGAATTCTTAGTAATACAGAAAACAAAAAAAAAATTAAGAAAGAGTATGAGCTGGGC
ATATTACTGGTTGTTCAATGACTGCCTTTTTTGTAAAAAGGAGGAGAAAGAGAGAAAGTGGAAATGTATAG
TTATC↑AAGAAGAGAGAT↓AAGCAGAACCTCACTTGTTCCTTAACCAGGCTATGAGTATCTCTAGGGCAGA
GACAGTATTATATTCATAGCTCATTTACAAGTAGTTAGAAAGCATAT
```

Filled site:

```
TTATAATCCAGTTGGGGATAGCAGATATATAGAAATGATATAATCTGAACATGACATAAAAAAGAAGGTAATA
CAGGTAATCACAAGATCATGAACAATTAATGGCCAAATATATTATTTAAACAATAAGTGCTATGAAGGCAAC
ACAAGGAAGTGTCACTGAATTCTTAGTAATACAGAAAACAAAAAAAAAATTAAGAAAGAGTATGAGCTGGGC
ATATTACTGGTTGTTCAATGACTGCCTTTTTTGTAAAAAGGAGGAGAAAGAGAGAAAGTGGAAATGTATAG
TTATCAAGAAGAGAGATGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCACGAGGTGAGGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAA
AATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGA
ATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcas
sette]AAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAA
AAAAAAAAAAAAACACACAAAAAAAAAAAAAAAAAAAAAGAAGAGAGATAAGCAGAACCTCACTTG
TTCCCTTAACCAGGCTATGAGTATCTCTAGGGCAGAGACAGTATTATATTCATAGCTCATTTACAAGTAGTT
AGAAAGCATAT
```

LINE-1 at the 3'.

CLONE 121

[V1, V6, V9]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 9

5' position: 137,949,426

Strand: plus

DR: AAAAAATAAAAACA

ENDOsites: TTTT/AA

Empty site:

```
ACCCTAAACTTACCCAGAAAAAATGAGGAAGAACA AAAATGTCAATATCAGGAATAAAAGAATGAATGTGA
TTTCAGATCTTATAGATGTTAAAAAGATGAGGAATTATTATGAATAACAATTTGCAAACAAATTCATTGACA
TTAAAAATATAAGAGAATATCATGAACACCTTTATGCCAACAAATGTGACAACCTTTGTTAAAAGGAGGAAAA
GCCTTGAAAAATGCAACCTACCAAAATTTACATTATGTGAAAGAGAAAAATCTGAATATCTATATAGCTATTT
TAAAAATGTTTTTTT↑AAAAATAAAAACA↓AATTTGCGCAAGAAAATTTCAGGCCTGGATGGTTTTCACTTG
TGAATTCGGAGCACATTTCAAGAAGAAATAACACCGAATATACACAAACCCTTTTCAGAA
```

Filled site:

```
ACCCTAAACTTACCCAGAAAAAATGAGGAAGAACA AAAATGTCAATATCAGGAATAAAAGAATGAATGTGA
TTTCAGATCTTATAGATGTTAAAAAGATGAGGAATTATTATGAATAACAATTTGCAAACAAATTCATTGACA
TTAAAAATATAAGAGAATATCATGAACACCTTTATGCCAACAAATGTGACAACCTTTGTTAAAAGGAGGAAAA
GCCTTGAAAAATGCAACCTACCAAAATTTACATTATGTGAAAGAGAAAAATCTGAATATCTATATAGCTATTT
TAAAAATGTTTTTTTAAAAATAAAAACAGGCCGGGCGGGTGGCTCAGCCTGTAATCCAGCACTTTGGG
AGGCCGAGGCGGGCGGATCAGGAGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCT
ACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTG
AGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCC
TG... [NEOcassette] AAAAAAAAAAACTAAAAAAAAAATACAAAAAAAAAAAAAAAAAAAAAAAAA
TAAAAAAC
AAATTTGCGCAAGAAAATTTGAGGCCTGGATGGTTTTCACTTGTGAATTCGGAGCACATTTCAAGAAGAAATA
ACACCGAATATACACAAACCCTTTTCAGAA
```

LINE-1 flanking the insertion site.

CLONE 122

[V10]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 15

5' position: 35,143,814

Strand: minus

DR: AAGAATATTTAACAC

ENDOsites: TCTT/AT

Empty site:

```
ACATTTTAATTTTACTCCAGAATTTTACACTAAGTTTTTCTTCTCATTCTTATGCAGTAAAAGAAGAGT
TTGTATTTCCAATGTGTCTGGCTTTCTGTTCTTTAGTTTTTGTTCCTTAAAAAGTTTAAACTCCAAAAAGA
GAAAAGGATTACTTAGCATAACCAATAGAGGTGGTCTGGAAATAATAAAAGAAAATGAAGGCAAATATAAAA
CATGAAGACAGTTTCTCGCAT↑AAGAATATTTAACAC↓ACAAGGACCCCAGCAGTTACTTTGCATTAAGCA
TACTGAATTCTTTCTTGATCTCCAGAATAACTGTCCCCACAATCCTCTTCCCCTCTACCTTTGATTT
```

Filled site:

```
ACATTTTAATTTTACTCCAGAATTTTACACTAAGTTTTTCTTCTCATTCTTATGCAGTAAAAGAAGAGT
TTGTATTTCCAATGTGTCTGGCTTTCTGTTCTTTAGTTTTTGTTCCTTAAAAAGTTTAAACTCCAAAAAGA
GAAAAGGATTACTTAGCATAACCAATAGAGGTGGTCTGGAAATAATAAAAGAAAATGAAGGCAAATATAAAA
CATGAAGACAGTTTCTCGCATAAGAATATTTAACACGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAACC
CCGTCTTACTAAAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACT... [
NEOcassette] AAAAAAAAAAACTAAAAAAAAAATACAAAAAAAAAAAAATTAAAAAAAAAAAA
AAAAAAAAAAAAAGAATATTTAACACACAAGGACCCCAGCAGTTACTTTGCATTAAGCATACTGAATTCTT
TCTTGATCTCCAGAATAACTGTCCCCACAATCCTCTTCCCCTCTACCTTTGATTT
```

No repetitive sequences in the immediate proximity.

CLONE 123

[W1]

Driver: ORF2

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 10

5' position: 46,986,668

Strand: minus

DR: AGAAATCAGCCATCAT

ENDOsites: TTCT/GC

Empty site:

```
TCAGACCTAAAAAAAAAACTATTGCTTGTTAAAACTCCATATTTGATAGCTTGATTCTTATATCTTGAAA
GATTTTTAAAGTAGAGTGTAATATAACTGATGTTATGAAATTCTGTTTCATGTTCTGTAGAGCAGTTATAT
ATCATAATGTAGGCAGAAATCAGCCATCATATCATATCATATCATATCATATCATATCATATCATATCACAT
CATAATGTAGGCAGAAATCCGCCATCATATAATTGTGAGCAGAAATCAGCCATCATATGAGCAGCAGCAGCAG
AAAAATACCTAATTGGATTCTGTAAATGGGTATATTTTGAATTATGCTGTACAGTGCTTGCCCAAAAAATA
CTGTGCCTGAAAAAT
```

Filled site:

```
TCAGACCTAAAAAAAAAACTATTGCTTGTTAAAACTCCATATTTGATAGCTTGATTCTTATATCTTGAAA
GATTTTTAAAGTAGAGTGTAATATAACTGATGTTATGAAATTCTGTTTCATGTTCTGTAGAGCAGTTATAT
ATCATAATGTAGGCAGAAATCAGCCATCATATCATATCATATCATATCATATCATATCATATCATATCACAT
CATAATGTAGGCAGAAATCCGCCATCATATAATTGTGAGCAGAAATCAGCCATCATATGGCCGGGCGGGTGGC
TCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCC
TGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGC
GCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTG
AGCCGAGATCCGCCACT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG
AATCAGCCATCATATAATTGTGAGCAGAAAAATACCTAATTGGATTCTGTAAATGGGTATATTTGAATTAT
GCTGTACAGTGCTTGCCCAAAAAATACTGTGCCTGAAAAAT
```

No repetitive sequences in the immediate proximity.

CLONE 124

[X5, X6, X7]

Driver: ORF2

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 15

5' position: 31,259,673

Strand: plus

DR: AA~~ACTCAGTATTCT~~

ENDOsites: GTTT/CT

Empty site:

```
ACAATGGGGCTAACAGGAGACACGGCTCTTTGTTTTTCTCTATCAAGATATTTTTAAAAATTGTTTATTAAA
ATTACATTTGTACGAAACAGAATGTACAGAATTGCATGATCATCTGGAATCTTCCCTGGTCATGTCATGACT
GTCAGATATATAGACAAAACACTATTTACTTTTACAAAAGCTGTCTAGAATATACTTGTCTTGGAAAAATGCT
CATCTTCCTTTCATCAGTATTACTCAGAAATAG↑AAACTCAGTATTCT↓GAGAATCTTAATGAAGTCCACAA
AAAGTTTTTAATCACTTTAGCTTTTGCATGAAATCACACCTTGCCAGAAAAGATTATGCTTTTAATATATCT
TTTTAG
```

Filled site:

```
ACAATGGGGCTAACAGGAGACACGGCTCTTTGTTTTTCTCTATCAAGATATTTTTAAAAATTGTTTATTAAA
ATTACATTTGTACGAAACAGAATGTACAGAATTGCATGATCATCTGGAATCTTCCCTGGTCATGTCATGACT
GTCAGATATATAGACAAAACACTATTTACTTTTACAAAAGCTGTCTAGAATATACTTGTCTTGGAAAAATGCT
CATCTTCCTTTCATCAGTATTACTCAGAAATAGAAAACTCAGTATTCTGGCCGGGCGCGGTGGCTCACGCCTG
TAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTACA
CGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCC
CAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCC
CGCCACTGCACTCCAGCCTG... [NEOcassette] AAAAAAAAAACTAAAAAAAAAAAAATACAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACTCAGTATTCTGAGAATCTTAATGAAGTCCAC
AAAAAGTTTTTAATCACTTTAGCTTTTGCATGAAATCACACCTTGCCAGAAAAGATTATGCTTTTAATATAT
CTTTTAG
```

No repetitive sequences in the immediate proximity.

CLONE 125

[X1]

Driver: ORF2

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 10

5' position: 121,635,083

Strand: plus

DR: AAGAAATGGGAGCCTTC

ENDOsites: TCTT/GT

Empty site:

```
TTCATGGCCAGTAACAGGCAAATTAATGTATGATATGGAAATGTCTGCTCTTAAATCCCTGTAAATTCAAA
TTTACTTTATCTAAATTGCAGCTTGATACCAATTCAGCAGTGGCTAGTGTAAGGGAGGAAAAATATCTTTTC
CGTCTACCCTTCTAGATTCTACGTTGGACCCCCTGTAACAAAAGATAGATTAACAAGAGAAAAGCATGCACT
TTATTTTCATACACGTTTTAC ↑AAGAAATGGGAGCCTTC↓ATAAGGAAATGAAGATCCAAAGAAGCGTTAAAA
CCAAGTGTTTTTATGCTAGGTTTGATGAAGAGAGTCATAGAAGAATGTGATAGGACAAAGGTTGTGA
```

Filled site:

```
TTCATGGCCAGTAACAGGCAAATTAATGTATGATATGGAAATGTCTGCTCTTAAATCCCTGTAAATTCAAA
TTTACTTTATCTAAATTGCAGCTTGATACCAATTCAGCAGTGGCTAGTGTAAGGGAGGAAAAATATCTTTTC
CGTCTACCCTTCTAGATTCTACGTTGGACCCCCTGTAACAAAAGATAGATTAACAAGAGAAAAGCATGCACT
TTATTTTCATACACGTTTTACAAGAAATGGGAGCCTTCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACC
CCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC
ACTCCAGCCTG... [NEOcassette] AAAAAAAAAAACTAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAGAAATGGGAGCCTTCATAAGGAAATGAAGATCCAAAGAAGCGTTAAAACCAAGTGTTTTATGCTA
GGTTTGATGAAGAGAGTCATAGAAGAATGTGATAGGACAAAGGTTGTGA
```

LTR flanking the insertion site.

CLONE 126

[X4, X15, X16]

Driver: ORF2

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 1

5' position: 145,825,741

Strand: minus

DR: AAAAATTGTTT

ENDOsites: TTTT/GA

Empty site:

```
TGGCCAATATTTGTGAAGCTCAGACTGCCTGTTGACCTTCTTCCCCCATCTTTCCAATAAAGATTTTGTGT
GTGTGTGGTTGTTTTACTTGTTCTTTCTCTCAAACGGCAAATAACAGAAGCAGTTACCTTTGGGGGCTTAA
AGTGAATAAATTTGTGTTCTTTGATTCCGTTTTTGTATTGCTTCATCCTAATACTCGTCTCCGTAGAGCGG
AGCATTGTCCTTTTCTCTTC ↑AAAACTTGTTT↓ ACAATATTTAAGAAAATAAGAAAGAAGGAAAAGCCATC
CATAATCCTACCACTCTAATGCAATAGTTTTTTTCATTTTTTAAATTTACCACCTTTTCTATA
```

Filled site:

```
TGGCCAATATTTGTGAAGCTCAGACTGCCTGTTGACCTTCTTCCCCCATCTTTCCAATAAAGATTTTGTGT
GTGTGTGGTTGTTTTACTTGTTCTTTCTCTCAAACGGCAAATAACAGAAGCAGTTACCTTTGGGGGCTTAA
AGTGAATAAATTTGTGTTCTTTGATTCCGTTTTTGTATTGCTTCATCCTAATACTCGTCTCCGTAGAGCGG
AGCATTGTCCTTTTCTCTTCAAAAATTGTTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTT
GGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTC
TCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAG
GCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC
AGCCTG... [NEOcassette] AAAAAAAAAAATAAAAAAAAAAAAAAAAAAACA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACTTGTTTACAATATTTAAGAAAATAAGAAAGAAG
GAAAAGCCATCCATAATCCTACCACTCTAATGCAATAGTTTTTTTCATTTTTTAAATTTACCACCTTTTCTAT
A
```

No repetitive sequences in the immediate proximity.

CLONE 127

[Y2, Y12, Y16]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 16

5' position: 88,733,379

Strand: minus

DR: AAAAAAAAAAAAAAAAAA

ENDOfsite: TTTT/AA

Empty site:

```
TTTTTTTTGTAGGCTGGATGCGGTGGCTCATGTCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGTGGATC
ACGAGGTCAGGAGATCGAGACCATGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATACAA
AAAAATTAGCTGGGTGTGGTGGTACACACCTGGAGTCCCACTACTTTGGGAGGCTGAGGCAGGAGAATCACT
TGAGCCTGGGAGGCGGAGGTTGCAGTGAGCCTGGGAGGCGGACGTTGCAGTGAGCCTGGGAGGCGGAGGTTG
CAGTGAGCCGAGATTGCACCACTGCACTCCAGCCTGGGCAATGGAACAAGACTGTGTCTT↑AAAAAAAAAA
AAAAAA↓AAATTTTTTTTTTTGTGGATATGGTGGAGTCTCGCTATGTTGCCAGACTGGTCTTGAATCCAGG
CCTCAAGCAGTCCTCCCAAATCCCAAAGTGCTGCTGGGCTTACAGGCATGGACCACCATGCTTGGCCTATTT
TCGACACACATACAGGCTGAGGTTTCAGGAGAGCTGGGCTACAGGCCTCAGGGTGGGGATCGAT
```

Filled site:

```
TTTTTTTTGTAGGCTGGATGCGGTGGCTCATGTCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGTGGATC
ACGAGGTCAGGAGATCGAGACCATGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATACAA
AAAAATTAGCTGGGTGTGGTGGTACACACCTGGAGTCCCACTACTTTGGGAGGCTGAGGCAGGAGAATCACT
TGAGCCTGGGAGGCGGAGGTTGCAGTGAGCCTGGGAGGCGGACGTTGCAGTGAGCCTGGGAGGCGGAGGTTG
CAGTGAGCCGAGATTGCACCACTGCACTCCAGCCTGGGCAATGGAACAAGACTGTGTCTTAAAAAAAAAAAA
AAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAG
GTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAAATACAAAAATT
AGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCC
GGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCTG... [NEOcassette] AAAAA
AAAAAAAAAACTAAAAAAAAAATACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAATTTTTTTTTTTGTGGATATGGTGGAGTCTCGCTATGTTGCCAGACTGGTC
TTGAATCCAGGCCTCAAGCAGTCCTCCCAAATCCCAAAGTGCTGCT
```

Alu FLAMC at the 3' of the insertion site and two Alus at the 5' the insertion site.

CLONE 128

[Y11, Y20]

Driver: L1

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 7

5' position: 123,903,007

Strand: plus

DR: AAAAATGATAGTA

ENDOsites: TTTT/AA

Empty site:

```
AAAGGTGCTGTGACATCATAAACCTTGCAATAAGAAGGATAGTATTGAAATTTTAAAGTTTTTGTTCCTTTTA
TTTCATTAATCCCCTATAATACAATATTATTCACATTTTTACTTGGAAAAAAGGAATCTGAAAGTTAAATGT
CCACAGGATCGGTTTTTCAGATGATATGAGTTTTTCAGTTAATGTACTAACCTCAATTATGAAGGTTTATTAT
TATTATTATTGCTGCTAAAGTTAGAATAAAAAGAAAAGCTAAATTTTTCGACACAGAGGAGGGGAAAAAAGGTG
TTTCAAAAAGTTTCATT↑AAAAATGATAGTA↓ATGTTCTTTTAAATTTTAAAAACAAAAGCAGCATGG
CATTTGGAAACAAAAGGCAATATTGATGATATTACAATCTGCCTTAGATATTTGGCAGAC
```

Filled site:

```
AAAGGTGCTGTGACATCATAAACCTTGCAATAAGAAGGATAGTATTGAAATTTTAAAGTTTTTGTTCCTTTTA
TTTCATTAATCCCCTATAATACAATATTATTCACATTTTTACTTGGAAAAAAGGAATCTGAAAGTTAAATGT
CCACAGGATCGGTTTTTCAGATGATATGAGTTTTTCAGTTAATGTACTAACCTCAATTATGAAGGTTTATTAT
TATTATTATTGCTGCTAAAGTTAGAATAAAAAGAAAAGCTAAATTTTTCGACACAGAGGAGGGGAAAAAAGGTG
TTTCAAAAAGTTTCATTAAAAATGATAGTAGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTTGG
GAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTC
TACTAAAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCT
GAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGC
CT... [NEOcassette] AAAAAAAAAAACTAAAAAAAAAAAAAAAAAAAAAAAAAATACAAAAAAAAAAAA
AAAAATGATAGTAATGTTCTTTTAAATTTTAAAAACAAAAGCAGCATGGCATTGGAAACAAAAGGCA
ATATTGATGATATTACAATCTGCCTTAGATATTTGGCAGAC
```

No repetitive sequences in the immediate proximity.

CLONE 129

[Z1]

Driver: ORF2

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 18

5' position: 54,213,642

Strand: plus

DR: AAAACAGCAAAAG

ENDOsites: TTTT/AA

Empty site:

```
AAAATTCTGATGAACAAAAATTTAGCAAATACCTCTTCATAGATATATAACATAGATATCTATTTACAAATA
TATAGTATGTGCAAAATTTTAAACTAGCATACTTTGGACTCAGTAATTCCTTATGGAAATTTAAACTACA
AATATACCACATATGTACAAAATTAGATATCTAAGTAGATACTCACTGCAACATGGTTT↑AAAACAGCAAAA
G↓ACTGGAAACCACTTAAGAAAGCCATCCATGGGGCCCCGTAATAATAAATTTAAAGAATTTATTTAGATAA
TATGCTTTTGAACCAATCCAATATAACTT
```

Filled site:

```
AAAATTCTGATGAACAAAAATTTAGCAAATACCTCTTCATAGATATATAACATAGATATCTATTTACAAATA
TATAGTATGTGCAAAATTTTAAACTAGCATACTTTGGACTCAGTAATTCCTTATGGAAATTTAAACTACA
AATATACCACATATGTACAAAATTAGATATCTAAGTAGATACTCACTGCAACATGGTTTAAAACAGCAAAAG
GGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAG
GAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCG
GGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGGAG
GCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcassette] AAAAAAAAAA
AAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAACAGCAAAAGACTGGAAACCACTTAAGAAAGCCATCCATGGGGCCCCGTAATAA
TAAATTTAAAGAATTTATTTAGATAATATGCTTTTGAACCAATCCAATATAACTT
```

LINE-1 flanking the insertion site.

CLONE 130

[BB4]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 212,590,765

Strand: plus

DR: AGAAAAGCCGCAAACCTC

ENDOsites: TTCT/AA

Empty site:

```
TGAGCCAAGATCACACCATTGCACTCCAGCCTGGGCGACAATAGCAAAATTCTGTCTCAAAAAAAAAAATTG
CTTAAAATGTTTTTCAGATCACAAATTCCAGTGAAACAGCTGACACCAACAAGTTTGAAGACACCAACAGAG
GAATGGAATCAGCATGAGAATACAGCTGCTTCTCTCTGTCCAATGATTTACCCCTGTTCCCTTTGGCCAA
TCAGCAGTCTCCACACTTCAGCCTACTCCTTAAAAACCCCTT↑AGAAAAGCCGCAAACCTC↓CTTGAGAGAGGG
TTTGAGGTTCCCCTCCATCTCCTCGATTGGAGGCCCTATTGGTAAGCCTCTTTTTCTACTGCAACTCCGTCT
TGGCATATTGACTTGC
```

Filled site:

```
TGAGCCAAGATCACACCATTGCACTCCAGCCTGGGCGACAATAGCAAAATTCTGTCTCAAAAAAAAAAATTG
CTTAAAATGTTTTTCAGATCACAAATTCCAGTGAAACAGCTGACACCAACAAGTTTGAAGACACCAACAGAG
GAATGGAATCAGCATGAGAATACAGCTGCTTCTCTCTGTCCAATGATTTACCCCTGTTCCCTTTGGCCAA
TCAGCAGTCTCCACACTTCAGCCTACTCCTTAAAAACCCCTTAGAAAAGCCGCAAACCTCGGCCGGGCGGGTG
GCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCAT
CCTGGCTAACACGGTGAAACCCGTCTCTACTAAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGC
GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTG
AGCCGAGATCCCGCCACTGCACTCCA.. [NEOcassette] AAAAAAAAAAAAAAAAAAATTACAAAA
AAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAGCCGCAAACCTCCTTGAGA
GAGGTTTTGAGGTTCCCCTCCATCTCCTCGATTGGAGGCCCTATTGGTAAGCCTCTTTTTCTACTGCAACTC
CGTCTTGGCATATTGACTTGC
```

Alu at the 5'; LTR flanking the insertion site.

CLONE 131

[CC2]

Driver: L1

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 156,439,894

Strand: plus

DR: undetermined

ENDOfsite: undetermined

Empty site:

```
ATCATGTGTAGGTATCACTTTCATAACAATTTAAAAAATAAAAAAGATGGAAACAGATAAGTAGAGAAGGTC
TATGTCTTGGCCTCATGCCCAAGGGGCAGAGGGGCTGCAAGGGTACCATGCCGGGAGCACAGCTGGCCAAGG
TTCCAGCAGATCTCCCCATGAGGGGGTGTTCATTACGTCAATAAATGTCTACCTTAAAGAAGAACTG↑↓AT
GGTTGCACTGTACAGAATAAATAGAATCACTGAATGTTTCATGATTTACACAGCACTATTGTTTCATGCTG
TATCCTGTTTTGGGACAGTTTAGAAAA
```

Filled site:

```
ATCATGTGTAGGTATCACTTTCATAACAATTTAAAAAATAAAAAAGATGGAAACAGATAAGTAGAGAAGGTC
TATGTCTTGGCCTCATGCCCAAGGGGCAGAGGGGCTGCAAGGGTACCATGCCGGGAGCACAGCTGGCCAAGG
TTCCAGCAGATCTCCCCATGAGGGGGTGTTCATTACGTCAATAAATGTCTACCTTAAAGAAGAACTGGGCC
GGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGA
TCGAGACCATCCTGGCTAACACGGTCAAACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGT
GGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGGAGGCGGA
GCTTGCACTGAGCCGAGATCCCGCCACTGCACTCCA... [NEOcassette] AAAAAAAAAAAAAAAAAA
AAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAA [DR?] [No3' SequenceReads]
```

No repetitive sequences in the immediate proximity.

There are no sequence reads 3' of the A-tail.

CLONE 132

[CC3]

Driver: L1

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 173,162,876

Strand: minus

DR: AAGAAGGAGAAATCA

ENDOsites: TCTT/AA

Empty site:

```
TTTTCATTCAACTTTTATTAATAATCTGAATGAAGATTTTAAAAATGCTAATCTATTTTGTGATAATGTACA
GCTGAGAGGTGCAGCCAAACTGTTAAAAGATAAAAATACAGTGTCAATAAATTCTCACAAAATATAAACTAG
TTAAATGAACTATAATGGTATTACACATAGAAAATATAAGAAAAACAATAATGTTTAAATATGACTACGTTA
GTGGCTACTCAT↑AAGAAGGAGAAATCA↓GAGTTAATTGGATAAAAAGCATAACTCTTAACTGATGTTAGCAT
ATGCCTTAATGCCTTAACATTTGGTTTACCTCTCTTTGGAAGCCTTCCTGGTCCTGC
```

Filled site:

```
TTTTCATTCAACTTTTATTAATAATCTGAATGAAGATTTTAAAAATGCTAATCTATTTTGTGATAATGTACA
GCTGAGAGGTGCAGCCAAACTGTTAAAAGATAAAAATACAGTGTCAATAAATTCTCACAAAATATAAACTAG
TTAAATGAACTATAATGGTATTACACATAGAAAATATAAGAAAAACAATAATGTTTAAATATGACTACGTTA
GTGGCTACTCATAAGAAGGAGAAATCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAG
GCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTAC
TAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAG
GCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCA... [NEO
cassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAGAAGGAGAAATCAGAGTTAATTGGATAAAAAGCATAACTCTTAACTGATGTTAGCATATGCCTTAATGCCT
TAACATTTGGTTTACCTCTCTTTGGAAGCCTTCCTGGTCCTGC
```

L3/CR1 at the 5'.

CLONE 133

[Alurescue2,6,7,10, Black-MP#1 and #12, colored 33]

Driver: L1

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 145,551,973

Strand: plus

DR: AGAAATACTATAAAAAAT

ENDOsites: TTCT/TT

Empty site:

TAGCTGTGTAGGCTTTCAATTCTGTGAATTTATAATGTCTTCCATATTTTATTGTTTACATAGTTAAGGTAT
TATACTTCCTTATAACATTTACATAGAGTTGAGATACAAATAAGTTAATTTAATTGATGTAATCATTAAATTA
CTGAATCATCTCAGTTGTGATCGTTCTGTTTTATGAGGTAATTTACGATGTAGAGACTGTTTTCCATTATT
TTATAATTAAGTACCATTTCTGCACACCCTCTCCTCCCATTAGCTCACCGTTGAAATTCATGGAAGGAAAA
TGTATTAATAAATTACACCACTTGCAGCTGATTCAGGTATTACAGAAAATTGACGCTTACTAA↑**AGAAATAC**
TATAAAAAAT↓AACAGTTAAGCCATTACCACTAAATAAAGCTATGCTTTAACTGAGTTTGGTTTGACAAGATG
CAATTCCAAGAGACATAACTTTTCAGGCATCATAAGAAA

Filled site:

TAGCTGTGTAGGCTTTCAATTCTGTGAATTTATAATGTCTTCCATATTTTATTGTTTACATAGTTAAGGTAT
TATACTTCCTTATAACATTTACATAGAGTTGAGATACAAATAAGTTAATTTAATTGATGTAATCATTAAATTA
CTGAATCATCTCAGTTGTGATCGTTCTGTTTTATGAGGTAATTTACGATGTAGAGACTGTTTTCCATTATT
TTATAATTAAGTACCATTTCTGCACACCCTCTCCTCCCATTAGCTCACCGTTGAAATTCATGGAAGGAAAA
TGTATTAATAAATTACACCACTTGCAGCTGATTCAGGTATTACAGAAAATTGACGCTTACTAAAGAAATACT
ATAAAAAATGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCAC
GAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAA
ATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAA
CCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCCACT... [NEOcassette] AAAAAAAAAAAAAA
AA
AAAAAAAAAAAAACATTACAA
AAAAAAAAAAGAAAAAAAAAAGAGAAATACTATAAAAAATAACAGTTAAGCCATTACCACTAAATAAAGCTAT
GCTTTAACTGAGTTTGGTTTGACAAGATGCAATTCCAAGAGACATAACTTTTCAGGCATCATAAGAAA

No repetitive sequences in the immediate proximity.

CLONE 134

[Alurescue4,8,9, colored 35]

Driver: L1

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 123,311,449

Strand: minus

DR: AAAAATTATAAATGCA

ENDOsites: TTTT/AA

Empty site:

```
ATGACATTCTGGAAAAAGCAAGACTGTAGAGACAGTAAAAAATCAATGGTTACTATGGGTGTGGGAGGAGG
CTGGTTTGGGATGAATAGGTAAAGCACAGATTTTTAGGGCAGTGAAACTATTATGTACAATGTGCCATGACA
GATACATGGTATTATATATTCATAAAAAATTCATATAGGCAAGGAACAAGGGATTATTA AAAATGACCAGACA
GATTTGAAAGGTTTATGTATTGTTTAGGAAGATGATAAAGTACTGATTAATATTAGACTTTAATGAGTTAAT
GATCCATGCTGTAATTTCTATGGTAACCGTAAAGAGAAGCAAGATGTACAAATTCAGTAAGTAGAG
GGGAAGAATAAGTGATATTTT ↑ AAAAATTATAAATGCA ↓ AAAAAGGAGTGATACGGTTTAGCTGTGTGTCT
CCAACCAAATCTCATCTCAAATTGTAATCATCACGTGTTGAGGGAGGGACTGGTGGGAGGTGATTGGA
```

Filled site:

```
ATGACATTCTGGAAAAAGCAAGACTGTAGAGACAGTAAAAAATCAATGGTTACTATGGGTGTGGGAGGAGG
CTGGTTTGGGATGAATAGGTAAAGCACAGATTTTTAGGGCAGTGAAACTATTATGTACAATGTGCCATGACA
GATACATGGTATTATATATTCATAAAAAATTCATATAGGCAAGGAACAAGGGATTATTA AAAATGACCAGACA
GATTTGAAAGGTTTATGTATTGTTTAGGAAGATGATAAAGTACTGATTAATATTAGACTTTAATGAGTTAAT
GATCCATGCTGTAATTTCTATGGTAACCGTAAAGAGAAGCAAGATGTACAAATTCAGTAAGTAGAG
GGGAAGAATAAGTGATATTTT AAAAATTATAAATGCA GGCCGGGCGGGTGGCTCACGCCTGTAATCCCAG
CACCTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAAC
CCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACT
CGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTG
CACTCCA... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAATTATAAATGCAAAAAAGGAGTGATACGGTTTAGCTGTGTGTCTCCAACCAAATCTCATCTC
AAATTGTAATCATCACGTGTTGAGGGAGGGACTGGTGGGAGGTGATTGGA
```

LINE-1 flanking the insertion site; LTR at the 3'.

CLONE 135

[Black Alu rescue MP#1, purple MP#6 and purple MP#9 colored 36]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 151,058,540

Strand: plus

DR: undetermined

ENDOfsite: undetermined

Empty site:

```
GTTTCACTCTGCCACCCAGGCTGTGCAGTGGTGCAGTCATAGCTCACTGCAGCCTTGAGCTCCTGGGCTCAA  
GGGATCCTCCCACCTCAGCTTCCCAACTCATTGAGACTATGCGTGGGCCACCATGCCAGTCTATTTATTAT  
CCTTTAAATGGTGGCTGCAGCAGCTCTGCTGTTCTCAGCTGAGCTGCAAGATAGTAGGGAGTAGGGTGGAGT  
TAGCTGGGACAGGTTGTCTGGGGCAGCTTCCCTCCACATGTCTCTCATCCTGCTTCCACCAGCAGGCTGGCT  
CAGGCCTTCTCATGGTAAAGGCAGAAGCAGGAGGGAGCAAATGGAAACACATATGGCCTCTGGAAGCCCAGG  
CTCAAAACTGGCACATTG↑↓TTATTTCTGCCTCATTCTGTTGGTTAAAATGAGACAAATGGTCAAACCTTTG  
AGACAAGGGTTGATGAAATCCCTACAAAGGACATGTATACAGGGAGGG
```

Filled site: ... [NEOcassette]

```
GTTTCACTCTGCCACCCAGGCTGTGCAGTGGTGCAGTCATAGCTCACTGCAGCCTTGAGCTCCTGGGCTCAA  
GGGATCCTCCCACCTCAGCTTCCCAACTCATTGAGACTATGCGTGGGCCACCATGCCAGTCTATTTATTAT  
CCTTTAAATGGTGGCTGCAGCAGCTCTGCTGTTCTCAGCTGAGCTGCAAGATAGTAGGGAGTAGGGTGGAGT  
TAGCTGGGACAGGTTGTCTGGGGCAGCTTCCCTCCACATGTCTCTCATCCTGCTTCCACCAGCAGGCTGGCT  
CAGGCCTTCTCATGGTAAAGGCAGAAGCAGGAGGGAGCAAATGGAAACACATATGGCCTCTGGAAGCCCAGG  
CTCAAAACTGGCACATTGGGCCGGGCGGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCG  
GGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAA  
AATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGA  
ATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGA... [NEOcassette] [No3' SequenceReads]
```

Alu at the 5'; LTR flanking the insertion site.

There are no 3' sequence reads to complete the A-tail and 3' flanking sequence.

CLONE 137

[Brown MP#26, (purple MP#3, 30, 31), Aluresuce15, Alurescue20, colored 34]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 106,930,681

Strand: plus

DR: AAAAAAGTAAAAATAA

ENDOsites: TTTT/AT

Empty site:

```
AGAATTCTTCTGGCCAGGCATGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGGCCGAGGGGGTGAAT
CACAAGGTCAGGAGATCGAGACCATCCTGGCTAACACCGTGAAACCCCGTCTCTACTAAAAATACAAAAAAT
TAGCTGGGCGTGGTGGCGGGCACCTGTATTCCCAGCTACTTGGGAGGCTGAGGCAGTAGAATGGCATGAACC
GGGGAGACAGAGGTTGCAGTGAGCTGAAATCGTGCCACTGCACTGCAGCCTGGGCGACAGAGCGAGACTCCA
TCTCAAAAAATAATAATCAT↑AAAAAAGTAAAAATAA↓AAAAAGAATTCTTCTACCACAAATATTTTTGGG
CCAACAGTCTTTAAATTTTTTTAATTGACATCTTGTAATTGTACATATTTATGGGGTATAATTTGA
```

Filled site:

```
AGAATTCTTCTGGCCAGGCATGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGGCCGAGGGGGTGAAT
CACAAGGTCAGGAGATCGAGACCATCCTGGCTAACACCGTGAAACCCCGTCTCTACTAAAAATACAAAAAAT
TAGCTGGGCGTGGTGGCGGGCACCTGTATTCCCAGCTACTTGGGAGGCTGAGGCAGTAGAATGGCATGAACC
GGGGAGACAGAGGTTGCAGTGAGCTGAAATCGTGCCACTGCACTGCAGCCTGGGCGACAGAGCGAGACTCCA
TCTCAAAAAATAATAATCATAAAAAAGTAAAAATAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCA
CTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCC
CGTCTCTACTAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGG
AGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACT
CCAGCC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAAAAAACATTACAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAGTAAAAATAAAAAAGAATT
CTTCTACCACAAATATTTTTGGGCCAACAGTCTTTAAATTTTTTTAATTGACATCTTGTAATTGTACATAT
TTATGGGGTATAATTTGA
```

Alu at the 5' of the insertion site; LINE-1 at the 3'.

CLONE 138

[Black Alu rescue MP#3 colored 38]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 50329568

Strand: minus

DR: undetermined

ENDOfsite: undetermined

Empty site:

```
CTGTAAGGCAGAACGGCTGCCCAGCTCGGATGACGCCACACTAACGTAGCCTCCAGACCGCCCAGTGTGGGT
GTGTCCAAGCTCACGTCGCCCCGGCGTGGCCCCCCCCGCTCCCCAATGACGTAAGTGCCTGCAGCTTCTAGTA
GCTTTTCGCAGCGTCTCCGACC↑↓GCCGGGCGCGGTGGCGCGTGCCTGTAGTCCCAGCTACTCGGGAGGCTG
AGGTGGGAGGATCGCTTGAGCCCAGGAGTTCTGGGCTGTAGTGCCTATGCC
```

Filled site:

```
CTGTAAGGCAGAACGGCTGCCCAGCTCGGATGACGCCACACTAACGTAGCCTCCAGACCGCCCAGTGTGGGT
GTGTCCAAGCTCACGTCGCCCCGGCGTGGCCCCCCCCGCTCCCCAATGACGTAAGTGCCTGCAGCTTCTAGTA
GCTTTTCGCAGCGTCTCCGACCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGA
GGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAA
AAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAG
GGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAAGTGAAGCCGAGATCCCGCCACTGCACTCCAGCCTG... [NE
Ocassette] [No3' SequenceReads]
```

No repetitive sequences in the immediate proximity.

There are no 3' sequence reads to complete the A-tail and 3' flanking sequence.

CLONE 139

[D13, D39]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 16,216,890

Strand: minus

DR: AAGAATACAAAAATTAG

ENDOsites: TCTT/AG

Empty site:

```
ATGCTGTAATGTATTAAAAAGCATTAACTGTCCACTTAAATGGGTGAATTTTACAGTGGAAGTTGCAGTGA
GCAGAGATTGCACTCCAGCCTGGGAAGCAGAGCAAGACCCAGTCTTAAAAAAAAAAAAAAAAAAAAAAAAACCTG
AGTCAAAATCTAAAAATATCAACCAGGCCGGGCACGGTGGCTCATGCCTATAATCCCAGCACTTTGGGAGGT
CGGGGTGGGCGGATCATAAGGTCAAGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACTCAGTCTCTACT↑
AAGAATACAAAAATTAG↓CTGGGTGTGGTGGTGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGG
AAAATCGCTTGAACCCGGGAGGCAGAGGTTGCAGTGAGCCTAGATCACATGAAAAATAAAAAATAAAATGTC
AACCTGATGTTATTGAACTGTATATAATGTGTTCCCACCTATTTGTAAGAAAATGTTTTACTGCCCTCATCT
TA
```

Filled site:

```
ATGCTGTAATGTATTAAAAAGCATTAACTGTCCACTTAAATGGGTGAATTTTACAGTGGAAGTTGCAGTGA
GCAGAGATTGCACTCCAGCCTGGGAAGCAGAGCAAGACCCAGTCTTAAAAAAAAAAAAAAAAAAAAAAAAACCTG
AGTCAAAATCTAAAAATATCAACCAGGCCGGGCACGGTGGCTCATGCCTATAATCCCAGCACTTTGGGAGGT
CGGGGTGGGCGGATCATAAGGTCAAGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACTCAGTCTCTACTA
AGAATACAAAAATTAGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGC
CGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCGTCTCTACTAAAAAAAAA
ATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAA
TGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcass
ette]AAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAATACAAA
ATTAGCTGGGTGTGGTGGTGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAAAATCGCTTGAA
CCCGGGAGGCAGAGGTTGCAGTGAGCCTAGATC
```

LINE-1 at the 5'; Alu flanking the insertion site.

CLONE 140

[D127]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 37,132,159

Strand: minus

DR: AAAATTGA

ENDOsites: TTTT/TA

Empty site:

```
AATTCCAGCTACTCAGGAGGCTGAAGCAGGAGAATCACTTGAACCCAGGAGGCGGAGGTTGCAGTGTGCTTG
AGATTGCACCACTGCACTCCAGCCTGGGCAATAGAGTGAGACTTCATCTCAAAAAAAAAAAAAAAAAAAGTAAC
TCTCCACTGCCCTCTCCCTCCAGGCCGAGGCAATCACCATTCTACTTTCTGTGTCTATGATTTTGACTACTC
TAACTTCCTCATA↑AAAATTGA↓ATCCTGGGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGG
AGGCCGAGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTA
```

Filled site:

```
AATTCCAGCTACTCAGGAGGCTGAAGCAGGAGAATCACTTGAACCCAGGAGGCGGAGGTTGCAGTGTGCTTG
AGATTGCACCACTGCACTCCAGCCTGGGCAATAGAGTGAGACTTCATCTCAAAAAAAAAAAAAAAAAAAGTAAC
TCTCCACTGCCCTCTCCCTCCAGGCCGAGGCAATCACCATTCTACTTTCTGTGTCTATGATTTTGACTACTC
TAACTTCCTCATAAAAATTGAGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAG
GCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAA
AAAATACAAAAATTAGCCGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGAGGCTGAGGCAGGG
GAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAACCGAGATCCCGCCACTGCACTCCAGCCT... [NEOca
ssette] AAAAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAACACACAAAATTGAATCCTGGGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCG
AGGCCGAGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTA
```

Alu 5' and 3'; LINE-1 flanking the insertion site.

CLONE 141

[S1, S2]

Driver: L1

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 57,139,354

Strand: minus

DR: AAAAA

ENDOfsite: TTTT/AA

Empty site:

```
GGCACTGATTCATTGGTTCATTCAACAAATACTCCCTGAGCACCCCGGGGCTATGCAGTTAATAAAACACAC
AGGAGCCAGTGGTGGCTCACACCTGTAATCTCAGCACTTTGGGAGGCTGAGGTGGAAGAATGGCTTGGGCCC
AGGAGTTTGGGGCTGCGGTGAGCTGTGATTGTGCCACTGCACTCCAACCTGGGCGATAGAGCAAACCCCTGT
CTTAAAAGTT↑AAAAA↓AAAAAAAAAAACCGGACACATAGGATTCAGCCCTCACAGGGTCCACTGACCCAG
CGAGGAGGCATCTTGCCCTTAGGCAGGACAGGCTTGGACATTGGT
```

Filled site:

```
GGCACTGATTCATTGGTTCATTCAACAAATACTCCCTGAGCACCCCGGGGCTATGCAGTTAATAAAACACAC
AGGAGCCAGTGGTGGCTCACACCTGTAATCTCAGCACTTTGGGAGGCTGAGGTGGAAGAATGGCTTGGGCCC
AGGAGTTTGGGGCTGCGGTGAGCTGTGATTGTGCCACTGCACTCCAACCTGGGCGATAGAGCAAACCCCTGT
CTTAAAAGTTAAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGC
GGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATA
CAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGAATGG
CGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCT... [NEOcassett
e] AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACCGGACACATA
GGATTCAGCCCTCACAGGGTCCACTGACCCAGCGAGGAGGCATCTTGCCCTTAGGCAGGACAGGCTTGGAC
ATTGGT
```

Alu 5' of the insertion site.

CLONE 142

[S31]

Driver: L1

Plasmid: AlurescueA70D A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: X

5' position: 13,030,507

Strand: minus

DR: AAGGACTCTTGTG

ENDOsites: CCTT/AA

Empty site:

```
GAGCAAGGTGTCGGCGGGACTGCATTCCCTGTCTGTAGGCTCTTGGTGAGAATCCATTTCCCTCACCTTCTCCA
GCTTCTAGAGGTTTCTACATTCCCTGGCTTAGGACTCCCTCCCTCTATCTTCAAAGCCAGCAGTGCCCGGCC
AAGTCCTTCTCAGGCTGCCATCCCGCTGGTCCTCCCTTGCATAGTCCCATCTTCCTTTTTTGCTTTT↑AAGG
ACTCTTGTG↓ATTACATTAAGTCCATCCCAAACCTTCAGGATAGTCACCCTATTTTAAAGTCATCTGCTTAG
CAACCTTAATTCCATCTGCCACCTAAATTCCCCTTTCC
```

Filled site:

```
GAGCAAGGTGTCGGCGGGACTGCATTCCCTGTCTGTAGGCTCTTGGTGAGAATCCATTTCCCTCACCTTCTCCA
GCTTCTAGAGGTTTCTACATTCCCTGGCTTAGGACTCCCTCCCTCTATCTTCAAAGCCAGCAGTGCCCGGCC
AAGTCCTTCTCAGGCTGCCATCCCGCTGGTCCTCCCTTGCATAGTCCCATCTTCCTTTTTTGCTTTTAAGGA
CTCTTGTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAC
GAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAATACAAAAA
TTAGCCGGGCGTGGTAGCGGGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAAC
CCGGGAGGCGGAGCTTGCAGTGAGCCGAGAT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGGACTCTTGTGATT
ACATTAAGTCCATCCCAAACCTTCAGGATAGTCACCCTATTTTAAAGTCATCTGCTTAGCAACCTTAATTCC
ATCTGCCACCTAAATTCCCCTTTCC
```

LTR flanking the insertion site.

CLONE 143

[Green Alu rescue MP#82, colored 41]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 18

5' position: 71,783,287

Strand: plus

DR: ATTTCT

ENDOfsite: AAAT/GC

Empty site:

```
TGTACACAAAATAATTTGACAGAAAATCTGGAAGTGCAAAAGATGTGAAAGATGTTTTGCTCCACTCTCC
TGGGTATCTATTTCTTTAGTGATACTGTACTTTCTTGGTCACTGTAGTTTCAGAGTGGTTAACATCTGCTAA
GCCAGCCCCCTCTCAATTCATTTTCAAACCTTAAGACCTGGATGGTGTATCACACAGGTGTTTTCTTTACAAT
TATCTGTCTTATGC↑ATTTCT↓CTGTGTGTCAATTCACAATACAAAGATGTTTAATTACCAAAAAAAGGAA
AAGCAAGGGAACAATTAACACAACAGACAGAATGGTGGTTCCTCTGGCA
```

Filled site:

```
TGTACACAAAATAATTTGACAGAAAATCTGGAAGTGCAAAAGATGTGAAAGATGTTTTGCTCCACTCTCC
TGGGTATCTATTTCTTTAGTGATACTGTACTTTCTTGGTCACTGTAGTTTCAGAGTGGTTAACATCTGCTAA
GCCAGCCCCCTCTCAATTCATTTTCAAACCTTAAGACCTGGATGGTGTATCACACAGGTGTTTTCTTTACAAT
TATCTGTCTTATGCATTTCTCAGTGAGCCGAGATCCCGCCACTGCACTCCAG... [NEOcassette] AAAA
AAAAAAAAAAAAAAAAAAAAAAAAATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAGAAAAAAAAATTCT [No3' SequenceReads]
```

LINE-1 at the 3'.

Alu truncation missing 226 5' bp.

CLONE 144

[T13]

Driver: ORF2

Plasmid: Alurescue A30D A₁₀CTA₁₀TACA₁₀

Chromosome: 8

5' position: 119,981,513

Strand: plus

DR: AAGACTTATTTTG

ENDOsites: TCTT/AT

Empty site:

```
TACAAGGATCTCTATAAGAGGAAGGCAAGAGGATCAGTCACTAGAAAGGAATTGTGACAATGGAAGTAGAGTT
TGGAGATATGGGGTCAAGAGCCAAGAAACGCCAACCAACCTCTGGAAGCGAATAAAGGAGAGAACAGATTTTC
CCCTGAAGTCTCCAGAAGGAACCAGCACTGACAGTACTTTGTAGCCCCAT↑AAGACTTATTTTG↓AACTTGT
GGCTTCCAGAATGATAGTAAATTCATGTTTCTTTAAGCCACTAGATGTGTGATACTATTGCAGCAAACATAG
GCAACTAATGGAGACTCATGG
```

Filled site:

```
TACAAGGATCTCTATAAGAGGAAGGCAAGAGGATCAGTCACTAGAAAGGAATTGTGACAATGGAAGTAGAGTT
TGGAGATATGGGGTCAAGAGCCAAGAAACGCCAACCAACCTCTGGAAGCGAATAAAGGAGAGAACAGATTTTC
CCCTGAAGTCTCCAGAAGGAACCAGCACTGACAGTACTTTGTAGCCCCATAAAGACTTATTTTGGGCCGGGCG
CGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAG
ACCATCCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTA
GCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTT
GCAGTGAGCCGACATCCCGCCACTGCACTCCAGCCTG... [NEOcassette] AAAAAAAAAACTAAAAAA
AAAAATACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG
ACTTATTTTGAACCTTGTGGCTTCCAGAATGATAGTAAATTCATGTTTCTTTAAGCCACTAGATGTGTGATAC
TATTGCAGCAAACATAGGCAACTAATGGAGACTCATGG
```

LTR flanking the insertion site.

CLONE 150

[LZ71]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 1,329,515

Strand: plus

DR: AAAAAAAAAA

ENDOsites: TTTT/GG

Empty site:

```
CTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACCTGAGGTCAGGAGTTCGAGAACAGCCTGAC
CAATATGGAGAAACCCAGTCTCTACTAAAAATACAAAATTAGTCAGGCATGGTGGTGCACGCCTGTAATCCC
AGGTACTCAGGAGGCTGAGGCAGGAGAATCGCTTGAAACCAGGAGGCGGAGGCTGCATGAGCTGAGGTTGCG
CCATTGCACTCCAGCCTGGACAACAGAGCGAGATTCCGTCTCC↑AAAAAAAAA↓AAAAAGCACTTCAATCT
GTGGTGGGCAATTTGTGGATAATTTGAACAGATGGCAGAAAGCCGAACAAGCAGATGAGGAAACCCACCAAT
AAAAAGGAGAT
```

Filled site:

```
CTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACCTGAGGTCAGGAGTTCGAGAACAGCCTGAC
CAATATGGAGAAACCCAGTCTCTACTAAAAATACAAAATTAGTCAGGCATGGTGGTGCACGCCTGTAATCCC
AGGTACTCAGGAGGCTGAGGCAGGAGAATCGCTTGAAACCAGGAGGCGGAGGCTGCATGAGCTGAGGTTGCG
CCATTGCACTCCAGCCTGGACAACAGAGCGAGATTCCGTCTCCAAAAAAAAAGGCCGGGCGCGGTGGCTCA
CGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGG
CTAACACGGTGAAACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTG
TAGTCCCAGTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCG
AGATCCCGCCACTGCA...[NEOcassette][A tail]AAAAAAAAAAAAAAAAAGCACTTCAATCTGTGG
TGGGCAATTTGTGGATAATTTGAACAGATGGCAGAAAGCCGAACAAGCAGATGAGGAAACCCACCA
ATAAAAAGGAGATGGAACCAAGATGGAACAATTTTTTGGGAAAACAAGTGCTTTGTTTCCATGT
GACACAGAAGGCACCCACAACGCTGGGAGTGAGGGACCGTGTACGG
```

Alu flanking the insertion site.

CLONE 151

[GG29]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 8,215,946

Strand: minus

DR: AAAAACAAAAAAGGA

ENDOsites: TTTT/GT

Empty site:

```
GTAAGGCGAACCAAGAGAAAAGGCAAGGAGAAGCGGCCACTCCGAAGGCAGCAGGGACGCAAGTAGGAGTGAC
CAAGAAAATTAGCCAGGTGCTGTGGCGCACACCTGTGGTCCCAGCTACTGGGGAGGCTAAGGTGAGAGAATG
GCCTGCGCCCAGGAGGTTGAGGCTGCAGTGTGCTGTGATTGTACCACAGCACTCCAGCCTGGGCAACAGGGT
GAGACCCTGTCTCAAAAAC↑AAAAACAAAAAAGGA↓GATGACCTAAAAGAGGAGCACTCCGTGGCTCCTCAG
CCCTTGGAGAAGGAAGCTGCTTTGCTCTGCCGTGCTCCACCGGCCTCCTGCGTCCCCCTCCTCCCCTTCCTC
CACCTCCAAACCACATTCCAAGAGAGGCGGGGACTGAAACCAATTGTTCCAGCCTGGGATTAGGCAAACGTG
GGCCCTGTACCTTCAGCTCC
```

Filled site:

```
GTAAGGCGAACCAAGAGAAAAGGCAAGGAGAAGCGGCCACTCCGAAGGCAGCAGGGACGCAAGTAGGAGTGAC
CAAGAAAATTAGCCAGGTGCTGTGGCGCACACCTGTGGTCCCAGCTACTGGGGAGGCTAAGGTGAGAGAATG
GCCTGCGCCCAGGAGGTTGAGGCTGCAGTGTGCTGTGATTGTACCACAGCACTCCAGCCTGGGCAACAGGGT
GAGACCCTGTCTCAAAAACAAAAACAAAAAAGGAGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACT
TTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCG
TCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGA
GGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTC
c... [NEOcassette] [Atail] AAAAACAAAAAAGGAGATGACCTAAAAGAGGAGCACTCCGTGGCTCCT
CAGCCCTTGGAGAAGGAAGCTGCTTTGCTCTGCCGTGCTCCACCGGCCTCCTGCGTCCCCCTCCTCCCCTTC
CTCCACCTCCAAACCACATTCCAAGAGAGGCGGGGACTGAAACCAATTGTTCCAGCCTGGGATTAGGCAAAC
GTGGGCCCTGTACCTTCAGCTCC
```

Alu at the 5'.

CLONE 152

[LZ62]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 8,937,306

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
AAAGCTTCCTGTTCAATGTTCCCTGCTCTGTGCGCTTCTCTGGGCGGTAGGGTCCATTGCTTCACTTGCCT
TTCAGGCCCACCCGGGCCCTGACTGCTCCATTCAATTTACCGTGTCCCTAATTCGGGGTTCCATCCAGGCAGC
TAAAAAAGCTGTGAATGGTCCGGGCGCGGTGGCTCACGCCTGTAATCCGAGCACTTTGGGATGCCGAGGTGG
GCCTCCTCAGGATCACCTGAGGTTCGGGAGTTAGAGACCAGCCTGACCAACGTGGTCAAACCCCGTCTCTACT
GAAAATACAAAAATCGACCA↑GGCGCGGTGGCTCACGCCTGTAATCC↓TAGCACTTTGGGAGGCCGAGGTGG
GTGGCTCACGAGGTGAGGAGATCGAGACCATCCTACTCTACTAAACCCCATCTCTACTAAAAATACAAAAAA
TTAGCCGGGTGTGGTGGTGGGCGCCTGTAGTCCCAGCTACTCTGGAGGCGGAGCCTGCAGTGAGTCGAGATC
GTGTCA
```

Filled site:

```
AAAGCTTCCTGTTCAATGTTCCCTGCTCTGTGCGCTTCTCTGGGCGGTAGGGTCCATTGCTTCACTTGCCT
TTCAGGCCCACCCGGGCCCTGACTGCTCCATTCAATTTACCGTGTCCCTAATTCGGGGTTCCATCCAGGCAGC
TAAAAAAGCTGTGAATGGTCCGGGCGCGGTGGCTCACGCCTGTAATCCGAGCACTTTGGGATGCCGAGGTGG
GCCTCCTCAGGATCACCTGAGGTTCGGGAGTTAGAGACCAGCCTGACCAACGTGGTCAAACCCCGTCTCTACT
GAAAATACAAAAATCGACCAGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGC
GGATCACGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTCAAACCCCGTCTCTACTAAAAAAAATA
CAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGG
CGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC...[NEOcassette] [A tail and
3' unsequenced]
```

Alu flanking the insertion site.

Inserted by recombination with a pre-existing truncated Alu: missing between 5-31 bp of 5' Alu sequence.

Sequence is shared between the Alu rescue vector and the genomic pre-insertion site.

CLONE 153

[LZ12]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 21,737,472

Strand: minus

DR: AAAAATCAGAAATG

ENDOsites: TTTT/AT

Empty site:

```
GAATTCCTCTTAGGGATATATTAGTAAAGTAACAGTATATATGGTATAGTATAGTATAGTAGTAATACTGGA
ATCAGACTGCCTAGCTCTGATGCTTATACCCATTCAACCTTCTTAACCTTTCTGAGCCTTTGTCCTTACCTT
AACAATAGATAAAAATCAACGAAACCAAAGTTGTTTCTTTGAAAAGATTGACAGAATTGACAAACTTTTAGCT
AGACTGGCCAGTGAAAAAAGGGAGAAGACTCAAATTA↑AAAAATCAGAAATG↓AAAACGGGAACATTACCACC
AACCTTACAGAAATAAAAAGGATTATAGGAGAATACTATGAACAATTGTATACTAACAAATTCGATAACATA
GATGAAATGGATAAAATTTCTCAAAAGACAAACTGCCAAACTGAATCAAAAAGAGAAAAAAAAAATCTAAAT
AGACCTATGACAAGTAAAGAGATTCAATCAGTAGTC
```

Filled site:

```
GAATTCCTCTTAGGGATATATTAGTAAAGTAACAGTATATATGGTATAGTATAGTATAGTAGTAATACTGGA
ATCAGACTGCCTAGCTCTGATGCTTATACCCATTCAACCTTCTTAACCTTTCTGAGCCTTTGTCCTTACCTT
AACAATAGATAAAAATCAACGAAACCAAAGTTGTTTCTTTGAAAAGATTGACAGAATTGACAAACTTTTAGCT
AGACTGGCCAGTGAAAAAAGGGAGAAGACTCAAATTA↑AAAAATCAGAAATGGGCCGGGCGCGGTGGCTCACGC
CTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTA
ACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGT
AGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGA
GATCCCGCC... [NEOcassette] [A tail] AAAAATCAGAAATGAAAACGGGAACATTACCACCAACCTT
ACAGAAATAAAAAGGATTATAGGAGAATACTATGAACAATTGTATACTAACAAATTCGATAACATAGATGAA
ATGGATAAAATTTCTCAAAAGACAAACTGCCAAACTGAATCAAAAAGAGAAAAAAAAAATCTAAATAGACCT
ATGACAAGTAAAGAGATTCAATCAGTAGTC
```

LINE-1 flanking the insertion site.

CLONE 154

[LZ60]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 54,191,570

Strand: plus

DR: AAGAACTTCCC

ENDOsites: TCTT/GA

Empty site:

```
CCGACCCTCCAGGCTGCGAGCTCCGAGGAGGCAAGGGCTCCATCTGTTGGTTCTCCATGGTGTCCCAGGGCA
GAACCCAACACTGGGAGCACAGCGGGCATCCGATAAATATGGATAAACCAACCAACCACCAGCCAAACACAG
GTACAGCCATTCCAGTTTTTCAGGCTAATTCTACATACTTCATCCCATCTGCCCCAACAATTGGCCAGACAG
GGGTCAATCCCCCATTTTTAAAAGGGGGAAGTGAAGTCTCAAAAAATTGAGAGCCACTCTGAGTTGCTGTACTGA
AAATCTGCTTC↑AAGAACTTCCC↓AAGAAGCCCCACCTTGACTGGAGAGGGGCAGATTTCATCCTGCCAGGGT
GCTGTGTTCTTTCTATCCTTTGCTCTATCCTCTATCAGCAAGTCAGAGATGCGTTCATGACATATCCTGCTT
CCAAGAAGCCACAGTTTTCATGGGGAAGGGAAAAATGAACGCAAGCATCTGGAACACCTGACTCTTTCATGA
GAGATAAA
```

Filled site:

```
CCGACCCTCCAGGCTGCGAGCTCCGAGGAGGCAAGGGCTCCATCTGTTGGTTCTCCATGGTGTCCCAGGGCA
GAACCCAACACTGGGAGCACAGCGGGCATCCGATAAATATGGATAAACCAACCAACCACCAGCCAAACACAG
GTACAGCCATTCCAGTTTTTCAGGCTAATTCTACATACTTCATCCCATCTGCCCCAACAATTGGCCAGACAG
GGGTCAATCCCCCATTTTTAAAAGGGGGAAGTGAAGTCTCAAAAAATTGAGAGCCACTCTGAGTTGCTGTACTGA
AAATCTGCTTCAAGAACTTCCCGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGA
GGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAA
AAAAAATACAAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGG
CAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTC... [NEOca
ssette] [Atail] AAGAACTTCCCAAGAAGCCCCACCTTGACTGGAGAGGGGCAGATTTCATCCTGCCAGG
GTGCTGTGTTCTTTCTATCCTTTGCTCTATCCTCTATCAGCAAGTCAGAGATGCGTTCATGACATATCCTGC
TTCCAAGAAGCCACAGTTTTCATGGGGAAGGGAAAAATGAACGCAAGCATCTGGAACACCTGACTCTTTCAT
GAGAGATAAA
```

L2 and MIR at the 5'.

CLONE 155

[LZ34]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 65,860,631

Strand: minus

DR: AAAAGAACCCAGCAA

ENDOsites: TTTT/CT

Empty site:

```
CATAAAATAATCATATGTCCTACAATCAAGGGTCATTTATGATTCTGTCCATGTAGCTCTAATGCAAAAAAG
GATACCATAGTCAAATAGGAAAGCAGAGCAAAACAAAGTTAAGCAGGTTTCTGTCCTGTAAGACAGCCCAGA
GATTTTGATATGTTAAGGTGAGTTGTTAATTTCAAAAACAGAGATGTGTGAGGAAGCTTTTATCAAAAAAGC
ACCCACAGGGTGCTTTTATATATGAGCACTTACTGATATCTTGCAGAAAACACTATGTTCCACTGAACACAATA
TAAAATATTTCCCTTACCATGTACTGTGGGCGAAGGACTTCTTGTGGGCTGGAGAAAGGGGTCCTGGAAGCA
CTGGATGTGTTTCAG↑AAAAGAACCCAGCAA↓ATCCTGACCTGATGGTTTAGAAGGTGCTCCAAATGGGTCAA
AGGTGGCACCTAGAAAACAATGGGAAAATATATTTATTTGTCCCATGAGTTCATTCACTAAATGTCACAGAA
TTGTCACTTCCCTGTAGGGCTAACAGTGGACTCCAAGAATTTTCTATCTTTGTGGACAAAGGAGTAGTCTGGA
CTTACCTGTTGGATG
```

Filled site:

```
CATAAAATAATCATATGTCCTACAATCAAGGGTCATTTATGATTCTGTCCATGTAGCTCTAATGCAAAAAAG
GATACCATAGTCAAATAGGAAAGCAGAGCAAAACAAAGTTAAGCAGGTTTCTGTCCTGTAAGACAGCCCAGA
GATTTTGATATGTTAAGGTGAGTTGTTAATTTCAAAAACAGAGATGTGTGAGGAAGCTTTTATCAAAAAAGC
ACCCACAGGGTGCTTTTATATATGAGCACTTACTGATATCTTGCAGAAAACACTATGTTCCACTGAACACAATA
TAAAATATTTCCCTTACCATGTACTGTGGGCGAAGGACTTCTTGTGGGCTGGAGAAAGGGGTCCTGGAAGCA
CTGGATGTGTTTCAGAAAAGAACCCAGCAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGG
AGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCT
ACTAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTG
AGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCCTCCA... [N
EOcassette] [Atail]AAAAGAACCCAGCAAATCCTGACCTGATGGTTTAGAAGGTGCTCCAAATGGG
TCAAAGGTGGCACCTAGAAAACAATGGGAAAATATATTTATTTGTCCCATGAGTTCATTCACTAAATGTCAC
AGAATTGTCACTTCCCTGTAGGGCTAACAGTGGACTCCAAGAATTTTCTATCTTTGTGGACAAAGGAGTAGTC
TGGACTTACCTGTTGGATG
```

hAT-Charlie DNA element at the 5'.

CLONE 156

[LZ27]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 66,642,147

Strand: plus

DR: AAATAATGCAGTAA

ENDOsites: ATTT/AA

Empty site:

```
CCTCTTTGATTGCATAGTTGACTCAACAAAGGCAAGATTTCCCACGCTGAAGACAGATGGGAAAATTCCAAG
GTTGGAGGTTCGACTGGCAAGAAGCAGGCAGCTAATCTAACGGATAGTGTCTTGAGAGAACCCCGCCTACAAA
ACCACAGATCTAACACAGCATGGGGGCTAGGCATCGCCTAAAATCTGCAGGTCCATCCACTCTTGGAACATT
CCCTGCCTGAGATCACAGCTACCCAAAGCAAGCTCTGTTGTGCCAATCACAGTGAATTAGTCAGATAGCTAA
GACTTCCCTCTT AAATAATGCAGTAA ↓ TTTAATTTTCTTGTGATAATTAGAAGGTTGAAGGAAATAAATCT
CTTAACTATAGCCCTCAATTTATTCAAATATAAGTGCAGATTATAGCACAGATGAAGCTATCATATTTAAAG
ATAATCAAGTTATAAAACTGGTATTTCTATCAAGGCTATTTGTATCAACTAATTTAAAGTTATCTTTTGAAT
TACCATGCCTGC
```

Filled site:

```
CCTCTTTGATTGCATAGTTGACTCAACAAAGGCAAGATTTCCCACGCTGAAGACAGATGGGAAAATTCCAAG
GTTGGAGGTTCGACTGGCAAGAAGCAGGCAGCTAATCTAACGGATAGTGTCTTGAGAGAACCCCGCCTACAAA
ACCACAGATCTAACACAGCATGGGGGCTAGGCATCGCCTAAAATCTGCAGGTCCATCCACTCTTGGAACATT
CCCTGCCTGAGATCACAGCTACCCAAAGCAAGCTCTGTTGTGCCAATCACAGTGAATTAGTCAGATAGCTAA
GACTTCCCTCTTAAATAATGCAGTAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGG
CCGAGGCGGGCGGATCACGAGGTGAGGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACT
AAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGG
CAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCA... [NEOcassette] [
Atail] AAATAATGCAGTAATTTAATTTTCTTGTGATAATTAGAAGGTTGAAGGAAATAAATCTCTTAACTA
TAGCCCTCAATTTATTCAAATATAAGTGCAGATTATAGCACAGATGAAGCTATCATATTTAAAGATAATCAA
GTTATAAAACTGGTATTTCTATCAAGGCTATTTGTATCAACTAATTTAAAGTTATCTTTTGAATTACCATGC
CTGC
```

No repetitive sequences in the immediate proximity.

CLONE 157

[LZ15]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 67,441,039

Strand: plus

DR: N/A

ENDOfsite: N/A

Empty site:

```
GAGGATGATTTTTTTTTAAAGTCCTGATTGCTGTCAGTCTCAGAGCAATATGGATCAGAGCTGTACAGTGCAA
ACGGGAAGAAAGCAAAATATATGTTGGGTAAGGGAGGGTATCATCAACATTTGTCCTTTAGGTGCAATCAGT
GCTACAGAATATTTACTTCAAGAGCAGAAATTTATGGGATAAAGAAGTATATTGCATCCAGAACACATACAG
ACACTGGATTTTCCTTTTTAAATGGTCAGTATTGCCGGTGCAGTGGCTCATGCCTGTTATCTCAGTACTTTGGG
AGGTTGAAGCATGCAGATTGCTTGAGCCTGGGAGTTCAAGAACAGCCTAGGCAACATGGCAAAACCCC↑A↓T
CTCTACAAAAAATAGAAAAATTACCTGAGTTTGGTGGCATGCAATTGTGGTCCCAGTTATTGAGGGTGCTGA
GGCAGGAGGATTGCTTGAGCCTGGGAGGGCAAGGCTGCAGTTAGCGGTTTGGTGCCACTGTACTCCAGCCTG
GGCAACAGAGCATGACACTATCTCAAAAAAAAAAGAAAAAGAAAGGAAAAAAGT
```

Filled site:

```
GAGGATGATTTTTTTTTAAAGTCCTGATTGCTGTCAGTCTCAGAGCAATATGGATCAGAGCTGTACAGTGCAA
ACGGGAAGAAAGCAAAATATATGTTGGGTAAGGGAGGGTATCATCAACATTTGTCCTTTAGGTGCAATCAGT
GCTACAGAATATTTACTTCAAGAGCAGAAATTTATGGGATAAAGAAGTATATTGCATCCAGAACACATACAG
ACACTGGATTTTCCTTTTTAAATGGTCAGTATTGCCGGTGCAGTGGCTCATGCCTGTTATCTCAGTACTTTGGG
AGGTTGAAGCATGCAGATTGCTTGAGCCTGGGAGTTCAAGAACAGCCTAGGCAACATGGCAAAACCCCAGCG
GGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCA
GTGAGCCGAGATCCCGCC...[NEOcassette][A tail and 3' unsequenced]
```

Alu flanking the insertion site.

Alu insert truncation: missing between 151-152 bp of 5' Alu sequence.

Sequence is shared between the Alu rescue vector and the genomic pre-insertion site.

CLONE 158

[GG34]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 85,808,537

Strand: plus

DR: AAAAAATGCAGAT

ENDOsites: TTTT/AA

Empty site:

```
TTATATTTTCAAGTTTATAACAATGTTTAATTCTGGGCAGGAAAAACCTAAGAAGTTTCTAGTTTTCTATGGC
TTTTAATTTGAATACTTTCTTTACTTTTACTGCTAATGTAATCGGGATATGTTATTTTGCACCTGTATGACAA
AAACGTTGGCTTCTTCAGGTGCACATTATTCGGGATTGTAAGCTGGGCACCTTTTGGAAAGTTGCAGATATCCT
TGAAAGCAGTGGCTCTCAACCTTGGCCTGTGCATTAGAATCACCTGCAGAGCTTTT↑AAAAAATGCAGAT↓G
CCTGGGTTCCATTCCAGACCCAGAATATCAGAATTTTCTGAGATAAACCCAGGGTAGTATGTTTTTCAGAAAG
CTACTCAGATGCCTTTAAACCACTCTCACTAGGAACCACTAATTTAAGGTCACCTATAGACTTTTTCTTTCA
GAAGTTAGAGTCTTGGGTTGAAAGGCCCTTATAAGGCTATGTGGCCAACCATCC
```

Filled site:

```
TTATATTTTCAAGTTTATAACAATGTTTAATTCTGGGCAGGAAAAACCTAAGAAGTTTCTAGTTTTCTATGGC
TTTTAATTTGAATACTTTCTTTACTTTTACTGCTAATGTAATCGGGATATGTTATTTTGCACCTGTATGACAA
AAACGTTGGCTTCTTCAGGTGCACATTATTCGGGATTGTAAGCTGGGCACCTTTTGGAAAGTTGCAGATATCCT
TGAAAGCAGTGGCTCTCAACCTTGGCCTGTGCATTAGAATCACCTGCAGAGCTTTTAAAAAATGCAGATGGC
CGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAG
ATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGC
GTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCG
GAGCTTGCAGTGAGCCGAGATCCCGCCAC... [NEOcassette] [Atail] AAAAAATGCAGATGCCTGGG
TTCCATTCCAGACCCAGAATATCAGAATTTTCTGAGATAAACCCAGGGTAGTATGTTTTTCAGAAAGCTACTC
AGATGCCTTTAAACCACTCTCACTAGGAACCACTAATTTAAGGTCACCTATAGACTTTTTCTTTTCAGAAAGTT
AGAGTCTTGGGTTGAAAGGCCCTTATAAGGCTATGTGGCCAACCATCC
```

hAT-Charlie DNA element flanking the insertion site.

CLONE 159

[LZ64]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 117,549,581

Strand: plus

DR: AAAAATTTTCA

ENDOsites: TTTT/AT

Empty site:

```
TTGTCATAATCTTCCCAATTCTCCAAAATCCATTTCTAATGCCATCTCTTATGCCATCTCCATAAACCTATT
TCCCTCCCCTCAAAATGTAGTCCCTCTTCAAAATTTTTGAAGCACTTTTATTATATGTTTTCCATAGAGAGG
TGACTACTATCCACTTGATTGGATTATGAAATCCAGAAGTCAGAATCTAGCCTAAATTCATCTTCATATCTT
AGTCCCTCAAGCATGAGAAATACTATAAGTGGTTGAATAAATATTTTATTGAATTGGCAAATAAAGCAGTAGA
AAAAGAAGTGCCTGTTTTTCACAAT ↑AAAAATTTTCA↓ AACGTGGTACCCATCTTGCTGAAAAGTGATGGGAA
ACGTTTCGAGAAGTGTTCCTAGCCACCAAAAATAACATTGTTTGTAGAAACATGCCTTGATATATGTGGGTT
AGTGGTACCTCAAAAGCCACATTAAGAAAATATTTTTATTGTGAAATACAACATAAGAAAATTTTTATTATT
TGTTTAAAATAATTTTAAAAT
```

Filled site:

```
TTGTCATAATCTTCCCAATTCTCCAAAATCCATTTCTAATGCCATCTCTTATGCCATCTCCATAAACCTATT
TCCCTCCCCTCAAAATGTAGTCCCTCTTCAAAATTTTTGAAGCACTTTTATTATATGTTTTCCATAGAGAGG
TGACTACTATCCACTTGATTGGATTATGAAATCCAGAAGTCAGAATCTAGCCTAAATTCATCTTCATATCTT
AGTCCCTCAAGCATGAGAAATACTATAAGTGGTTGAATAAATATTTTATTGAATTGGCAAATAAAGCAGTAGA
AAAAGAAGTGCCTGTTTTTCACAATAAAAATTTTCAGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCAC
TTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCC
GTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGG
AGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCA... [NEOca
ssette] [Atail] AAAAATTTTCA AACGTGGTACCCATCTTGCTGAAAAGTGATGGGAAACGTTCGAGAA
GTGTTGCCTAGCCACCAAAAATAACATTGTTTGTAGAAACATGCCTTGATATATGTGGGTTAGTGGTACCTC
AAAAGCCACATTAAGAAAATATTTTTATTGTGAAATACAACATAAGAAAATTTTTATTATTGTTTAAAATA
ATTTTAAAAT
```

No repetitive sequences in the immediate proximity.

CLONE 160

[GG50]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 151,963,026

Strand: minus

DR: AGAATTGTTTTCCA

ENDOsites: TTCT/GG

Empty site:

```
AGAAACACAAATAACTAGAAATTCAGGCCAAATGCTTTAATAGTATTCCATTAGCTGGTGAACCTCCTCAAAGG
CAAGCACCATGGAGAGCTTTGTGTGTGTGTGCATGTGTGTATGTGTGTGTGAACACCCTCATGCCTAACACC
ATGTCTGGGACATTCAAAGTAGGTGCTCAGGGAGGGAGAACCAAAAATGGAAAATTGAATTCCTCCTAAGGT
AACTAAATTTGTGGAGTCC † AGAATTGTTTTCCA ‡ TAGAGAAAATGCAGAGAAAGATGTCTCCGCCTCC
CTTCTTAAGACCTGTTGCTCAGACAAACATGTAGAGGGCATGTATAGGCATCAGATTAGAATACTTCAATAA
AAGGTGAGTGGACAGCAAGGCTGTTATTATCCTGTGGAGCTCAGCAGTGAGATAGCAGCACTAGAAAAGCAA
AAAGTAGAAGATGGGATGA
```

Filled site:

```
AGAAACACAAATAACTAGAAATTCAGGCCAAATGCTTTAATAGTATTCCATTAGCTGGTGAACCTCCTCAAAGG
CAAGCACCATGGAGAGCTTTGTGTGTGTGTGCATGTGTGTATGTGTGTGTGAACACCCTCATGCCTAACACC
ATGTCTGGGACATTCAAAGTAGGTGCTCAGGGAGGGAGAACCAAAAATGGAAAATTGAATTCCTCCTAAGGT
AACTAAATTTGTGGAGTCCAGAATTGTTTTCCA GCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTT
GGGAGGCCGAGGGCGGGCGGATCACGAGGTGAGGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTC
TCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGG
CTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCC... [NEOcassette
] [Atail] AGAATTGTTTTCCATAGAGAAAATGCAGAGAAAGATGTCTCCGCCTCCCTTCTTAAGACC
TGTTGCTCAGACAAACATGTAGAGGGCATGTATAGGCATCAGATTAGAATACTTCAATAAAAAGGTGAGTGGA
CAGCAAGGCTGTTATTATCCTGTGGAGCTCAGCAGTGAGATAGCAGCACTAGAAAAGCAAAAAGTAGAAGAT
GGGATGA
```

No repetitive sequences in the immediate proximity.

CLONE 161

[LZ35]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 182,982,875

Strand: plus

DR: ACTAAATCTTCCT

ENDOsites: TAGT/AA

Empty site:

```
TTTGTAGGGTATTTCTATTATGCCTATAAATTATGTTTTTACATTTTAGAAATTCAAAAAACTTTATAAGA
TATTATTTATTAGCAAAACATCCATTCAAAGATTAATGTTTTGTTATTTTGGACATAGATATCAAACCTAGG
TGAATGTAAATTTGTGACTGATAGTATGACAACATACACATGAACCGATGTTTGACACTTGCTGTGTCTTTG
ATAAGTCAATATAATTTGAGAGGCAGTATTATGTAATGGTGAAGACAGAGACTGCAGCCAGACTGCCCGTGT
CTGAATCTCAGCTCTGCCACTTATTAGCAGTATAATCCTAAGTT↑ACTAAATCTTCCT↓ATGCCTCTGTTTT
CTCACTTATAAAATGGGATGATACTAAAACATATATCTCATAGGATTATTGCAATGATTAAATAAGTTAAC
ATACACTGAGCACTTAAAATGTCATTGCTACAAACTCCAAATAAGTATTTGTTATTGTTGTACATAAGGGGT
AAGAACATTGACTCTAATGTCAGACATCCCCAGTTTGAATCCA
```

Filled site:

```
TTTGTAGGGTATTTCTATTATGCCTATAAATTATGTTTTTACATTTTAGAAATTCAAAAAACTTTATAAGA
TATTATTTATTAGCAAAACATCCATTCAAAGATTAATGTTTTGTTATTTTGGACATAGATATCAAACCTAGG
TGAATGTAAATTTGTGACTGATAGTATGACAACATACACATGAACCGATGTTTGACACTTGCTGTGTCTTTG
ATAAGTCAATATAATTTGAGAGGCAGTATTATGTAATGGTGAAGACAGAGACTGCAGCCAGACTGCCCGTGT
CTGAATCTCAGCTCTGCCACTTATTAGCAGTATAATCCTAAGTTACTAAATCTTCCTGGCCGGGGCGGGTGG
CTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGGAGATCGAGACCATC
CTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCG
CCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGA
GCCGAGATCCCGCC...[NEOcassette] [Atail]ACTAAATCTTCCTATGCCTCTGTTTTCTCACTTAT
AAAATGGGATGATACTAAAACATATATCTCATAGGATTATTGCAATGATTAAATAAGTTAACATACACTGA
GCACTTAAAATGTCATTGCTACAAACTCCAAATAAGTATTTGTTATTGTTGTACATAAGGGGTAAGAACATT
GACTCTAATGTCAGACATCCCCAGTTTGAATCCA
```

MIR flanking the insertion site.

CLONE 162

[LZ53]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 186,433,913

Strand: plus

DR: AGAATTTTATTATCTC

ENDOsites: TTCT/GA

Empty site:

```
TGTAAGAGAGGAGACATATCTTCCTTCATTGTCTTCTTACTATATGCATAATTTTAAATCTTTTCAAACATAT
TTTTGAAACCTATTTTACTTTGGATTATAGTATTCTTAATTTTATTTTATCATATTTGATTGCATACCCTTT
TTTCTACCTTTTTTATAGTATCCTTTAACAAATCATATGGGCATTCACTGAGATGTTACACCATCAGCCACTT
TATCTTTCTCCTTTCTAAAAATATGTGGAGATAGTTATTGTC ↑AGAATTTTATTATCTC↓ CTGATGTTATT
TATTTTAGAGAGTCTTTGGCAAAGAATATATAACTTTTTTTTTTAAAGAGAAGGGGTCTCATTATGTTAGCC
CAGGCTGGCCTTGAAGTCTGGGGTCAAGTAACTCTCCTGCCTCAGCCTCCCAAGTGGCTGGGATTACAGGC
ACCTGCCTTCTGTAATGCTTATTGCCTTCTATATATCTGTAGCACT
```

Filled site:

```
TGTAAGAGAGGAGACATATCTTCCTTCATTGTCTTCTTACTATATGCATAATTTTAAATCTTTTCAAACATAT
TTTTGAAACCTATTTTACTTTGGATTATAGTATTCTTAATTTTATTTTATCATATTTGATTGCATACCCTTT
TTTCTACCTTTTTTATAGTATCCTTTAACAAATCATATGGGCATTCACTGAGATGTTACACCATCAGCCACTT
TATCTTTCTCCTTTCTAAAAATATGTGGAGATAGTTATTGTCAGAATTTTATTATCTC GGCCGGGCGCGGT
GGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCA
TCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGG
CGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGT
GAGCCGAGATCCCGCC... [NEOcassette] [A tail] AGAATTTTATTATCTCCTGATGTTATTTATTTT
AGAGAGTCTTTGGCAAAGAATATATAACTTTTTTTTTTAAAGAGAAGGGGTCTCATTATGTTAGCCAGGCT
GGCCTTGAAGTCTGGGGTCAAGTAACTCTCCTGCCTCAGCCTCCCAAGTGGCTGGGATTACAGGCACCTGC
CTTCTGTAATGCTTATTGCCTTCTATATATCTGTAGCACT
```

Alu at the 3'.

CLONE 163

[TZ2, TZ6]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 186,648,182

Strand: minus

DR: N/A

ENDOsites: N/A

Empty site:

```
CGAGGTGTATGTATGAGTGTGGGATTTGACCAGTATAAGTGCATTGTACCCGGACAGGATTCTATGGAGAA
AACTGCTCAACACGTAAGTTTGTCTTTGGTTGCCTCATTAGGAGTGGGGCTGGATACAGTTATCATTGTAT
AGATTTGTGTCTTATAANNAGTCCCATTAAATTTCTCCCTCCCTTTCTTCGTCTTCTTGCAGCGGAATTTTGG
ACAAGAATAAAAATTATTTCTGAAACCCACTCCAAACACAGTGCACACTACATACTTACCCACTTCAAGGGATTT
TGGAACGTTGTGAATAACATTCCCTTCCCTTCGAAATGCAATTATGAGTTATGTGTTGACATGTAAGTACGT ↑
↓ AAGTGTCTTTCTAAGGTTTTTAGCCTTCTCAAAGAAAAATATGCTTTATAATACTGTAAGCCTAATCTAAA
AACATATTTCCAAGCTTATCAAAAAGACTTTAAGATAGCTTTTAAGTTTGCCTTCCATCTTAATCGCCAAAA
ATATTGACATTTAGTCCCATCCAGTTTATACAGTCTGCTCACAACTCTGTATACCTC
```

Filled site:

```
CGAGGTGTATGTATGAGTGTGGGATTTGACCAGTATAAGTGCATTGTACCCGGACAGGATTCTATGGAGAA
AACTGCTCAACACGTAAGTTTGTCTTTGGTTGCCTCATTAGGAGTGGGGCTGGATACAGTTATCATTGTAT
AGATTTGTGTCTTATAANNAGTCCCATTAAATTTCTCCCTCCCTTTCTTCGTCTTCTTGCAGCGGAATTTTGG
ACAAGAATAAAAATTATTTCTGAAACCCACTCCAAACACAGTGCACACTACATACTTACCCACTTCAAGGGATTT
TGGAACGTTGTGAATAACATTCCCTTCCCTTCGAAATGCAATTATGAGTTATGTGTTGACATGTAAGTACGTG
GCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGG
AGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGG
CGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGC
GGAGCTTGAGTGGAGCCGAGATCCCGCC...[NEOcassette][A tail and 3' unsequenced]
```

No repetitive sequences in the immediate proximity.

CLONE 164

[LZ44]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 205,596,728

Strand: plus

DR: AAGGAGGTGAATTT

ENDOsites: CCTT/AG

Empty site:

```
ACTCAGGAGGCTGAGGGAGGAGAATGGCGTGAACCTGGGAGGCAGAGTTTGCAGTGAGCTGAGATTGCGCCA
CTGCACTCCAGCCTGGGTGACAGAGCGGAGACTCCGCCTCAAAAAAAAAAAAAAGAAAAGAAAATATTATAAACT
TAGATTGTGTTTCATGCTTGCACAAAACCCACAGCATATTACACCT↑AAGGAGGTGAATTT↓TTTAAAACAAA
CAACACAACAACACTATAAAAAGTTAGGTCTGGGAAGACTAATTCTAACAACATTTAACTCACAGAAGATGG
GATTCTTAAGGGTCAACTATACCTACTTCCAAAAAGGGCAGAGATAAGAACTGTAGTGAAAAATAGTTGGG
TTTCTATAACTTT
```

Filled site:

```
ACTCAGGAGGCTGAGGGAGGAGAATGGCGTGAACCTGGGAGGCAGAGTTTGCAGTGAGCTGAGATTGCGCCA
CTGCACTCCAGCCTGGGTGACAGAGCGGAGACTCCGCCTCAAAAAAAAAAAAAAGAAAAGAAAATATTATAAACT
TAGATTGTGTTTCATGCTTGCACAAAACCCACAGCATATTACACCTAAGGAGGTGAATTTGGCCGGGCGCGGT
GGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCA
TCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGG
GCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAG
TGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] [Atail]AAGGAGGTGAATTTTTTAAAAC
AAACAACAACAACAACACTATAAAAAGTTAGGTCTGGGAAGACTAATTCTAACAACATTTAACTCACAGAAGA
TGGGATTCTTAAGGGTCAACTATACCTACTTCCAAAAAGGGCAGAGATAAGAACTGTAGTGAAAAATAGTT
GGGTTTCTATAACTTT
```

Alu at the 5'.

CLONE 165

[TZ4]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 1

5' position: 206,991,724

Strand: plus

DR: N/A

ENDOfsite: N/A

Empty site:

```
CTTAACAATATTAGAATGTTTCATCCTTTTTGAGTGCAAACAGAATCTTTACCAAGACAGACCATATTCTGGG
CCGATAAACTGGAAGTAGCTCAAATGTCCATCAGAAGGAGAATGGGCAAACAAATTGCGGCATAGCCATATA
ATGGCTACTATTAAGCATTAGAAAGAAATTAATTGGTCAA↑↓TACATGCAACACCATGGACAAATCTCAAGA
TAATTATGTTTCAGTTGAAACCAGACAAAAAAGACTACATACTGTATGATTCTATTTACATAATATACTAGAA
AACCCAAATTAGTCTATACTTTTCGGAAAGCAGATTAGTGCTTGCCTGAGCAGGGTTGGAGTGGGGATGTGGG
TGAGAGGGTAGGAGAAAAGGATTA
```

Filled site:

```
CTTAACAATATTAGAATGTTTCATCCTTTTTGAGTGCAAACAGAATCTTTACCAAGACAGACCATATTCTGGG
CCGATAAACTGGAAGTAGCTCAAATGTCCATCAGAAGGAGAATGGGCAAACAAATTGCGGCATAGCCATATA
ATGGCTACTATTAAGCATTAGAAAGAAATTAATTGGTCAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCC
AGCACTTTGGGAGGCCGAGGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAA
ACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTA
CTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCAC
TGCACTCC...[NEOcassette][A tail and 3' unsequenced]
```

LINE-1 flanking the insertion site.

CLONE 166

[TZ5]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 10,342,071

Strand: minus

DR: N/A

ENDOSite: N/A

Empty site:

```
GATTTTTTTTTTCAGTTGGATAAAAATAAAAATGAAGGTTTGGGCTAGTTGTGAAAGGCTGATTTTAGAGGCAG
TTCTGTGTGTAAACATATTGGCTAAAAGGGGTATCCTCCAGTTTTTCTGTAAATTAATTTTTATTTAAAATAA
AAGCACAGTGGGTTTCTCTTAGAGCACTAACCTGCTCTTTAACAAAAATTGTAAAGGGCTATAAAAAGTCTA
TAAAAATCTTACCTTGTGGTCAAATATTTAAAATTGAGTAAATATGTCTATAAGGATTTATT↑↓AATTCGGTT
TAACATTCATAGTACACTAATGTAAAGGTGAAATTTGGCTTATTTGGTATAAAAATTATACAGAAAATATTG
TCAAATACGAAATGGTGTCTGGCTTTCTTTGGGCTATATTTGTGTAGATATGTTTTTGGTATGTGTTCCAAG
GTTGTGGGAGACTCCTACAATCCTGATATGTTTTAGTGTACATTATC
```

Filled site:

```
GATTTTTTTTTTCAGTTGGATAAAAATAAAAATGAAGGTTTGGGCTAGTTGTGAAAGGCTGATTTTAGAGGCAG
TTCTGTGTGTAAACATATTGGCTAAAAGGGGTATCCTCCAGTTTTTCTGTAAATTAATTTTTATTTAAAATAA
AAGCACAGTGGGTTTCTCTTAGAGCACTAACCTGCTCTTTAACAAAAATTGTAAAGGGCTATAAAAAGTCTA
TAAAAATCTTACCTTGTGGTCAAATATTTAAAATTGAGTAAATATGTCTATAAGGATTTATTGGCCGGGCGCG
GTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCGAGAC
CATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAG
CGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTG
CAGTGAGCCGAGATCCCGCCACTGCACTCC...[NEOcassette][A tail and 3'
unsequenced]
```

LTR flanking the insertion site.

CLONE 167

[GG9]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 56,240,461

Strand: plus

DR: AAAATTCTTAGTTTT

ENDOsites: TTTT/AG

Empty site:

```
AAAAGAAAGTAAATATTTTAAAGCCTAAATTTTTTTTAAAGTTAATGTTCAAATACTGAACTGTACTAAAA
ATCACAATAAATCGCCATTCTTCAAATAACGTTCCCTTTATGATTATGGGATTTATATAAACTAAATATTT
GCAGAAGAAATTTCTTCAACTATATTGTAGGGAGAATGTCATCTTTTCAGATATGCTGGTTGGGAATAATCA
CTACACTAGTGGAAATGTTTGCACAAGCCAGCATTGAAAAGAGACGAGATTTCCCTTTATCAGCTTCTCAA
AATGACAACACT↑AAAATTCTTAGTTTT↓GGGACAGGACAAAGGTCTAAGTCTGTCATTTTTTAAATGCCACAT
TTTTGAAATAACAATCAGGTGTTTCACTTTAAGTGTATTAATTTAAGTGTATTAATATTTAATATAAATAT
TGAAATATAATTAGTTTATTTCAGAAGCAAACCCCAATCCTAATTTTCAGCATATCTTAATAGAAAGCCTGGG
TTTATGAATCC
```

Filled site:

```
AAAAGAAAGTAAATATTTTAAAGCCTAAATTTTTTTTAAAGTTAATGTTCAAATACTGAACTGTACTAAAA
ATCACAATAAATCGCCATTCTTCAAATAACGTTCCCTTTATGATTATGGGATTTATATAAACTAAATATTT
GCAGAAGAAATTTCTTCAACTATATTGTAGGGAGAATGTCATCTTTTCAGATATGCTGGTTGGGAATAATCA
CTACACTAGTGGAAATGTTTGCACAAGCCAGCATTGAAAAGAGACGAGATTTCCCTTTATCAGCTTCTCAA
AATGACAACACTAAAATTCTTAGTTTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGC
CGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTA
AAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGC
... [NEOcassette] [Atail] AAAATTCTTAGTTTTGGGACAGGACAAAGGTCTAAGTCTGTCATTTTTT
AAATGCCACATTTTTGAAATAACAATCAGGTGTTTCACTTTAAGTGTATTAATTTAAGTGTATTAATATTT
AATATAAATATTGAAATATAATTAGTTTATTTCAGAAGCAAACCCCAATCCTAATTTTCAGCATATCTTAATA
GAAAGCCTGGGTTTATGAATCC
```

No repetitive sequences in the immediate proximity.

CLONE 168

[LZ67]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 69,430,365

Strand: plus

DR: AAGAAAAAGGAAG

ENDOsites: TCTT/AA

Empty site:

```
GCCATTGATTTTCAGAGAATTTTAATTACCTCTTAACCTGTAGGAAAACTTTTTCTCAGAATTATTTTATGT
TCAAACCAGCAATGACCAAAAAGAACCAAGTTATCTACATATTGAAGTCTTACATGAAAGTCGTTTTTCTTGC
ACAATAACAATTAAGTTTACATTAGCTCTTTATGTTGTGTAATGGACATCTTCAGAATTCCTATCTGACA
CCAGGTATAAGGTCCCAACAGATCTGGAGGGAAAGTCTCCTGACCTTTTATAAATTTTTGTAAGAAACGGAT
CATTTT↑AAGAAAAAGGAAG↓AAAAAAGAGCAAATTATAGGAAATGTTCCCTAGAGGGTGTGATTTATTCTGG
CACAGCCATCTTCCCTGGATGTTTGAATTCTCTGTAGTATTCATTTCAGTTCTCACCCCTTGAAGCCTCTCCT
TTGCTGTCTCATTGGAGGGGGACATGAGTACTTAGAATTTTTGGCTGAGTTAGCTGAATTTAAGGAATAAAA
AGTTC
```

Filled site:

```
GCCATTGATTTTCAGAGAATTTTAATTACCTCTTAACCTGTAGGAAAACTTTTTCTCAGAATTATTTTATGT
TCAAACCAGCAATGACCAAAAAGAACCAAGTTATCTACATATTGAAGTCTTACATGAAAGTCGTTTTTCTTGC
ACAATAACAATTAAGTTTACATTAGCTCTTTATGTTGTGTAATGGACATCTTCAGAATTCCTATCTGACA
CCAGGTATAAGGTCCCAACAGATCTGGAGGGAAAGTCTCCTGACCTTTTATAAATTTTTGTAAGAAACGGAT
CATTTTTAAGAAAAAGGAAGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGC
GGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAA
AAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGG
AATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassett
e] [Atail] AAGAAAAAGGAAGAAAAAAGAGCAAATTATAGGAAATGTTCCCTAGAGGGTGTGATTTATTCT
GGCACAGCCATCTTCCCTGGATGTTTGAATTCTCTGTAGTATTCATTTCAGTTCTCACCCCTTGAAGCCTCTC
CTTTGCTGTCTCATTGGAGGGGGACATGAGTACTTAGAATTTTTGGCTGAGTTAGCTGAATTTAAGGAATAA
AAAGTTC
```

No repetitive sequences in the immediate proximity.

CLONE 169

[LZ21]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 70,318,707

Strand: plus

DR: AGAAGTATATGCA

ENDOsites: TTCT/AT

Empty site:

```
CAGCAAGGCATAGGACGAATTGCTACTTGGAAAGATGAAAAGCAAGAATAGCAGTTGGCAAACCTACCTCAAG
GAAGAAGCAGGTTCTAATATAGGCTGGCAAGTGGTATCAATAGGAATGCAAGGAAAGGAACCTAGGCAATGGC
AGAGATATTGAAACTGGGTGTGGAGGCCAGAGGAAGATGTAAAAAGGGGGAGCAATGAATTCAGGCACGGTG
AT↑AGAAGTATATGCA↓GACAGAAATAGTCAACAAGTAGCTAGAAATAAGACTGAGGTGAAGTCAAAGCTGC
ATAGGAACAGAGGTAAATGAGGGGAAGGGACTAGAGATGGAGTTTTGGGGTATTTTCGTTGGGTTGAAGGACC
TAGTTTTCTTATTCACTGGGTACCCTAGTACCTGTCACCATACTGACACATAGCAGGGACTCAGTAAATAT
T
```

Filled site:

```
CAGCAAGGCATAGGACGAATTGCTACTTGGAAAGATGAAAAGCAAGAATAGCAGTTGGCAAACCTACCTCAAG
GAAGAAGCAGGTTCTAATATAGGCTGGCAAGTGGTATCAATAGGAATGCAAGGAAAGGAACCTAGGCAATGGC
AGAGATATTGAAACTGGGTGTGGAGGCCAGAGGAAGATGTAAAAAGGGGGAGCAATGAATTCAGGCACGGTG
ATAGAAGTATATGCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGC
GGATCACGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAA
AAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGG
GGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [Atai
1]AGAAGTATATGCAGACAGAAATAGTCAACAAGTAGCTAGAAATAAGACTGAGGTGAAGTCAAAGCTGCAT
AGGAACAGAGGTAAATGAGGGGAAGGGACTAGAGATGGAGTTTTGGGGTATTTTCGTTGGGTTGAAGGACCTA
GTTTTCTTATTCACTGGGTACCCTAGTACCTGTCACCATACTGACACATAGCAGGGACTCAGTAAATATT
```

L2 at the 3'.

CLONE 170

[GG1]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 101,475,178

Strand: minus

DR: AAAAAAATAAAGTAGG

ENDOsites: TTTT/AA

Empty site:

AACAACCTTATATTCTTGAGGCGTTGATTATGCAACCTTACTTAGTTTTACTAAATATCTTATTGAGCAGGAA
AATTACACTATGGAGGGCAAGGGCTGCTATATTTAAATCCAAATAAACAGGACGGGGCGTGCACACTGACGT
GTAACATGATCACCCCTTAATGACTTAAACAACCTAATGTCAGTAATTAGGACTATTTTCAGAGTACGGAGAAG
GTGATT **↑ AAAAAAATAAAGTAGG ↓** GAGTAATTAATTTACATAATAGTCACACTGGGACCTATTGTGAGATC
TGACGTTAATGATGATTTTCTTTTCTGTAATTAATTTTTATGTGCAGTCCTGGGAACCTCCCCGCCACCTTCT
GAATTGCTCCTTGCTCAGCACCCCTAACTCTTCCAGCCCCACCACATCAGGCCAGCCTTCCCCATAACGAAA
GGGAACAC

Filled site:

AACAACCTTATATTCTTGAGGCGTTGATTATGCAACCTTACTTAGTTTTACTAAATATCTTATTGAGCAGGAA
AATTACACTATGGAGGGCAAGGGCTGCTATATTTAAATCCAAATAAACAGGACGGGGCGTGCACACTGACGT
GTAACATGATCACCCCTTAATGACTTAAACAACCTAATGTCAGTAATTAGGACTATTTTCAGAGTACGGAGAAG
GTGATTAAAAAAATAAAGTAGG**GGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGA**
GGCGGGCGGATCACGAGGTGAGGATCGAGACCATCCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAA
AAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCA
GGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA... [NEOcassette] [Atail] AAA
AAAAATAAAGTAGGGAGTAATTAATTTACATAATAGTCACACTGGGACCTATTGTGAGATCTGACGTTAATG
ATGTATTTCTTTTCTGTAATTAATTTTTATGTGCAGTCCTGGGAACCTCCCCGCCACCTTCTGAATTGCTCCT
TGCTCAGCACCCCTAACTCTTCCAGCCCCACCACATCAGGCCAGCCTTCCCCATAACGAAAGGGAACAC

No repetitive sequences in the immediate proximity.

CLONE 171

[LZ29]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 189,995,636

Strand: plus

DR: AGAAATATAAGTGTT

ENDOsites: TTCT/AA

Empty site:

```
GCCACCATATTTAAATAGCCACCTTGGCTCTGAAAAGATTTCAAACAGATCTAGCTAGCATCTAGTATCTCT
TCTACACAGATAAGTTTCCATTCCATTTTACAAATGAAATATTAGAGTATAAACAGTCTACAAACCTACCT
TTTACACAAGTGCCTGTGAAAAATTTAGTTTATAAAGCCCAAGTCACATCACAAATGCTTAATATATTTATT
TTTATTTATTCAACACATTATTGACTACCTTCTATATCTTAGGCACCATATCAATGTT↑AGAAATATAAGTG
TT↓AACAGACAGAAAAGATTTAGTCCTTAAAGAGCTTATACTCTAGTGAAAGAAACAGGAAATAAGCAAAT
ATTATACTTACTAACCATAACAATATGTCTAGTAGCAAGAAGTGTTACCAAAAATTCAGCAAGGTAAAGACAA
AGAGCTCCAGGAGAAAAGTGAATTGAGAGGAGAGCGGGGACTGAGCTTAATTTTGAATA
```

Filled site:

```
GCCACCATATTTAAATAGCCACCTTGGCTCTGAAAAGATTTCAAACAGATCTAGCTAGCATCTAGTATCTCT
TCTACACAGATAAGTTTCCATTCCATTTTACAAATGAAATATTAGAGTATAAACAGTCTACAAACCTACCT
TTTACACAAGTGCCTGTGAAAAATTTAGTTTATAAAGCCCAAGTCACATCACAAATGCTTAATATATTTATT
TTTATTTATTCAACACATTATTGACTACCTTCTATATCTTAGGCACCATATCAATGTTAGAAATATAAGTGT
TGGCCGGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCA
GGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCG
GGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAG
GCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC...[NEOcassette] [A tail]AGAAATATA
AGTGTTAACAGACAGAAAAGATTTAGTCCTTAAAGAGCTTATACTCTAGTGAAAGAAACAGGAAATAAGCA
AATATTATACTTACTAACCATAACAATATGTCTAGTAGCAAGAAGTGTTACCAAAAATTCAGCAAGGTAAAGA
CAAAGAGCTCCAGGAGAAAAGTGAATTGAGAGGAGAGCGGGGACTGAGCTTAATTTTGAATA
```

L2 flanking the insertion site.

CLONE 173

[LZ52]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 210,800,221

Strand: minus

DR: AAAAGTGATAGGT

ENDOsites: TTTT/AA

Empty site:

```
AACAGGGCTTCAAATTGAGTGTCTTCATGGACTGGTAACTGGGTTGGGATATCGCACTCATTCTGTCCATGA
ACTACCAAGGTTTTAGTACCTACAGATGATAAAAATAATAACAAACTGACTTTTACTATAGAAAATTTGTAT
TTTAAAGCATAAAAATATTTAAATATTATCAATAAGCTGATGTTTTTACTGTTAATTACAATTCTTAATTCAT
AGTTACATATATATTTTTATTTATTTATTTTTTAACTGGAAATTTAAGATTAATATACATATATTTTTAAATAT
ATTCACTTATT↑AAAAGTGATAGGT↓ATGGAGTTCCTCAATACTTTTTAAAAATTTTTATTTTTTAGTAGAGAC
GAGGTTTCGCCATGTTGTCCAAGCTGGTCTCAAACCTCTGACCTCAAGCAATCCACCTGCCTCGGCCTCCCA
AAGTGCGGAGATTACAGGAGTGAGCCACCGCGCTAGGCCAAGTTCTCAATACTTCTACCTGTCTTTTACATG
CATAATTGTA
```

Filled site:

```
AACAGGGCTTCAAATTGAGTGTCTTCATGGACTGGTAACTGGGTTGGGATATCGCACTCATTCTGTCCATGA
ACTACCAAGGTTTTAGTACCTACAGATGATAAAAATAATAACAAACTGACTTTTACTATAGAAAATTTGTAT
TTTAAAGCATAAAAATATTTAAATATTATCAATAAGCTGATGTTTTTACTGTTAATTACAATTCTTAATTCAT
AGTTACATATATATTTTTATTTATTTATTTTTTAACTGGAAATTTAAGATTAATATACATATATTTTTAAATAT
ATTCACTTATTTAAAAGTGATAGGTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCC
GAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAA
AAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCA
GGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcas
sette] [Atil]AAAAGTGATAGGTATGGAGTTCCTCAATACTTTTTAAAAATTTTTATTTTTTAGTAGAGA
CGAGGTTTCGCCATGTTGTCCAAGCTGGTCTCAAACCTCTGACCTCAAGCAATCCACCTGCCTCGGCCTCCC
AAAGTGCGGAGATTACAGGAGTGAGCCACCGCGCTAGGCCAAGTTCTCAATACTTCTACCTGTCTTTTACAT
GCATAATTGTA
```

Alu flanking the insertion site.

CLONE 174

[GG26]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 213,446,348

Strand: plus

DR: AAAGAAGCACAGCA

ENDOsites: CTTT/AG

Empty site:

```
TATTCCATCATGTACATATACTACTTGTAAAAATCCACTCACCTGTTGATGAGCACTTCAGTTGCTTCCAT
ATCTTGGCTCTTTTGAATAATGCTGCAATGGAAAAGAGAGGATAGTGGGAGGGATCTTTAGAGACCCAAACA
AAAATACGTCGACCCTAAAACCTCTTGTAGGCAAATTTGCTATGCTTGTACATGTGAGAGCAAACCTATCTGT
TCTAGCATACTGAGAATCTACGTGTGGTAACTTCATAAACTTTAGTCAAAGCTGCTGTCTGGAGAGTAAAAT
AATCTTCT↑AAAGAAGCACAGCA↓AAGGAAATTTAAAACATTTAAATCTTTTTGGCAATCCATTTCAATCGT
TTTTTTGATTCACTGAATTATTGGGATATTAATAGAAATTTAATATTTGTTCTTGACTTTTTGGAAAATCT
TGTGGTAAAGTAAGAATAGAAGAAAATTGCCTTAATATGATTAACAATGATCATTCTCAATAATAATAAAGT
TATACTGA
```

Filled site:

```
TATTCCATCATGTACATATACTACTTGTAAAAATCCACTCACCTGTTGATGAGCACTTCAGTTGCTTCCAT
ATCTTGGCTCTTTTGAATAATGCTGCAATGGAAAAGAGAGGATAGTGGGAGGGATCTTTAGAGACCCAAACA
AAAATACGTCGACCCTAAAACCTCTTGTAGGCAAATTTGCTATGCTTGTACATGTGAGAGCAAACCTATCTGT
TCTAGCATACTGAGAATCTACGTGTGGTAACTTCATAAACTTTAGTCAAAGCTGCTGTCTGGAGAGTAAAAT
AATCTTCTAAAGAAGCACAGCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGA
GGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAA
AAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCA
GGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGC... [NEOcassette] [A tail]AAAGAAGCACAGCAA
AGGAAATTTAAAACATTTAAATCTTTTTGGCAATCCATTTCAATCGTTTTCTTTGATTCACTGAATTATTGG
GATATTAATAGAAATTTAATATTTGTTCTTGACTTTTTGGAAAATCTTGTGGTAAAGTAAGAATAGAAGAAA
ATTGCCTTAATATGATTAACAATGATCATTCTCAATAATAATAAAGTTATACTGA
```

LINE-1 at the 3'.

CLONE 175

[TZ1]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 230,982,473

Strand: minus

DR: GAACTGGGCAGAGCC

ENDOsites: GTTC/AA

Empty site:

```
AAAAAGAAGCTGGGCAGAGCCAACCATAGCTCAGCAAGGACTACTGCCACTCTAGATTCCACCTCGGAGGGCA
GGGCATAGCAAAAACAAAAGGCAGCAGACAGCTTCTGCAGACTTAAATGTCCCTGTCTGACAGCTCTGAAGAG
AGCACTGGTTGTTTTAGCACAGCGTTCAAGCTCTGAGAACGGACAGACTGCCTCCTCAAGTGGGTCCCTGAA
CCCCATGTAGCCTGACTGGGAGATACCTCCAGTAGGGGCCAACAGACACTTCAAACAGGAGGGTGCCTGTC
TGGGACAAAGCTT↑GAACTGGGCAGAGCC↓AACCATAGCTCAGCAAGGACTACTGCCACTCTAGATTCCACC
TCGGAGGGCAGGGCATAGCAAAAACAAAAGGCAGCAGACAGCTTCTGCAGACTTAAATGTCCCTGTCTGACAG
CTCTGAAGAGAGCACTGGTTGTTTTAGCACAGCGTTCAAGCTCTGAGAACGGACAGACTGCCTCCTCAAGTG
GGTCCCTGAACCCC
```

Filled site:

```
AAAAAGAAGCTGGGCAGAGCCAACCATAGCTCAGCAAGGACTACTGCCACTCTAGATTCCACCTCGGAGGGCA
GGGCATAGCAAAAACAAAAGGCAGCAGACAGCTTCTGCAGACTTAAATGTCCCTGTCTGACAGCTCTGAAGAG
AGCACTGGTTGTTTTAGCACAGCGTTCAAGCTCTGAGAACGGACAGACTGCCTCCTCAAGTGGGTCCCTGAA
CCCCATGTAGCCTGACTGGGAGATACCTCCAGTAGGGGCCAACAGACACTTCAAACAGGAGGGTGCCTGTC
TGGGACAAAGCTTGAAGCTGGGCAGAGCCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGA
GGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTA
CTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTG
AGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGAGTGGCCGAGATCCCGCC... [NEOcassette
] [Atail] GAACTGGGCAGAGCCAACCATAGCTCAGCAAGGACTACTGCCACTCTAGATTCCACCTCGGAG
GGCAGGGCATAGCAAAAACAAAAGGCAGCAGACAGCTTCTGCAGACTTAAATGTCCCTGTCTGACAGCTCTGA
AGAGAGCACTGGTTGTTTTAGCACAGCGTTCAAGCTCTGAGAACGGACAGACTGCCTCCTCAAGTGGGTCCC
TGAACCCC
```

LINE-1 flanking the insertion site.

CLONE 176

[LZ17]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 238,628,075

Strand: plus

DR: AGAACTGCTGTATT

ENDOsites: TTCT/GA

Empty site:

```
AAACCGTGTGTGTCTTAGAATCCACAATACATAGTAGAAAGAGTGACATCCTTTTTCGGATATTGTGTGGAAA
TGATTTATCTTCTGATTCCCGAAGAGAGTGAGGTTCTGAAAGTAAGGGGAAAAGTAGATTGATTTAAATGGA
TCAGATGATAGAGGTTAGAAAAAATTAAGACCCAGCTTCTGCCCAAACACTGTTTTTACAACAAAAATGA
AGTATGCAAATTATTTTTGTGCTTAAGAACCTCCACCCCAGAAAAAACATTTTTACCCACTGGTTTAATT
AAAGCCTTTAAATGAAGGCAAAGAAAATATTTATGTGACATTTAGATC ↑AGAACTGCTGTATT↓ ATGGTGCA
GTGGGACTACCTAAGCTTTTTTAAAGCACTTTTCCTGTGTCCATCTGTCTCTAACCTTTTCATGCTGTTTCT
TCATTGTTAGGAAGACAGTGAGCGCTACTCTCGTAGATCCAGAAGAAACACATCGGTTAGTACCGTGTTCAT
TCATTACTTGGGCAATTTGATTGAATTCTAATTTATGCTTGCAGTGGC
```

Filled site:

```
AAACCGTGTGTGTCTTAGAATCCACAATACATAGTAGAAAGAGTGACATCCTTTTTCGGATATTGTGTGGAAA
TGATTTATCTTCTGATTCCCGAAGAGAGTGAGGTTCTGAAAGTAAGGGGAAAAGTAGATTGATTTAAATGGA
TCAGATGATAGAGGTTAGAAAAAATTAAGACCCAGCTTCTGCCCAAACACTGTTTTTACAACAAAAATGA
AGTATGCAAATTATTTTTGTGCTTAAGAACCTCCACCCCAGAAAAAACATTTTTACCCACTGGTTTAATT
AAAGCCTTTAAATGAAGGCAAAGAAAATATTTATGTGACATTTAGATCAGAACTGCTGTATT GGCCGGGCGC
GGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGA
CCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAG
CGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTG
CAGTGAGCCGAGATCCCGCCACTGCA... [NEOcassette] [Atail] AGAACTGCTGTATTATGGTGCAG
TGGGACTACCTAAGCTTTTTTAAAGCACTTTTCCTGTGTCCATCTGTCTCTAACCTTTTCATGCTGTTTCTT
CATTGTTAGGAAGACAGTGAGCGCTACTCTCGTAGATCCAGAAGAAACACATCGGTTAGTACCGTGTTCAT
CATTACTTGGGCAATTTGATTGAATTCTAATTTATGCTTGCAGTGGC
```

No repetitive sequences in the immediate proximity.

CLONE 177

[GG12]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 2

5' position: 238,634,801

Strand: minus

DR: AAATAAATTTAATA

ENDOsites: ATTT/CA

Empty site:

```
CCGTGAAAATGTGCATAATAATAAATACATTACAAAGCCATCGTGAGGATTAATGAGATGAAAATGAGTAT
CTCAAGCACCTAGAACAGTGCCTCATGAATCACCAGCTGACTGGGTGGATACATGAATCCACATGGAAGGG
GCCTGGCATATGGGAGGTGCTAAACATGGTTCCTTATCCGGGGGACGGGTGCTGTATAGCACATATTTTGCA
GCCATGACATTAAGTAGAAAAAATAAATTGAATTTCCAGACAGATTATAAATCCAGATTCATAAACTTTG
ACTATCAAACATATATATTTATCTTTGCTGTAACCTCAAACAAATCAAGAAATCAATTTGAAGTTCTGAAACA
AAAGGAGTGTAGAAATCCTTCCATATTAATTTGAGAACTCTATGAGTAACATTAACATTTCTG↑AAATA
AATTTAATA↓GTAAAAATCTTTGGAGATTGGCAAGAGTTTTACTCAGACTAATTTCTTTTCATGTCTTCAGC
AACAAGATTATTTGACATGAAAATGCATGTCAAGGACTTGCAAATTTTAGATCTCAATCCCTTGTTATGTCT
TCAGAACTAGATTCCAGAAGAAATTAATAAATAATGAAGGCTAATGTTAATCACTTTTAGATGA
```

Filled site:

```
CCGTGAAAATGTGCATAATAATAAATACATTACAAAGCCATCGTGAGGATTAATGAGATGAAAATGAGTAT
CTCAAGCACCTAGAACAGTGCCTCATGAATCACCAGCTGACTGGGTGGATACATGAATCCACATGGAAGGG
GCCTGGCATATGGGAGGTGCTAAACATGGTTCCTTATCCGGGGGACGGGTGCTGTATAGCACATATTTTGCA
GCCATGACATTAAGTAGAAAAAATAAATTGAATTTCCAGACAGATTATAAATCCAGATTCATAAACTTTG
ACTATCAAACATATATATTTATCTTTGCTGTAACCTCAAACAAATCAAGAAATCAATTTGAAGTTCTGAAACA
AAAGGAGTGTAGAAATCCTTCCATATTAATTTGAGAACTCTATGAGTAACATTAACATTTCTGAAATAA
ATTTAATAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCAC
GAGGTCAAGGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATAACAAAAA
TTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAAC
CCGGGAGGCCGAGCTTGACAGTGAGCCGAGATCCCGCCACTGCA... [NEOcassette] [Atail] AAATAA
ATTTAATAGTAAAAATCTTTGGAGATTGGCAAGAGTTTTACTCAGACTAATTTCTTTTCATGTCTTCAGCAA
CAAGATTATTTGACATGAAAATGCATGTCAAGGACTTGCAAATTTTAGATCTCAATCCCTTGTTATGTCTTC
AGAACTAGATTCCAGAAGAAATTAATAAATAATGAAGGCTAATGTTAATCACTTTTAGATGA
```

MIR at the 5'.

CLONE 178

[TZ8]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 24,844,836

Strand: minus

DR: N/A

ENDOSite: N/A

Empty site:

```
AAGCTTCTAAAGAGACTGATTCTATTGCAGTAGAGTACATATATACATATATTCCATATACACATAATATAT
AACATCGTAAACATTACTTATGTGTAATCTGATGAAAGATTTGTATTCTGAATATATAAAGAAGCTCTCAAAT
TCAAATAAAAAGATAAAAAAGCAAATTA AAAAAGCAGATAACA ACTATAAACTGAACAAATCCAAATCAACA
ATCTTCAGCCTCTGGAGAGTCAAAAAAGGAAGCAGATTTAGGAGGGGAAATGAAACTTTGAAGAAGCACTTG
GCATAGGATACATTTTTCCATTTTTATAAATTTTGCCTGAGAGCAGACAAGTGTTAAGATATGGCAGGGGAC
ATTTAAATTCTAGTAGA↑↓AAACCTGCCCCCTTTTTTTTTTTTTTTTTTTCTGAGACAGGGTCTTGCTCTG
TCGCTCAGGCTGGAGTGCAGTGGCATGGTGTGATCATGGCTCACTGCAGCCTGACATCCTGAGCTCAAGCGA
TCCTCCCGCCTCAGCCAATCATGTAGCTGGGAATACAGGCATGTGCCACCAGGCCAGCTAATTTTTCTGTAA
TTTT
```

Filled site:

```
AAGCTTCTAAAGAGACTGATTCTATTGCAGTAGAGTACATATATACATATATTCCATATACACATAATATAT
AACATCGTAAACATTACTTATGTGTAATCTGATGAAAGATTTGTATTCTGAATATATAAAGAAGCTCTCAAAT
TCAAATAAAAAGATAAAAAAGCAAATTA AAAAAGCAGATAACA ACTATAAACTGAACAAATCCAAATCAACA
ATCTTCAGCCTCTGGAGAGTCAAAAAAGGAAGCAGATTTAGGAGGGGAAATGAAACTTTGAAGAAGCACTTG
GCATAGGATACATTTTTCCATTTTTATAAATTTTGCCTGAGAGCAGACAAGTGTTAAGATATGGCAGGGGAC
ATTTAAATTCTAGTAGAGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGGCG
GGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAA
ATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAA
TGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [A tail
and 3' unsequenced]
```

LINE-1 at the 5'; Alu at the 3'.

CLONE 179

[LZ79]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 33,345,902

Strand: minus

DR: AAGAATATACCAT

ENDOsites: TCTT/AG

Empty site:

```
ATTTCTTTTATAAAGTTAAATATCTGTATAGCCTATAACCCTCAGAAATTCTACTTTTCAGAGAAAATTGTGTA
CTTGTGCACCAGGAGACATCTACGAGGATGTCCAAAGCAGCACTGCTCTTACTGAAAAAACACTGGAAACAA
CCAAAATACTCAGTAAAGGGGGAAAAAATAAAATTTTAGTACATTACACAGTAGAATATTATACAGCAGTA
AAAATGAATGAGCAACAGCCAATCAGAGCAACAAGAATCACCTTTCATAACAGAATTTTGAGTGAAAAACAT
TTCT↑AAGAATATACCAT↓ATAAAGACCAATCAGCACTGCATCAGGTAAGATTTAATAAGCGATAAAAGAAA
TCACTCTAGCTATTTTCATGCATAAGGGATTTAGTACAGAGAAGTAGACACTTACAAAATCATTGGGAGGCTG
AAGAAATGAGCCCAAAGAAGGGCATGGAAGGTGAGATGTGTAATATCTGTGTCTGTCTCCCCACATTATG
CTA
```

Filled site:

```
ATTTCTTTTATAAAGTTAAATATCTGTATAGCCTATAACCCTCAGAAATTCTACTTTTCAGAGAAAATTGTGTA
CTTGTGCACCAGGAGACATCTACGAGGATGTCCAAAGCAGCACTGCTCTTACTGAAAAAACACTGGAAACAA
CCAAAATACTCAGTAAAGGGGGAAAAAATAAAATTTTAGTACATTACACAGTAGAATATTATACAGCAGTA
AAAATGAATGAGCAACAGCCAATCAGAGCAACAAGAATCACCTTTCATAACAGAATTTTGAGTGAAAAACAT
TTCTAAAGAATATACCATGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAA
TACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAAT
GGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCCA... [NEOcassette] [Atail]AA
GAATATACCATATAAAGACCAATCAGCACTGCATCAGGTAAGATTTAATAAGCGATAAAAGAAATCACTCTA
GCTATTTTCATGCATAAGGGATTTAGTACAGAGAAGTAGACACTTACAAAATCATTGGGAGGCTGAAGAAATG
AGCCCAAAGAAGGGCATGGAAGGTGAGATGTGTAATATCTGTGTCTGTCTCCCCACATTATGCTA
```

LINE-1 at the 5'; LTR at the 3'.

CLONE 180

[TZ12]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 120,085,269

Strand: minus

DR: N/A

ENDOSite: N/A

Empty site:

```
CACTTGTAGATAGCTTCATCCATGAAATCCACATTTCTTAGTAAAAGTGATAGAGTCCCCTCAGAAATTTCA
GCCTGGTCCACAGATACTCTTCCCTCATAACAAGGAATTTTGATCTTCTAGTTGCTCTGTGTTATTGTGAAAC
TGGTAAACCAACTTCGAGAAAACCTTCAAAAAAATCAAGGTACTTGAAAAGGAGGTAATATTCTTTATTATCC
TCTACCTCATATGCCTGTTTGATGTCTTCTCTTTCCCAAGAAAACCTCAAGATTTTCAGTGCCCTTCACAAAG
GAGAAATGACAGGAGAGGGTAACATCAGTGAATGGGTGGGCCCCGAGCTCCTCTGTAGACACCGAGAATGTC
AAAGAAGAAATGAAGTTA↑↓ATAAAGACCAATCAGCACTGCATCAGGTAAGATTTAATAAGCGATAAAAAGAA
ATCACTCTAGCTATTTTCATGCATAAGGGATTTAGTACAGAGAAGTACACTTACAAAATCATTGGGAGGCT
GAAGAAATGAGCCCAAAGAAGGGCATGGAAGGTGAGATGTGTAATATCTGTGTCTGTCCTCCCCACATTAT
GCTA
```

Filled site:

```
CACTTGTAGATAGCTTCATCCATGAAATCCACATTTCTTAGTAAAAGTGATAGAGTCCCCTCAGAAATTTCA
GCCTGGTCCACAGATACTCTTCCCTCATAACAAGGAATTTTGATCTTCTAGTTGCTCTGTGTTATTGTGAAAC
TGGTAAACCAACTTCGAGAAAACCTTCAAAAAAATCAAGGTACTTGAAAAGGAGGTAATATTCTTTATTATCC
TCTACCTCATATGCCTGTTTGATGTCTTCTCTTTCCCAAGAAAACCTCAAGATTTTCAGTGCCCTTCACAAAG
GAGAAATGACAGGAGAGGGTAACATCAGTGAATGGGTGGGCCCCGAGCTCCTCTGTAGACACCGAGAATGTC
AAAGAAGAAATGAAGTTAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCG
GGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAA
ATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAA
TGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [A tail
and 3' unsequenced]
```

LTR at the 3'.

CLONE 181

[LZ46]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 124,745,971

Strand: plus

DR: ATGAGTATGT

ENDOsites: TCAT/AA

Empty site:

```
AAAAAAGAAAAACTATGTTAAACATGAGGCTCAATACTGAGATAAACTGGGTAGGTTGTACCTACTTCCACT
CCAAGTACCTGGCATTAGAGGAATGGCATTGTTGGCTTGATGTCTTTTCCCCTTACCCACTATT↑ATGAGTAT
GT↓AACTAGCTGGCTATGCACATTGATTTATGTCTACTTTGAGTGACTTCCGAGTGTTAAGCTGGGTATGTG
GCACTCACATGAGGAAAGGTCTAAGAGAGGAGAGGAAGCTGCTGTCCTGTAGAAATGCAGCCAGGAGAGATC
TGGTCTGAGGAATTTCTTCTCCTAGAAAGGCGTGGTCAGCTCTCCCATCTCCAAAGCAG
```

Filled site:

```
AAAAAAGAAAAACTATGTTAAACATGAGGCTCAATACTGAGATAAACTGGGTAGGTTGTACCTACTTCCACT
CCAAGTACCTGGCATTAGAGGAATGGCATTGTTGGCTTGATGTCTTTTCCCCTTACCCACTATTATGAGTATG
TGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCA
GGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGC
CGGGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGG
AGGCCGAGCTTGCAGTGAGCCGAGATCCCGCC...[NEOcassette][Atail]ATGAGTATGTAAGTATG
TGGCTATGCACATTGATTTATGTCTACTTTGAGTGACTTCCGAGTGTTAAGCTGGGTATGTGGCACTCACAT
GAGGAAAGGTCTAAGAGAGGAGAGGAAGCTGCTGTCCTGTAGAAATGCAGCCAGGAGAGATCTGGTCTGAG
GAATTTCTTCTCCTAGAAAGGCGTGGTCAGCTCTCCCATCTCCAAAGCAG
```

No repetitive sequences in the immediate proximity.

CLONE 182

[LZ69]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 15,0736,931

Strand: minus

DR: AAGAGAATGTTTACTACA

ENDOsites: TCTT/GC

Empty site:

```
CAACTCATAGAAGAGCAAATCCAAATTATAAATACATGAAGCATATGAAAAATGCTCACATACTAGTAAGTA
TGAAAATTCAGTAAAGTAACATAGACTAGTATCCATTAAAGAGACTAACAAGACTTATTGGCAGGGGTAAAA
GGGAGAGGATACTCAAACATTGATGATGAAAATGTGAGTTGCTACAGACTTTTTGAAAAATCAATCTGGCAA
TATATAGTAAAATGAAAAATATAAATACTCTGCTTTAGTAATTCTACTCCTGGAAACCTAACCCATGGAAAT
AAAGGATAAAGGATAAAAAATATCTTTGC↑AAGAGAATGTTTACTACA↓GATGTGTGCACAACAAAAACAAT
TAAAACACAGCTGGAAACAAAAGGAATACATATTAGTAAAGGAATGGTTGAATAAATGGTAAAATATCCTCT
TCAAGGAAAGTTATGCTGCAAATTTGAAAAAATAAATTAGAATTAATCAGATAACAAGGATTTCCATGAA
GTTTTGTTGAATAAGGAAAGGAAAATGCAGAAA
```

Filled site:

```
CAACTCATAGAAGAGCAAATCCAAATTATAAATACATGAAGCATATGAAAAATGCTCACATACTAGTAAGTA
TGAAAATTCAGTAAAGTAACATAGACTAGTATCCATTAAAGAGACTAACAAGACTTATTGGCAGGGGTAAAA
GGGAGAGGATACTCAAACATTGATGATGAAAATGTGAGTTGCTACAGACTTTTTGAAAAATCAATCTGGCAA
TATATAGTAAAATGAAAAATATAAATACTCTGCTTTAGTAATTCTACTCCTGGAAACCTAACCCATGGAAAT
AAAGGATAAAGGATAAAAAATATCTTTGCAAGAGAATGTTTACTACAGGCCGGGCGGGTGGCTCACGCCTG
TAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACA
CGGTGAAACCCCGTCTCTACTAAAAAATAAATAAATAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCC
CAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCC
CGCCACTGCACTCC... [NEOcassette] [Atail] AAGAGAATGTTTACTACAGATGTGTGCACAACAAA
AACAATTAACACAGCTGGAAACAAAAGGAATACATATTAGTAAAGGAATGGTTGAATAAATGGTAAAATA
TCCTCTTCAAGGAAAGTTATGCTGCAAATTTGAAAAAATAAATTAGAATTAATCAGATAACAAGGATTTCC
CATGAAGTTTTGTTGAATAAGGAAAGGAAAATGCAGAAA
```

LINE-1 flanking the insertion site.

CLONE 183

[GG39]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 152,229,496

Strand: plus

DR: AAAAATAATTTAGCAGATCA

ENDOsites: TTTT/AA

Empty site:

```
TTCAATTTCTTTTCATTTTGTGATAAAGTAAAAGTAACTGTATCTTAAAAGAGAAACTAGGCAATGTTATTTTATT
TAGATTATTTTAAAGTGAAGTACTCTGTTTTCAAATTATATTTTCATGAAAAGAAAATGGAAGATTGTTTTTC
TAATCTTAGTTTTAATGACTGAGGTGATCTTTAGTGTATTGGAGATAAAATTTCAAGTTTAAACTGTCTGGCT
GAAAGTTTCATTGTAGAGGGTTTTTGGAGTTTTCTTTGCAAAGAACCCTAAATGAAAAAATATGACACGGATT
↑ AAAAATAATTTAGCAGATCA ↓ TATGATATTATGCATCTCTTAAATGGTCTTACAAGTGATTACATAAGCTA
GGTTCTTTTTTGTTTTTATTTAAATTGTAAAATAGGAAAAGTTTATAAGTTTCTTTATTCTAATCTATTCAG
TGGCCTAGAATGGTTCCATAAGGCCAGTAAAAGTAACTGTAATCAGTGGGCTGAGCAGAGATTTATTTTTAAAGGA
GAGGAC
```

Filled site:

```
TTCAATTTCTTTTCATTTTGTGATAAAGTAAAAGTAACTGTATCTTAAAAGAGAAACTAGGCAATGTTATTTTATT
TAGATTATTTTAAAGTGAAGTACTCTGTTTTCAAATTATATTTTCATGAAAAGAAAATGGAAGATTGTTTTTC
TAATCTTAGTTTTAATGACTGAGGTGATCTTTAGTGTATTGGAGATAAAATTTCAAGTTTAAACTGTCTGGCT
GAAAGTTTCATTGTAGAGGGTTTTTGGAGTTTTCTTTGCAAAGAACCCTAAATGAAAAAATATGACACGGATT
AAAAATAATTTAGCAGATCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGG
CGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAA
AAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGG
GAATGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [Atail
] AAAAATAATTTAGCAGATCATATGATATTATGCATCTCTTAAATGGTCTTACAAGTGATTACATAAGCTAG
GTTCTTTTTTGTTTTTATTTAAATTGTAAAATAGGAAAAGTTTATAAGTTTCTTTATTCTAATCTATTCAGT
GGCCTAGAATGGTTCCATAAGGCCAGTAAAAGTAACTGTAATCAGTGGGCTGAGCAGAGATTTATTTTTAAAGGA
AGGAC
```

No repetitive sequences in the immediate proximity.

CLONE 184

[LZ16]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 171,402,897

Strand: minus

DR: AAAAAAAAAATTACAATGTT

ENDOfsite: TTTT/GC

Empty site:

```
AACCTAAGCCCAGGGCTCTCATGTCCTGTTTAGCAGATGAGAGTTACAGTCTAGCTCACATGCCTGAATGTG
AGTCACCTGTGGCTTGCCAGGTGCTAATGAACCTGAAAAATTATGCTAGACTTTGAGTAATGATTTCCAGCAT
TCTTTCATCTAGGGCAGGGGTGTCCAATCTTTTGGCTTCCGTGGACCACATTGGAAGAAGAATTGTCTTGGG
CCACACATAAAAATATACTAACACTAATGATAGCTGATGAGCTAAAAAAAGTTGC↑AAAAAAAAATTACAATG
TT↓TAAGAAAGTTTGTGAATTCGTGTTGGGCCACATTCAAAGCCATCCCGGGCCGCATGTGGCCACAGGCT
GTGGGTTGGACAAGCTTGGTCCAGCTACGCTGCATTTTAAAAAATGCAATAATCAACTACACACAATGAACT
AAAACCTTCAGTGTAAGTAAATAAATTTGTGTCTATAAATCATAACAGCATCGATAT
```

Filled site:

```
AACCTAAGCCCAGGGCTCTCATGTCCTGTTTAGCAGATGAGAGTTACAGTCTAGCTCACATGCCTGAATGTG
AGTCACCTGTGGCTTGCCAGGTGCTAATGAACCTGAAAAATTATGCTAGACTTTGAGTAATGATTTCCAGCAT
TCTTTCATCTAGGGCAGGGGTGTCCAATCTTTTGGCTTCCGTGGACCACATTGGAAGAAGAATTGTCTTGGG
CCACACATAAAAATATACTAACACTAATGATAGCTGATGAGCTAAAAAAAGTTGCAAAAAAAAAATTACAATGT
TGGCCGGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCA
GGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCG
GGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAG
GCGGAGCTTGCACTGAGCCGAGATCCCGCCACTGC... [NEOcassette] [Atail] AAAAAAAAAATTACA
ATGTTTAAGAAAGTTTGTGAATTCGTGTTGGGCCACATTCAAAGCCATCCCGGGCCGCATGTGGCCACAGG
CTGTGGGTTGGACAAGCTTGGTCCAGCTACGCTGCATTTTAAAAAATGCAATAATCAACTACACACAATGAA
CTAAAACCTTCAGTGTAAGTAAATAAATTTGTGTCTATAAATCATAACAGCATCGATAT
```

hAT-Charlie DNA element flanking the insertion site.

CLONE 185

[TZ15]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 181,561,035

Strand: plus

DR: N/A

ENDOfsite: N/A

Empty site:

```
TATATACCGTATGTTCTGGAAAAGGCCAAAACCTATGGAGACAGTAAAAAGATCAGTGGTTGCCAGGGGTTGAA
AGGGGAAGGGAGGGATAAATAGGCACAGCACAAAGGATTTTCAGAACAGTGAAAGTATTCTGTATGACTG
TAATAATGAATCATGTCTATTATACATCTGTCAAAGCCCATGGAATGTACAACACCAAGAGTGAACCCTAATA
TAAGCTATGGTCTTTGGATGACAATGATGTGTCAATATAGGTTTGTCAATTATAACAAGTGTAGGCCGGGTG
CGATGGCTCAGGCCTGTAATCCCAGCACTTTGGGAGTCCGAGGCGGGCGGATCACCTGAGGTCAGGAGTTTCG
AGACCAGGCTGGCCAACATAGTGAAACA↑↓CCGTCTCTACTAAAAATACAAAAATTAGCCAGGCCTGGTGGC
GCGTGCCTATAGTCCCAGTTACTCAGGAGGCTGAGGCAGGAGACTGACTTGAACCCAGGAGGCAGAGTGAGC
TGAGATCGTGCCATTGCACTCCAGCCTGGGTGATAGAGTGAGACTCCGTCTCAAAAAATAATAAATAAATAA
ATAAAACAAACATA
```

Filled site:

```
TATATACCGTATGTTCTGGAAAAGGCCAAAACCTATGGAGACAGTAAAAAGATCAGTGGTTGCCAGGGGTTGAA
AGGGGAAGGGAGGGATAAATAGGCACAGCACAAAGGATTTTCAGAACAGTGAAAGTATTCTGTATGACTG
TAATAATGAATCATGTCTATTATACATCTGTCAAAGCCCATGGAATGTACAACACCAAGAGTGAACCCTAATA
TAAGCTATGGTCTTTGGATGACAATGATGTGTCAATATAGGTTTGTCAATTATAACAAGTGTAGGCCGGGTG
CGATGGCTCAGGCCTGTAATCCCAGCACTTTGGGAGTCCGAGGCGGGCGGATCACCTGAGGTCAGGAGTTTCG
AGACCAGGCTGGCCAACATAGTGAAACACGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette]
[A tail and 3' unsequenced]
```

LINE-1 at the 5'.

Alu flanking the insertion site.

Inserted by recombination with a pre-existing truncated Alu: missing 107 bp of 5' Alu sequence.

CLONE 186

[LZ43]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 184,205,951

Strand: minus

DR: CAACTAACTATAAGGC

ENDOsites: TTTG/AA

Empty site:

```
CAGAAGTTCAAGGCTGCTGTGAGCTATGGTGGTGTCACTGCACTCCAGCCTGGGTAACAGAGAAAGACTCTA
CCTCTAGTAATAGTGATAATAATAATATGAAAAGCCCAAATAGCCAAAGCAACGTTAAGCAAAAAGAACAAA
GCCAGAGGCATCATATTACCTGACTT↑CAACTAACTATAAGGC↓TACGGTAACCAAACATCATGGTACTG
GTACAAAAACAGACATATAGACCAATGGAACAGAATAGAGAATCCAGAAATAAAGCCACACACCTATAACCA
TCAGATCTTCAACAAAGTTAACAAAAATAAGCAATGGGGAAAGGACTTCCTATTGAATAAATGGTGCTTGGG
TGGCCGGTTAGCCATATGCAAAAAGAATGA
```

Filled site:

```
CAGAAGTTCAAGGCTGCTGTGAGCTATGGTGGTGTCACTGCACTCCAGCCTGGGTAACAGAGAAAGACTCTA
CCTCTAGTAATAGTGATAATAATAATATGAAAAGCCCAAATAGCCAAAGCAACGTTAAGCAAAAAGAACAAA
GCCAGAGGCATCATATTACCTGACTTCAACTAACTATAAGGCGGCCGGGCGCGGTGGCTCACGCCTGTAAT
CCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGT
GAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGC
TACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCC GCC
... [NEOcassette] [A tail] CAACTAACTATAAGGCTACGGTAACCAAACATCATGGTACTGGTACA
AAAACAGACATATAGACCAATGGAACAGAATAGAGAATCCAGAAATAAAGCCACACACCTATAACCATCAGA
TCTTCAACAAAGTTAACAAAAATAAGCAATGGGGAAAGGACTTCCTATTGAATAAATGGTGCTTGGATGGCC
GGTTAGCCATATGCAAAAAGAATGA
```

Alu at the 5'; LINE-1 flanking the insertion site.

CLONE 187

[LZ36]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 3

5' position: 197,689,496

Strand: minus

DR: AGAAAGGACATCTGTT

ENDOsites: TTCT/AA

Empty site:

```
TGTCTGATTTCAATATTTATTACAGAGGTACATAATCCAGGCAACTGAATACCCATATGGGGCAAAAAAAAAA
AAAAAAGGATATTGATCCCCTATCTCACATCATATATAAAAAATTAATTTTCAGATGAATCATAATCCTAAAAG
TGAAGGCTTCTAGAACACAGGAGAATATTTTTATGACCTAGGGGGTATTTAAAGATTTCTT↑AGAAAGGACA
TCTGTT↓GGTGAGGATATGCAGCAACCATAACTAATATTTTGGTGGATGGGGGTGAAAATGGTAGAGTATTT
TGGAGAAAGGGTTAGTATTTTTTATAAACATTCACCTACCCTTGACCCAGTAATTTACCCCTAGGTATTTA
TCCAAGAACAATGAAAACATATATCCACAAAATTACTGTACAAGAATATTGACAGCAGCTTT
```

Filled site:

```
TGTCTGATTTCAATATTTATTACAGAGGTACATAATCCAGGCAACTGAATACCCATATGGGGCAAAAAAAAAA
AAAAAAGGATATTGATCCCCTATCTCACATCATATATAAAAAATTAATTTTCAGATGAATCATAATCCTAAAAG
TGAAGGCTTCTAGAACACAGGAGAATATTTTTATGACCTAGGGGGTATTTAAAGATTTCTTAGAAAGGACAT
CTGTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAG
GTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATT
AGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGAATGGCGTGAACCC
GGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [Atail] AGAAAGGACATCTG
TTGGTGAGGATATGCAGCAACCATAACTAATATTTTGGTGGATGGGGGTGAAAATGGTAGAGTATTTTGGAG
AAAGGGTTAGTATTTTTTATAAACATTCACCTACCCTTGACCCAGTAATTTACCCCTAGGTATTTATCCAA
GAACAATGAAAACATATATCCACAAAATTACTGTACAAGAATATTGACAGCAGCTTT
```

LINE-1 flanking the insertion site.

CLONE 188

[LZ76]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 4

5' position: 124,759,370

Strand: minus

DR: AAAAGTTACATCA

ENDOsites: TTTT/AA

Empty site:

```
GAGAAGTTTTGTTTGGATTTTTTTTATAGACCTGTTAACCCCTTGATGGATTTTACAGTCCTGCAGCACTGAAT
ATAAACTATGGATTTTTTAAATTGGGAGTGGAAAGTGTGGTTGGTGGGCCCACTGTGGATCAAAAAGTCTTGCA
TGTATGTGTTTTCCTTTGACCCAGAACTCTAGGTCTGGAAATATAAAGGAAAGAATGGAGAATAAATATATA
ATTATGTGGATCTTCATTGCAGAATGATTTACAAAGGGAAATATTGACCTCAAATAACGTGTTT↑AAAAGTT
ACATCA↓AAGTAAAATGTTGTAATAACAAGATGAATAGACTATTTTGCAGTCCCAATAAAAAGTAATATTCT
TAACATATTCATTACATTGAAAATATTCATGCAATAGTTAGATGAAAAAGTGAGGTACAAAATGGTAGGTT
AAATGTGATCTCATTTTTATTGCAAAGAATATGTGTGTGTGTGTATATATATACATGTATATG
```

Filled site:

```
GAGAAGTTTTGTTTGGATTTTTTTTATAGACCTGTTAACCCCTTGATGGATTTTACAGTCCTGCAGCACTGAAT
ATAAACTATGGATTTTTTAAATTGGGAGTGGAAAGTGTGGTTGGTGGGCCCACTGTGGATCAAAAAGTCTTGCA
TGTATGTGTTTTCCTTTGACCCAGAACTCTAGGTCTGGAAATATAAAGGAAAGAATGGAGAATAAATATATA
ATTATGTGGATCTTCATTGCAGAATGATTTACAAAGGGAAATATTGACCTCAAATAACGTGTTTAAAAGTTA
CATCAGGCCGGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAG
GTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAATTA
GCCGGGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCG
GGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] [A tail] AAAAG
TTACATCAAAGTAAAATGTTGTAATAACAAGATGAATAGACTATTTTGCAGTCCCAATAAAAAGTAATATTCT
TTAACATATTCATTACATTGAAAATATTCATGCAATAGTTAGATGAAAAAGTGAGGTACAAAATGGTAGGTT
TAAATGTGATCTCATTTTTATTGCAAAGAATATGTGTGTGTGTGTATATATATACATGTATATG
```

LINE-1 flanking the insertion site.

CLONE 189

[LZ11,LZ39]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 19,387,313

Strand: minus

DR: AAATGTTTATTATTT

ENDOsites: ATTT/AA

Empty site:

```
CCTGTAATCCCGGCTACTCAAGAGGCTGAAGCATAGAATTGCTTGAACCCAGGAGACTGAGGTTGCAGTGAG
CCAAGATTGCGCCACTGCACTCCAGCCTGGATGACAGAGCGGAGACTCCATCTTAAAAAAAAAAAAAAAAAAAA
AAAGAAAGAAAAGAAAATAATGTTTACTTTCAAATATGTTAAAAATAACTCTAAAGCAAAGAAAGATTTGGTA
TCTTTATATTGTTGGATGTTTGGCATTACATGTATTTCTTCAAGTAATTATTCAATGTACTACATTACTTAT
GTTACCATTTAATTGTT↑AAATGTTTATTATTT↓ATGCTACTATAGCCAGAATTAGAAGATATTAATAGGTT
TATGTGTATGTTTAGAAAATGGAGGTCAAATGACTACAAAATCCAGAAATAGTCACATCTTTTAAACATTT
AGCCTTCATCTTTTATTTGGTTTCTTTTGCATTCAATGCTTCAATTATGTTGGGATAAAAATTGATAGGATG
GCCTTCCTCTAATTTTAC
```

Filled site:

```
CCTGTAATCCCGGCTACTCAAGAGGCTGAAGCATAGAATTGCTTGAACCCAGGAGACTGAGGTTGCAGTGAG
CCAAGATTGCGCCACTGCACTCCAGCCTGGATGACAGAGCGGAGACTCCATCTTAAAAAAAAAAAAAAAAAAAA
AAAGAAAGAAAAGAAAATAATGTTTACTTTCAAATATGTTAAAAATAACTCTAAAGCAAAGAAAGATTTGGTA
TCTTTATATTGTTGGATGTTTGGCATTACATGTATTTCTTCAAGTAATTATTCAATGTACTACATTACTTAT
GTTACCATTTAATTGTTAAATGTTTATTATTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTT
GGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTC
TCTACTAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGG
CTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC...
[NEOcassette] [Atail] AAATGTTTATTATTTATGCTACTATAGCCAGAATTAGAAGATATTAATAG
GTTTATGTGTATGTTTAGAAAATGGAGGTCAAATGACTACAAAATCCAGAAATAGTCACATCTTTTAAACA
TTTAGCCTTCATCTTTTATTTGGTTTCTTTTGCATTCAATGCTTCAATTATGTTGGGATAAAAATTGATAGG
ATGGCCTTCCTCTAATTTTAC
```

Alu at the 5'.

CLONE 190

[LZ56, GG24]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 36,255,339

Strand: plus

DR: AGAGAAAGAGATTTA

ENDOsites: CTCT/AC

Empty site:

```
GGTTTGACTGGCTCCAGCTTCTGAACATCACTGTGCCTGCAGGATTCAATAACTGCACACCTTAGAACTAAT
CTCTTTCCCTTAGAGACTAATCCTTCATCCCAGCCCCATCCCATGTCTGGGATGCCAAGGATAAATTATGGG
ACAAGTATTTTCTTTTAGAAGATCTTTTCACTTCACAAAATAATTTGCATCATATTCTTTCAAATAATAATA
AGATTACTATTTAGGTATGTGCTTGGCTCTGATATAAGTGCTTTACATGCTTTATCTCATTGAAATCTCTCA
GTCACTCAATAAGTCATGAACACTACAGTTATTCCCATTTTAAATTGATATAAGTAGAGT↑AGAGAAAGAGATT
TA↓AAAACCTTATCAAGGTCAGTGTAGTCACTGTGCTGGAGCCAGAAGTGGAGCCCATGCAGTCTAACAGGAG
AGCCTACTTGAAATGGGAAGCTCCTATAGAAATATTTTCAACAGTCTGATTTTTTGGTGTATTTTATAGCAC
ATCTCCAGAAAATGATGTGTACCTATATTATTATAAGTACACAGGAGAAATCCTGACAA
```

Filled site:

```
GGTTTGACTGGCTCCAGCTTCTGAACATCACTGTGCCTGCAGGATTCAATAACTGCACACCTTAGAACTAAT
CTCTTTCCCTTAGAGACTAATCCTTCATCCCAGCCCCATCCCATGTCTGGGATGCCAAGGATAAATTATGGG
ACAAGTATTTTCTTTTAGAAGATCTTTTCACTTCACAAAATAATTTGCATCATATTCTTTCAAATAATAATA
AGATTACTATTTAGGTATGTGCTTGGCTCTGATATAAGTGCTTTACATGCTTTATCTCATTGAAATCTCTCA
GTCACTCAATAAGTCATGAACACTACAGTTATTCCCATTTTAAATTGATATAAGTAGAGTAGAGAAAGAGATTT
AGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCA
GGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCG
GGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAG
GCGGAGCTTGAGTGGAGCCGAGATCCCGCCACTGCA... [NEOcassette] [Atail]AGAGAAAGAGATT
TAAAACTTATCAAGGTCAGTGTAGTCACTGTGCTGGAGCCAGAAGTGGAGCCCATGCAGTCTAACAGGAGA
GCCTACTTGAAATGGGAAGCTCCTATAGAAATATTTTCAACAGTCTGATTTTTTGGTGTATTTTATAGCACA
TCTCCAGAAAATGATGTGTACCTATATTATTATAAGTACACAGGAGAAATCCTGACAA
```

MIR flanking the insertion site.

CLONE 191

[GG47]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 42,284,787

Strand: plus

DR: AAAAATTTAA

ENDOsites: TTTT/AA

Empty site:

```
TTTTTATTTCTACTGAGACAGAAAGAAAAATCATTGAATGAATTTAATGCAGAAATAGTATTTTTAAAAGCT
TTAGAGACCAAGTCTCAAGCTTAACATTTCAATTTTCATTTCACTGAAGAGTACAAAAGACAAAATAATA
AGTTTAATTATTATTAGAATTGTGTAGAAAAGATAAGAATGTACCATTCTTTCAAGTTACCTCTAATTAGAA
AGTTACCTTTCAAATTAAGTACTGGCTACTTAACTTGTGGACCAGTACAAAATAAAAATACAGGGATTTTGT
TCAAAAACCTTATTT↑AAAAATTTAA↓GACAGTGACAGCAGAGCATTTAAGAAAGCAAATAGTCCTTCTAA
GCACAGAGCCCTAATGCAAATGCAGAGCTTGCACAACCATGAAGCCAGCTCTGTCTCTAAGCTCACAATTCA
TTTAATCTGTTCTAGCATTGTATTTGATGTTTAAACAAAGCAAACACCTAATGGAGGGGAAAATCTAGCTGTA
ACCAAAAAGGCA
```

Filled site:

```
TTTTTATTTCTACTGAGACAGAAAGAAAAATCATTGAATGAATTTAATGCAGAAATAGTATTTTTAAAAGCT
TTAGAGACCAAGTCTCAAGCTTAACATTTCAATTTTCATTTCACTGAAGAGTACAAAAGACAAAATAATA
AGTTTAATTATTATTAGAATTGTGTAGAAAAGATAAGAATGTACCATTCTTTCAAGTTACCTCTAATTAGAA
AGTTACCTTTCAAATTAAGTACTGGCTACTTAACTTGTGGACCAGTACAAAATAAAAATACAGGGATTTTGT
TCAAAAACCTTATTTTAAAAATTTAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGG
CCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACT
AAAAAAAATACAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGG
CAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [At
ail]AAAAATTTAAGACAGTGACAGCAGAGCATTTAAGAAAGCAAATAGTCCTTCTAAGCACAGAGCCCTAA
TGCAAAATGCAGAGCTTGCACAACCATGAAGCCAGCTCTGTCTCTAAGCTCACAATTCATTTAATCTGTTCTA
GCATTGTATTTGATGTTTAAACAAAGCAAACACCTAATGGAGGGGAAAATCTAGCTGTAACCAAAAAGGCA
```

DNA element flanking the insertion site.

CLONE 192

[LZ75]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 64,336,200

Strand: plus

DR: AAAAAACAGATATA

ENDOsites: TTTT/AT

Empty site:

```
AACAAGAGAAAACCTTCTATCTCAAAAAAAAAAAGATAAAAAATTAATATACTTAAATCATCTCCCCAAATCTCT
GTATGTCTACCATAGAGCTAAAGGAATTAAGTCATAATATTTATAGAACACTTACTATATGACCACTACTTT
ATGTCTATCATCTTATTTAATTATCCTAAGATTCTTGTGAAGCAGTTCTTGTGTTTTATTTTACAGATAGAAGA
CTGAGA AACTTGTGTTTTATTTCCAATAAGTACAAAAGAGTCATAAAATAT AAAAAACAGATATA GCCACCTGA
AAACTTGTGTTTTCCAACAAACACAAAGTCATAAACGTCAAAAATAATAAAGGACTTAGTGCTAGGATGTGCTTC
AGTGGTTGAAATGGA AACTCTGAGTTGGAAATATGTTTACATTTACACTTTGTTTAAATTCATTTTTTAACTG
AAAAGATAGTCATCTGGGACTAATATGCATTATTCAAGATATAATGG
```

Filled site:

```
AACAAGAGAAAACCTTCTATCTCAAAAAAAAAAAGATAAAAAATTAATATACTTAAATCATCTCCCCAAATCTCT
GTATGTCTACCATAGAGCTAAAGGAATTAAGTCATAATATTTATAGAACACTTACTATATGACCACTACTTT
ATGTCTATCATCTTATTTAATTATCCTAAGATTCTTGTGAAGCAGTTCTTGTGTTTTATTTTACAGATAGAAGA
CTGAGA AACTTGTGTTTTATTTCCAATAAGTACAAAAGAGTCATAAAATATAAAAAAACAGATATA GGCCGGGCGCGG
GTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGAC
CATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCG
GGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCA
GTGAGCCGAGATCCCGCCACTGCA... [NEOcassette] [Atail] AAAAAACAGATATAGCCACCTGAA
AACTTGTGTTTTCCAACAAACACAAAGTCATAAACGTCAAAAATAATAAAGGACTTAGTGCTAGGATGTGCTTCA
GTGGTTGAAATGGA AACTCTGAGTTGGAAATATGTTTACATTTACACTTTGTTTAAATTCATTTTTTAACTGA
AAAGATAGTCATCTGGGACTAATATGCATTATTCAAGATATAATGG
```

MIR at the 5'.

CLONE 193

[LZ30]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 76,483,382

Strand: minus

DR: AAGAAAAGA

ENDOsites: TCTT/AG

Empty site:

```
ATATTTACAATGGAGAATATTGGCTGGCCACGTATGCTAGATGGTTGCTTTTTTCATTTGTTTATGCCTCAGT
GTAATTGTCTTAATCTTCTAGGGAAAAGTCTAAAAATTCTTTTGAAGATGAAAACCAAGGCTGGAGTCAGAC
AACACCAGGGTCAGGGAATGCACACCTTGGTATGGGTAGGAGAAAAGTAGACTGCTTGAGAGATAGAAGCTCT
GGATTCTAGTCCCCTCTTTGCCATTTTTGCCATATTTTCATCAAATCTAAAATACCACTAATTGTAGGGAATG
CCATCACTTTTATGTATCACT ↑ AAGAAAAGA ↓ ATGCTGCCCATCAAACAATGACAGTCCTACAAGATATGAAA
ATTGCTCCCACTGGCCGCTCACTGCTTTGATTTTTTTTTTTCATCTATAGATTAGGCTATATCTCCTGGCTTC
AGTTTACTTACTTGACATGTAAGAGGTAACCCCTTTGCACATCTCTCAATATTGAAACATAAATCTAGCTGT
AGGTACTTGTGGGTA
```

Filled site:

```
ATATTTACAATGGAGAATATTGGCTGGCCACGTATGCTAGATGGTTGCTTTTTTCATTTGTTTATGCCTCAGT
GTAATTGTCTTAATCTTCTAGGGAAAAGTCTAAAAATTCTTTTGAAGATGAAAACCAAGGCTGGAGTCAGAC
AACACCAGGGTCAGGGAATGCACACCTTGGTATGGGTAGGAGAAAAGTAGACTGCTTGAGAGATAGAAGCTCT
GGATTCTAGTCCCCTCTTTGCCATTTTTGCCATATTTTCATCAAATCTAAAATACCACTAATTGTAGGGAATG
CCATCACTTTTATGTATCACTAAGAAAAGA GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGG
AGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCT
ACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTG
AGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette
] [Atail] AAGAAAAGAATGCTGCCCATCAAACAATGACAGTCCTACAAGATATGAAAATTGCTCCCACTG
GCCGCTCACTGCTTTGATTTTTTTTTTTCATCTATAGATTAGGCTATATCTCCTGGCTTCAGTTTACTT
GACATGTAAGAGGTAACCCCTTTGCACATCTCTCAATATTGAAACATAAATCTAGCTGTAGGTACTTGTGGG
TA
```

MIR at the 5'; DNA element flanking the insertion site.

CLONE 194

[TZ18,TZ19]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 131,066,328

Strand: plus

DR: N/A

ENDOsites: N/A

Empty site:

```
CCATTGATTAGGTATAAAGATCAATTTCCATCAAAAACACAATCATCTCATTACCAGTAATTTAAAAAGTCAAG
ATTCTATTTTTGATACTGAGTAAATATAAAAATACTTGTGATTAATGCAAACCTGGATGACACAGATAAATTTA
CATCAGATGACACTTGCTAAGCATGAGACCAAATACTGATCTTATATAAAAATGTAATACATTTAGAGAGAAG
TTCCTATGTATTATACTTACTAATACGTTTAATTCATATTTTACAAGAAGTCACATTACTTTTGAGAAATA
AAACTGTGTATTATGTATACTTCCAATCATACTTTAATTTCATACAACCTGAAACTGTATTAGTATATTTATC
TTCATTTTTCAATAATAAAAAAAGTATGTA↑↓AAATAAGAAATTATTCTGATAACCCAATAAATCTGAATTG
GGAAATATAAGGAGAAAATACTCATGCAATCTATGCCTATAGCTTTCTACTTCTCCTATTCTAAGATTTATC
AAAGTTCATAAACATAAATTGTTTATCTGTCTCTCCAGCTTCAATGCAAGCTCTAGGAAGATAAGGACTAATT
GCTATTATATCTCCAC
```

Filled site:

```
CCATTGATTAGGTATAAAGATCAATTTCCATCAAAAACACAATCATCTCATTACCAGTAATTTAAAAAGTCAAG
ATTCTATTTTTGATACTGAGTAAATATAAAAATACTTGTGATTAATGCAAACCTGGATGACACAGATAAATTTA
CATCAGATGACACTTGCTAAGCATGAGACCAAATACTGATCTTATATAAAAATGTAATACATTTAGAGAGAAG
TTCCTATGTATTATACTTACTAATACGTTTAATTCATATTTTACAAGAAGTCACATTACTTTTGAGAAATA
AAACTGTGTATTATGTATACTTCCAATCATACTTTAATTTCATACAACCTGAAACTGTATTAGTATATTTATC
TTCATTTTTCAATAATAAAAAAAGTATGTAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGG
GAGGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTC
TACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCT
GAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassett
e] [A tail and 3' unsequenced]
```

L2 at the 3'.

CLONE 196

[LZ81]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 141,379,654

Strand: minus

DR: AAAAATTAGCCAAGCA

ENDOsites: TTTT/AA

Empty site:

```
AAAAAGGGTAGGAATGAACAGATGAGCAATAAATTGTCATGTTGGGGCTGTACCTGAGATCCAAACGAGGAT
ACAGCTGTTATAAAGATTAAGGCAGATTTGTGATGAGGGATATTATTGCAAGGTATGCAAAAATACATTTAG
GTTTTTTTTTTTTTTTTTAAAGTTAATATAATGGAATATCTTAGGTCAATATAGCCAATTAAGGAGGTAGATA
CAGAAGTTAAAAGAAGGGTTAATTTTTTTAACTATTTTGAGGCTGGGTGCAGTGGCTCATGCCTATAATCC
CAGTGCTTTGGGAGGCCAAAGCAGGAGGATCACCTGAGATCAGCAGTTCAAACCAGCCTGGGCAACATAAC
AAGACCCTGTCTCTACGAAATTTTTT↑AAAAATTAGCCAAGCA↓TGGTGGTGTATGCCTGTAGTCCCAGCCAC
TCAGAAGGCTGAGACAAGAGGATTGCTTGAGCCCAGGAGTTCAAGACTGCTGTGAACTATAATCGCATCACT
GTACCCCAACTCTGGACAACAGAACAAGACCCCATCTCAAAAAAATATATTTTTTTTGATATAAATCCAATGA
TTTTTATGTTTATAGAATACTGCACTT
```

Filled site:

```
AAAAAGGGTAGGAATGAACAGATGAGCAATAAATTGTCATGTTGGGGCTGTACCTGAGATCCAAACGAGGAT
ACAGCTGTTATAAAGATTAAGGCAGATTTGTGATGAGGGATATTATTGCAAGGTATGCAAAAATACATTTAG
GTTTTTTTTTTTTTTTTTAAAGTTAATATAATGGAATATCTTAGGTCAATATAGCCAATTAAGGAGGTAGATA
CAGAAGTTAAAAGAAGGGTTAATTTTTTTAACTATTTTGAGGCTGGGTGCAGTGGCTCATGCCTATAATCC
CAGTGCTTTGGGAGGCCAAAGCAGGAGGATCACCTGAGATCAGCAGTTCAAACCAGCCTGGGCAACATAAC
AAGACCCTGTCTCTACGAAATTTTTTAAAAATTAGCCAAGCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCC
CAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGA
AACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCT
ACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCA
CTGCACT... [NEOcassette] [Atail] AAAAATTAGCCAAGCATGGTGGTGTATGCCTGTAGTCCCAGC
CACTCAGAAGGCTGAGACAAGAGGATTGCTTGAGCCCAGGAGTTCAAGACTGCTGTGAACTATAATCGCATC
ACTGTACCCCAACTCTGGACAACAGAACAAGACCCCATCTCAAAAAAATATATTTTTTTTGATATAAATCCAA
TGATTTTTTATGTTTATAGAATACTGCACTT
```

Alu flanking the insertion site.

CLONE 198

[LZ48]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 5

5' position: 167,190,715

Strand: minus

DR: TAAAACAAATTCAT

ENDOsites: TTTA/AT

Empty site:

```
AGTGGCTTGGAAATTCTGACTTGTATTGATTGAGACACCTTCCCACGAAGAAAGATGGGATTAGTAATAAGT
TGCTTGTTCAGTTACTCATTGGGTTCTTTGCCAGGCAAGGATGAGAGGGCTAAAGTTGAAAAAATCAAAGAAA
GAAAAAGGAAAAAAAAAATGCTCACTGTAAATTAATGCTTGTCAAGCTCAACAAGTTGGAGAGCCGGAGGAA
AGCTTAATTTAAAGTAAACAGACAATTTAAAGTGAGGGAAGTTCAGCCTACCTAGAAGAAAAATTCTAGGTAT
↑ TAAAACAAATTCAT ↓ GAAAAGTTAGAAGCGCGCACTGCCATTTATCATTATTCAAGACATAAGTGGTAAT
GAAGTTAGCAAATCTCCCCAGATTTGATGTTAGAATGACTTTGGTTCTTAGACAATGCTGGGCAATTGAAG
ACAATTGAGCTTGTGTCTGTGAACAGCATCTTTTTTTCTTTTCTTTGACTTTTCTATTCCCCGCCACCAG
```

Filled site:

```
AGTGGCTTGGAAATTCTGACTTGTATTGATTGAGACACCTTCCCACGAAGAAAGATGGGATTAGTAATAAGT
TGCTTGTTCAGTTACTCATTGGGTTCTTTGCCAGGCAAGGATGAGAGGGCTAAAGTTGAAAAAATCAAAGAAA
GAAAAAGGAAAAAAAAAATGCTCACTGTAAATTAATGCTTGTCAAGCTCAACAAGTTGGAGAGCCGGAGGAA
AGCTTAATTTAAAGTAAACAGACAATTTAAAGTGAGGGAAGTTCAGCCTACCTAGAAGAAAAATTCTAGGTAT
TAAAACAAATTCAT GGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCG
GATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATA
CAAAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGG
CGTGAACCCGGGAGGCGGAGCTTGCAAGTGGCCGAGATCCCGCC... [NEOcassette] [A tail] TAAAA
CAAATTCAT GAAAAGTTAGAAGCGCGCACTGCCATTTATCATTATTCAAGACATAAGTGGTAATGAAGTTA
GCAAATCTCCCCAGATTTGATGTTAGAATGACTTTGGTTCTTAGACAATGCTGGGCAATTGAAGACAATTG
AGCTTGTGTCTGTGAACAGCATCTTTTTTTCTTTTCTTTGACTTTTCTATTCCCCGCCACCAG
```

No repetitive sequences in the immediate proximity.

CLONE 199

[GG5]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 16,730,783

Strand: minus

DR: AAGAAATATATTATT

ENDOsites: TCTT/AA

Empty site:

TGACCTGGAATAAATCATGTTTAACTTCTTTATGCTTCAATTAGCTTTTGAAAGATATGTGTGGTTGTGTTT
AGCCAGTGGAAAGGCAATAACTGAAGTTCACAACGAAAGGAGAAGCTTGAAGGGAAATTTTGTAGGAAAGAA
CAGTGGGCAAGAATAACAATCTTCAGGCAGGGTGCTATTCCCTAAAAAGTCTTGGTACACATGGTTCCTAAGGA
AGGTGGGACATTTTCTTATAATATTCTTTCTGTATTTTGTAGAATT **AAGAAATATATTATT** ↓ GTACATAAA
TATTTTATATTACATTATATATATGTATAAATACATTTATATATATATATATATATATACATACTGTTTTACCCTT
TAACTCCAGAAAGCTTTGCGTTCACACATCTTTTTCCCTAACTTCTACCTATAAAGGGATTTTTAGTGATAA
TCTTGAATTTAAATTGTAATCAAGCAGTAACAACTTCATTTAATAT

Filled site:

TGACCTGGAATAAATCATGTTTAACTTCTTTATGCTTCAATTAGCTTTTGAAAGATATGTGTGGTTGTGTTT
AGCCAGTGGAAAGGCAATAACTGAAGTTCACAACGAAAGGAGAAGCTTGAAGGGAAATTTTGTAGGAAAGAA
CAGTGGGCAAGAATAACAATCTTCAGGCAGGGTGCTATTCCCTAAAAAGTCTTGGTACACATGGTTCCTAAGGA
AGGTGGGACATTTTCTTATAATATTCTTTCTGTATTTTGTAGAATTAAGAAATATATTATT **GGCCGGGCGCG**
GTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGGAGATCGAGAC
CATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCG
GGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCCGAGCTTGCA
GTGAGCCGAGATCCCGCC... [NEOcassette] [A tail] AAGAAATATATTATTGTACATAAATATTTTA
TATTACATTATATATGTATAAATACATTTATATATATATATATATATATACATACTGTTTTACCCTTTAACTCC
AGAAAGCTTTGCGTTCACACATCTTTTTCCCTAACTTCTACCTATAAAGGGATTTTTAGTGATAATCTTGAA
TTTAAATTGTAATCAAGCAGTAACAACTTCATTTAATAT

No repetitive sequences in the immediate proximity.

CLONE 200

[B2-7]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 36,825,728

Strand: plus

DR: N/A

ENDOfsite: N/A

Empty site:

```
GTAGCACGTGCCTGTAGTCCCAGCTCCTTAGGAGGCTGAGGCAGGAGGACTGCTTTGAGCCCAGGAGTTTGA
GTTTACGGTGAGCTATGATCATGTTCAGTATACTCCAGTCTAGGCAAGAGGCAAAACCTTGACTCTAAATAAA
TGAATACAGGGAAAATGAAGAAACATGGGATTGGGAATTTTGGCTAGCAGCATCACCACCAAATGTTATTT
ATATTATGCCCACAAGAGCAGGGTGTGGGCTGGATACCCTAAGCTCAGGCAGGTTTTGCTCTAAGAGCAAA
AGGATGTAAGTTAGACCA↑↓GGCGCGGTGGCTCATGCCTATAATCCCAGCACGTTGGAAGGCCAAGGCAGGT
GGATCACGAGGTCATGAGTTCGAGACCAGCCTGGCCAACATAGTGAAACCCCATCTCTACTAAAAATACAA
AAAAAAATTAGCCAGGCATGGTGGCACACACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATT
GCTTTGAACCCAGTAGGTGGAGGTTGCAGTGAGCCGAGATCATGCCATTGCACTCCAGCCTGGGCGACAGAG
CAAGACTGTCTCAAAAAAAAAAAAAAAAAAAAAA
```

Filled site:

```
GTAGCACGTGCCTGTAGTCCCAGCTCCTTAGGAGGCTGAGGCAGGAGGACTGCTTTGAGCCCAGGAGTTTGA
GTTTACGGTGAGCTATGATCATGTTCAGTATACTCCAGTCTAGGCAAGAGGCAAAACCTTGACTCTAAATAAA
TGAATACAGGGAAAATGAAGAAACATGGGATTGGGAATTTTGGCTAGCAGCATCACCACCAAATGTTATTT
ATATTATGCCCACAAGAGCAGGGTGTGGGCTGGATACCCTAAGCTCAGGCAGGTTTTGCTCTAAGAGCAAA
AGGATGTAAGTTAGACCAGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGG
ATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAA
ATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAA
TGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCTG... [NEOcas
sette] [Atail and 3' unsequenced]
```

Alu flanking the insertion site.

Inserted by recombination with a pre-existing Alu.

CLONE 201

[GG51]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 64,248,332

Strand: plus

DR: AAAAGATCAATGTTGG

ENDOsites: TTTT/AT

Empty site:

```
GCTGACATTAAATGTACATGCAAATTTTTAGCAAGGTTGTGCCTAATCACCACCATGAAAACCTCTTTGGAA
TATGAGCCTTGGTGTTTACCAGTAGGGAAATGACAGGTTGTTCAAAGGAAATGTTTCCCAAGTTCTGGTTG
GAAGCTGGCATCAGAGAAAGAGGGAAATCTAGAAGTGTCTTAGTTTCTCTAGCAACAAGATTTCAAAAAAT
TGTACTGAAAGTTCAGTGAACATTGTTACAGGGATTTCCATTCTTCATAAAAAGAATAAACTTGCAAAAACT
GAGACTGAATGATTTAGCAATTGAATTAT↑AAAAGATCAATGTTGG↓ATATTCTGTGTTTTAAACATAATA
AAAATTAGATTAGTTTAAATTTGAATTCGAGACACTAAGTGATAAAGTTACATGTTTCAGTATTTGAAGCTGTA
GCTTTGCATAAGCAATAAATAATTAATAGGATTTTGAACTTGGTCCAAGCATATAAAATAGTGCAAATACC
AAGAAATAGCATGCAAAAAGAAAAAAGAAG
```

Filled site:

```
GCTGACATTAAATGTACATGCAAATTTTTAGCAAGGTTGTGCCTAATCACCACCATGAAAACCTCTTTGGAA
TATGAGCCTTGGTGTTTACCAGTAGGGAAATGACAGGTTGTTCAAAGGAAATGTTTCCCAAGTTCTGGTTG
GAAGCTGGCATCAGAGAAAGAGGGAAATCTAGAAGTGTCTTAGTTTCTCTAGCAACAAGATTTCAAAAAAT
TGTACTGAAAGTTCAGTGAACATTGTTACAGGGATTTCCATTCTTCATAAAAAGAATAAACTTGCAAAAACT
GAGACTGAATGATTTAGCAATTGAATTATAAAAAGATCAATGTTGGGGCCGGGCGCGGTGGCTCACGCCTGTA
ATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACG
GTGAAACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCA
GCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCG
CC... [NEOcassette] [Atail] AAAAGATCAATGTTGGATATTCTGTGTTTTAAACATAATAAAAAATT
AGATTAGTTTAAATTTGAATTCGAGACACTAAGTGATAAAGTTACATGTTTCAGTATTTGAAGCTGTAGCTTTG
CATAAGCAATAAATAATTAATAGGATTTTGAACTTGGTCCAAGCATATAAAATAGTGCAAATACCAAGAAA
TAGCATGCAAAAAGAAAAAAGAAG
```

No repetitive sequences in the immediate proximity.

CLONE 202

[TZ11]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 86,242,220

Strand: plus

DR: N/A

ENDOsites: N/A

Empty site:

```
AAGCATAAAAATTAAAAATAGTTGTCNTAAAGCAAAAACAAAAGTATATTCCAAACAAAACCTAAGTTTGATA
TGGAAATCTGACTCTATTATTGACAATGGTTTAGCTGTCCACCTGTCAGAATGCTGAAAGAACAGCAACTAC
TAAGACTGAACAGCAACTCCAGCAAAAATCAGGCAGTATGGTTTAAGACCTGGACAGAAGATGCTGCCTGATA
TTTAATTATGACAGGAAAAATTATAACTAGCTACTCTGGGCATTCTTCCCTCCCAATTCCTATGTCTCATGT
TCTTGAAACAGGATCAACTTCTGAGGAAAATCAGAAAACCTAATACTTTTTGAAAAATAAGTAAGT↑↓AATA
ATTAGCACTGATCTTCACACTACTACTTAGTTATCCTCTCAAAACCACTTTCTAACATTGCCACTTTTTTTC
CTTCTTTCCCTCATAACTCCCTCTTCTGAGCTCAACTTTATTTTTCTGCTCATCATTCTCTAAATGTGGTGCT
TTTCGTTACTACTGCCCCACTTCTTGAAAAAGTGCAAAGTGGTGACTA
```

Filled site:

```
AAGCATAAAAATTAAAAATAGTTGTCNTAAAGCAAAAACAAAAGTATATTCCAAACAAAACCTAAGTTTGATA
TGGAAATCTGACTCTATTATTGACAATGGTTTAGCTGTCCACCTGTCAGAATGCTGAAAGAACAGCAACTAC
TAAGACTGAACAGCAACTCCAGCAAAAATCAGGCAGTATGGTTTAAGACCTGGACAGAAGATGCTGCCTGATA
TTTAATTATGACAGGAAAAATTATAACTAGCTACTCTGGGCATTCTTCCCTCCCAATTCCTATGTCTCATGT
TCTTGAAACAGGATCAACTTCTGAGGAAAATCAGAAAACCTAATACTTTTTGAAAAATAAGTAAGTGGCCGG
GCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATC
GAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATAACAAAAATTAGCCGGGCGTG
GTAGCGGGCGCCTGTGGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAG
CTTGCACTGAGCCGAGATCCCGCC...[NEOcassette][A tail and 3' unsequenced]
```

Inserted by recombination with a pre-existing truncated Alu: missing 6 bp of 5' Alu sequence.

CLONE 203

[GG33]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 134,633,594

Strand: plus

DR: N/A

ENDOsites: N/A

Empty site:

```
ACTACCTGAATTTGAATTCTGGCTATAACCTCTTCCTAGGTCTACGATTTTTAACAAATCAGTTAACCTCTGA
CCCTCAGTTTCCTTGGCTATAAAAATGGGCATAATGAAGGATTGTGAGAGTTACCTGAGTAAAGTGCTTTGAA
CGGTGCTGCTCAATAATGTTATCCCTCTGAGAAGACATCGAAAGTTTCCCATAAGAAAAGGGCCTTTGTTAT
TCCAATTTGGATACTTTAAGCAGGCAAAAATAGAACAGTAAAAGGAAAACAAATGTAAAGGGATGCTGTTTAT
GAAATAGTTGTGAAGAATAAGCACTTCAGAGGAGCTTAATTTAACTTCTCAGCTCTG↑CTA↓GAGTAAACAT
TGTAACCAGACTAAAAACCTTTCCTTTGTTCTGCAGTTATTAGAGAAAGGAGGAGGCCAGAGAAGTCATAT
CATTTCACTTCTCTGAACTTCACCCTGGATTATTTAATGTTGACAGGCATTCGGGATGTATAGAGATTAAGG
ACACAGACTCTGGAGCCTGGTGCTGGGATCCAAACCCTGATCC
```

Filled site:

```
ACTACCTGAATTTGAATTCTGGCTATAACCTCTTCCTAGGTCTACGATTTTTAACAAATCAGTTAACCTCTGA
CCCTCAGTTTCCTTGGCTATAAAAATGGGCATAATGAAGGATTGTGAGAGTTACCTGAGTAAAGTGCTTTGAA
CGGTGCTGCTCAATAATGTTATCCCTCTGAGAAGACATCGAAAGTTTCCCATAAGAAAAGGGCCTTTGTTAT
TCCAATTTGGATACTTTAAGCAGGCAAAAATAGAACAGTAAAAGGAAAACAAATGTAAAGGGATGCTGTTTAT
GAAATAGTTGTGAAGAATAAGCACTTCAGAGGAGCTTAATTTAACTTCTCAGCTCTGCTAATAAAAAAAAAATACA
AAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCG
TGAACCCGGGAGGCGGAGCTTGCACTGAGCCGAGATCCCGCC... [NEOcassette] AAAAAAAAAAAAAA
AAAAAAAAACATTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAACACAC
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACCTTTCCTTTGTTCTGCAGTTA
TTAGAGAAAGGAGGAGGCCAGAGAAGTCATATCATTTCACTTCTCTGAACTTCACCCTGGATTATTTAATGT
TGACAGGCATTCGGGATGTATAGAGATTAAGGACACAGACTCTGGAGCCTGGTGCTGGGATCCAAACCCTGA
```

Alu insert truncation: missing between 116-119 bp of 5' Alu sequence.

Sequence is shared between the Alu rescue vector and the genomic pre-insertion site (microhomology).

Post-insertion site includes a 22 bp deletion of chr. 6 sequence shown in blue.

MIRs at the 5' and the 3'.

Clone 203 is an example of an Alu insertion that contains a 5' truncated Alu with a typical oligo dA-tail. The insertion caused a 22 bp genomic deletion where the 5' junction appears to have undergone repair through non-homologous end joining (NHEJ) as evidence by 3 bp microhomology to

the genomic pre-insertion sequence and lack of the characteristic direct repeat.

CLONE 204

[LZ25]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 135,233,306

Strand: plus

DR: AAAAAAAAAATTATT

ENDOsites: TTTT/AA

Empty site:

```
AAAACAATACTTTGTAGTTGAAAACCTTAGGAGGGAGAGTAGGTACTAATAAATCAATCTAACAAGAAAAAAG
TCAACTTGGGAGTATGGAGTAATATTTTGTAGGAATTTTAAATCAGGAATTTACTGACTCAAGTGTTTTGGA
TTAAACTTATTAAGCAATGAATTCTTCTCTTATAAAATGAAGCCTTCTAGTAGGATGATCAGACCATTTAA
TGAGGAGAGAACACCCTGGGGCCAGTACTTAATCATGTCATCCACAACCTCTAATTTTTGCTCCTAAAAACT
CTGAAGCCATCTTTTTCTCCTTTTTT↑AAAAAAAAATTATT↓TCTGTGCTAGTTCTAGAATCATGGCAAATGT
AAAGTTTTGAATTTGATCCATGCTTGACAAACACAAAGTAGATGAACACGTTTTTTATCTTATTTATGTAGA
AGAGGAAAATTTTCTCCTCTACCCTCTTCAGTTGGGCCTTGTGAATTAACCTGGCAAAGTCAAATTGACAGGC
GAAAAAGGCATACGAATTTTATTTT
```

Filled site:

```
AAAACAATACTTTGTAGTTGAAAACCTTAGGAGGGAGAGTAGGTACTAATAAATCAATCTAACAAGAAAAAAG
TCAACTTGGGAGTATGGAGTAATATTTTGTAGGAATTTTAAATCAGGAATTTACTGACTCAAGTGTTTTGGA
TTAAACTTATTAAGCAATGAATTCTTCTCTTATAAAATGAAGCCTTCTAGTAGGATGATCAGACCATTTAA
TGAGGAGAGAACACCCTGGGGCCAGTACTTAATCATGTCATCCACAACCTCTAATTTTTGCTCCTAAAAACT
CTGAAGCCATCTTTTTCTCCTTTTTTAAAAAAAAAATTATTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCA
GCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAA
CCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTAC
TCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCC GCC... [N
EOcassette] [Atail] AAAAAAAAAATTATTTCTGTGCTAGTTCTAGAATCATGGCAAATGTAAAGTTT
TGAATTTGATCCATGCTTGACAAACACAAAGTAGATGAACACGTTTTTTATCTTATTTATGTAGAAGAGGAA
AATTTTCTCCTCTACCCTCTTCAGTTGGGCCTTGTGAATTAACCTGGCAAAGTCAAATTGACAGGCGAAAAAG
GCATACGAATTTTATTTT
```

LTR at the 3'.

CLONE 205

[LZ70]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 6

5' position: 137,359,240

Strand: minus

DR: AGAAACTCAGAGTT

ENDOsites: TTCT/AC

Empty site:

```
GAGGCAGGAGGATCACTTGAGCCCAGGAGTTTGGGGCTGCAGTGAGCTATGATCGCACCACTGCAACTCCAG
CCCGGGCAACAGAGCAAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGGAGAACAAAAGAACTA
TAGAAAGAAAAGTATGCTAGTCAGAGACATTTAAATTAATACTGCTTTATCTTTTCAGAATTCCTTTTGATGT
↑ AGAAACTCAGAGTT ↓ GACAGGACCTTAAAAGTCACCCACCCAGCTGCCACTCTCTTGATTGTCCTCTGCA
GCATCACTTCCAAGTAATGACCTGTCTGCTGTGTGAGCACCTCTCATCACAGGATACTCACTACCCTGCACC
CAGGCAGGCAGGATGTCCTGTCACTGCAGATTTCAACTATTTAAAAGTTCTTTGATAAAATGAGCTGAGCCT
```

Filled site:

```
GAGGCAGGAGGATCACTTGAGCCCAGGAGTTTGGGGCTGCAGTGAGCTATGATCGCACCACTGCAACTCCAG
CCCGGGCAACAGAGCAAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGGAGAACAAAAGAACTA
TAGAAAGAAAAGTATGCTAGTCAGAGACATTTAAATTAATACTGCTTTATCTTTTCAGAATTCCTTTTGATGT
AGAAACTCAGAGTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCG
GATCACGAGGTGAGGATCGAGACCATCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATAC
AAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGC
GTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCA... [NEOcassette] [At
ail] AGAAACTCAGAGTTGACAGGACCTTAAAAGTCACCCACCCAGCTGCCACTCTCTTGATTGTCCTCTG
CAGCATCACTTCCAAGTAATGACCTGTCTGCTGTGTGAGCACCTCTCATCACAGGATACTCACTACCCTGCA
CCCAGGCAGGCAGGATGTCCTGTCACTGCAGATTTCAACTATTTAAAAGTTCTTTGATAAAATGAGCTGAGC
CT
```

Alu at the 5'; L3 at the 3'.

CLONE 206

[LZ38]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 1,287,709

Strand: plus

DR: AAAAAAAAAAAAAAGG

ENDOfsite: TTTT/CT

Empty site:

```
CGCACCCCCCGGACCCTCAGGACCTGGAGCGCGTGGAGGGCGTGGACCACCCCGGATCCCCCACCACCGGGC
GTGTTTGCCAAGGGTGTTCATTGGGCGCCGCGCAGAAGGGGCTTCCGAGGACCCGCCCTCCCCCGCAGCCGT
CAGGGCGCTGACGGAGGCAGCTGCGCCTGTTTAACTGGGAGCCGGTTGCTTGGCAACCCGAGGCGGCTCATT
ACCGCGGCCACAGTGATTAACCAAAAAAGAAAAG↑AAAAAAAAAAAAAGG↓AAAAAAAAAAGAGAGAAAAATAC
AAGGAAGAAAAAATAGGGGAAAAGCGGGAATATGAAAGTAAAATGGATTATTTAATTAGCTAATTGATAAT
CAACTTCTTTTTAATTATTCACTTAATTAATAAAGTGTAACTACAACACTGCCCTCATCAAGCTGCGGTTGC
ACCAGCAGGGTTTCAAAGCCGCCTCTCCCTCCC
```

Filled site:

```
CGCACCCCCCGGACCCTCAGGACCTGGAGCGCGTGGAGGGCGTGGACCACCCCGGATCCCCCACCACCGGGC
GTGTTTGCCAAGGGTGTTCATTGGGCGCCGCGCAGAAGGGGCTTCCGAGGACCCGCCCTCCCCCGCAGCCGT
CAGGGCGCTGACGGAGGCAGCTGCGCCTGTTTAACTGGGAGCCGGTTGCTTGGCAACCCGAGGCGGCTCATT
ACCGCGGCCACAGTGATTAACCAAAAAAGAAAAGAAAAAAAAAAAAAGGGGCCGGGCGGGTGGCTCACGCCTG
TAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACA
CGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAG
TCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA
TCCCGCCACTGCAC... [NEOcassette] [Atail] AAAAAAAAAAAAAGGAAAAAAAAAAGAGAGAAAAAT
ACAAGGAAGAAAAAATAGGGGAAAAGCGGGAATATGAAAGTAAAATGGATTATTTAATTAGCTAATTGATA
ATCAACTTCTTTTTAATTATTCACTTAATTAATAAAGTGTAACTACAACACTGCCCTCATCAAGCTGCGGTT
GCACCAGCAGGGTTTCAAAGCCGCCTCTCCCTCCC
```

No repetitive sequences in the immediate proximity.

CLONE 207

[TZ21]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 27,741,174

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
GTCACTCCATGTGCCTTGCATCTTTCTTACGGCCAATGAGCTAAAACATGGAGGATGTGAATGTCACATGGG
GTGGAAGGAAGAGGAGAGGGCTAAAAGACACATGGCGGCAGGGCATGGTGGCTCACGCCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCAGATCACCTGAGGTCAGGAGTTTCGAGACCAGCCTGACCAACATGGTGA AAC
CCTGTCTCTACTAAAAATACAAAAATTACCTGGGCCTGGTGGCGGGTGCCTATAATCCCAGCTACTTGGGAG
GCTGAGGCAGAGAATTGTTTGAACCCGGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCACCACTACACTCCA
GCCTGGGTGACAGATTGAGACTCCGTCTTAAAAAAAAAAAAAAAAATA↑↓AAAAGACACATGCCTGGTATAGAATGT
TAGTCTGATGAATATGTAATGTGCCAGAGTCAGAAAAATTGTAAACTATCCCTAATCCGCAAAGCTATTCAA
GTTAGCAGGACAAAACCTTCGAGGTTAATCAGATGAATGCTGATATTCAACATTCAGCTGATTTCCCTCAAAA
ATCTTCAATGGATCTTTTTTCTACTCTCTG
```

Filled site:

```
GTCACTCCATGTGCCTTGCATCTTTCTTACGGCCAATGAGCTAAAACATGGAGGATGTGAATGTCACATGGG
GTGGAAGGAAGAGGAGAGGGCTAAAAGACACATGGCGGCAGGGCATGGTGGCTCACGCCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCAGATCACCTGAGGTCAGGAGTTTCGAGACCAGCCTGACCAACATGGTGA AAC
CCTGTCTCTACTAAAAATACAAAAATTACCTGGGCCTGGTGGCGGGTGCCTATAATCCCAGCTACTTGGGAG
GCTGAGGCAGAGAATTGTTTGAACCCGGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCACCACTACACTCCA
GCCTGGGTGACAGATTGAGACTCCGTCTTAAAAAAAAAAAAAAAAATAGGCCGGGCGCGGTGGCTCACGCCTGTAA
TCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGG
TGAAACCCCGTCTCTACTAAAAATAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCC
CAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCC
CGCC...[NEOcassette][A tail and 3' unsequenced]
```

Alu flanking the insertion site.

CLONE 208

[TZ9]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 45,867,351

Strand: plus

DR: N/A

ENDOSite: N/A

Empty site:

```
CAACATAGTAAGACCCCCATCTCTACAAAAACAAAGATTAGCCAGGTGTGGTGGTGCATGCCTGTAATCCC
AGCGCTTGGGAGGCTGAGGCAAGATGATAGCTTGAGCCAGAAGGTTGAGGCTGCAGTGAGCCATGATCACG
CCGGTGCACACTACAGCCTGGGTGACAGGTGTACCCTGTCTCTAAAAAATAAAAAAAGAGGCCAGGCATGGTG
GCTCACATCTGTAATTCCAGCACTTTGGGAGGCCAAGGCCGTTGGATCACCTCAGGTCAGGGGTTTGAGACC
AGCCTGGCTAACATGGTGAAACCCCATCTCTATTAATAAATACAAAAATT↑↓AGCCGGGCATAGTGGGCGGGT
GACTTAGCTGTGCTGGTAGAACGTATGGGGATTCCCACCCATGCAGCACGCCATCCCATTTGCCGAGTGTG
GTGGCTCACGCCTGTAATCCCAACACTTTGGGAGGCTGAAGCGGGCAGACCACCTGAGGTTGAGAGTTTGAG
ATCAGCCTGGCTAACATGGTGAAACCTCTAGCTTT
```

Filled site:

```
CAACATAGTAAGACCCCCATCTCTACAAAAACAAAGATTAGCCAGGTGTGGTGGTGCATGCCTGTAATCCC
AGCGCTTGGGAGGCTGAGGCAAGATGATAGCTTGAGCCAGAAGGTTGAGGCTGCAGTGAGCCATGATCACG
CCGGTGCACACTACAGCCTGGGTGACAGGTGTACCCTGTCTCTAAAAAATAAAAAAAGAGGCCAGGCATGGTG
GCTCACATCTGTAATTCCAGCACTTTGGGAGGCCAAGGCCGTTGGATCACCTCAGGTCAGGGGTTTGAGACC
AGCCTGGCTAACATGGTGAAACCCCATCTCTATTAATAAATACAAAAATTGGCCGGGCGCGGTGGCTCACGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAA
CACGGTGAAACCCCGTCTCTACTAAAAAATAAATAAATAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGT
CCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGAT
CCCGCA... [NEOcassette] [A tail and 3' unsequenced]
```

Alus flanking the insertion site.

CLONE 209

[LZ19]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 65,619,169

Strand: minus

DR: CAAAAAAAAAAAAAAAAAAAAA

ENDOsites: TTTG/AA

Empty site:

```
CTCTTCAGATTTATAAAATGACAAAACCTTGATAATTACCTGGAAACAATTTATTATTAAGTAACTAGGTTAACCCCT
AAATCCATCAAGAAAAACCACCTAACATATTCAGTGTAAAAAGAGACATTACGACTAGCCTGGCCAATATG
GCAAAACCCTGTCTTTACTAAAAATACAAATTTTAGCAGGGTATAGTGGTACGTGCCTGTAAGTCCCAGCTA
CTCAGGAGGCTAAGGCACCAGAATCGCTTGAATCTGGGAGGCAGAGGTTGCAGTGAGCAGAGATCGTGCCAC
TGCACCTCCTGGGCGACACAGCGAGACTGTTT↑CAAAAAAAAAAAAAAAAAAAAAA↓GAGAGAGACAACAATGAGA
CAGATTGGCACATGTATGCCCTGAGAAATAAATCAACAGCTCCCCTAAAATTCTCAATACGCTAGACAGAT
TTAAAAGTACAATCTGGTACTTTCTCTTTTTTTGAGATGGAGTCTCACCCCTGTCGGCCAGGCTGGAGTGCAAT
GCACGATCTGGCTCACTGCAACCTCTGCCTCCCCGGT
```

Filled site:

```
CTCTTCAGATTTATAAAATGACAAAACCTTGATAATTACCTGGAAACAATTTATTATTAAGTAACTAGGTTAACCCCT
AAATCCATCAAGAAAAACCACCTAACATATTCAGTGTAAAAAGAGACATTACGACTAGCCTGGCCAATATG
GCAAAACCCTGTCTTTACTAAAAATACAAATTTTAGCAGGGTATAGTGGTACGTGCCTGTAAGTCCCAGCTA
CTCAGGAGGCTAAGGCACCAGAATCGCTTGAATCTGGGAGGCAGAGGTTGCAGTGAGCAGAGATCGTGCCAC
TGCACCTCCTGGGCGACACAGCGAGACTGTTTCAAAAAAAAAAAAAAAAAAAAAAGGCCGGGCGCGGTGGCTCAGC
CCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCT
AACACGGTGAACCCCGTCTCTACTAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTA
GTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG
ATCCCGCA... [NEOcassette] [Atail] CAAAAAAAAAAAAAAAAAAAAAGAGAGAGACAACAATGAGAC
AGATTGGCACATGTATGCCCTGAGAAATAAATCAACAGCTCCCCTAAAATTCTCAATACGCTAGACAGATT
TAAAAGTACAATCTGGTACTTTCTCTTTTTTTGAGATGGAGTCTCACCCCTGTCGGCCAGGCTGGAGTGCAATG
CACGATCTGGCTCACTGCAACCTCTGCCTCCCCGGT
```

Alu flanking the insertion site.

CLONE 210

[LZ5]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 72,232,576

Strand: plus

DR: AAGCTGAGATC

ENDOsites: GCTT/AC

Empty site:

```
ATCTGCCCAGCAACTGCCAGCCTACCCTCGGACTGCCGTCACCCCTGTTATTGATCTTTGCAGCCAAGGATA
ATTATTTCAAACAATTACATAATCCTCCTCAATTTTTCTTTAAAAATCTTTGTCTTTGGCCAGGCACGGT
GGCTCACATCTGTAATCCCAGCACTTTGGGAGACCAAGGTAGGTGGATCACGAGGTCAGGAGATCGAGACCA
TCCTGGCTAACATGGTGAAACCCATCTCTACTAAAAATACAAAAAAAAAAAAAATTAGCCGGGTGTGGTGGCGG
GCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATGGTGTGAACCTGGGAGGCGGAGCCTGCAG
T↑AAGCTGAGATC↓ACACCACTGCACTCCAGCCTGGGTGACAGGGCAAGACCCCGTCTCAAAAAATAATAA
AAAAATAAAAAATAAAAAAACTTTGTCTTCATTGACTTATAGTAACTCATAAAAAATTA AAAAGTAAACT
TTGTCTTCCTGTACCTCCCCAAAAACACAGTTTACTGTGGCTTGCATATTCACATTGCAGTGCTCTATTC
```

Filled site:

```
ATCTGCCCAGCAACTGCCAGCCTACCCTCGGACTGCCGTCACCCCTGTTATTGATCTTTGCAGCCAAGGATA
ATTATTTCAAACAATTACATAATCCTCCTCAATTTTTCTTTAAAAATCTTTGTCTTTGGCCAGGCACGGT
GGCTCACATCTGTAATCCCAGCACTTTGGGAGACCAAGGTAGGTGGATCACGAGGTCAGGAGATCGAGACCA
TCCTGGCTAACATGGTGAAACCCATCTCTACTAAAAATACAAAAAAAAAAAAAATTAGCCGGGTGTGGTGGCGG
GCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATGGTGTGAACCTGGGAGGCGGAGCCTGCAG
TAAGCTGAGATCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGA
TCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATA
CAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGG
CGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC... [NEOcassette] [Atail]
AAGCTGAGATCACACCACTGCACTCCAGCCTGGGTGACAGGGCAAGACCCCGTCTCAAAAAATAATAAAAA
AATAAAAAATAAAAAAACTTTGTCTTCATTGACTTATAGTAACTCATAAAAAATTA AAAAGTAAACTTTG
TCTTCCTGTACCTCCCCAAAAACACAGTTTACTGTGGCTTGCATATTCACATTGCAGTGCTCTATTC
```

Alu flanking the insertion site; LTRs 5' and 3' of the insertion site.

CLONE 211

[LZ22]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 74,666,432

Strand: minus

DR: AAAAATTAAGAGATCT

ENDOsites: TTTT/AC

Empty site:

```
GGGAGTTCAAGACCAGCCTGACCAACATGGAGAAAACCCCGTCTCTACTAAAAATACAAAATTGGCCAGGGT
GGTGGCGCATGCCTGTAATCCCAGCTGCTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCCGGGAGACGGA
AGTTGCGGTGAGCCAAGATCGCGCCATTGCACTCCAGCCTGGGCAACAAGAGTGAAACTCCGTCTCAAAAA
AAAAAGAAAAGAAAAGAAAAAAAAAAGAAAAGAAAAGGAAATTGGT↑AAAAATTAAGAGATCT↓AACTAAA
GTATGGACTTAAGTTAATTACAATGTATTAATTTTCAGTTCATTAACGGTAACAAATATACTATAACAGTGCA
AGATGTTAATAAAAAGGGGAAATGGTACAGGATATATGCGAATCCTACTGTCTTAACAATTTTTCTGTAAAT
TTAAACCCTGTAAGATGAAGAGTCTATTTTTAGAGTACTGAGTAAAT
```

Filled site:

```
GGGAGTTCAAGACCAGCCTGACCAACATGGAGAAAACCCCGTCTCTACTAAAAATACAAAATTGGCCAGGGT
GGTGGCGCATGCCTGTAATCCCAGCTGCTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCCGGGAGACGGA
AGTTGCGGTGAGCCAAGATCGCGCCATTGCACTCCAGCCTGGGCAACAAGAGTGAAACTCCGTCTCAAAAA
AAAAAGAAAAGAAAAGAAAAAAAAAAGAAAAGAAAAGGAAATTGGTAAAAATTAAGAGATCTGGCCGGGCG
CGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAG
ACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGT
AGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCT
TGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [A tail] AAAAATTAAGAGATCTAACTAAAGTA
TGGACTTAAGTTAATTACAATGTATTAATTTTCAGTTCATTAACGGTAACAAATATACTATAACAGTGCAAGA
TGTTAATAAAAAGGGGAAATGGTACAGGATATATGCGAATCCTACTGTCTTAACAATTTTTCTGTAAATTTA
AAACCCTGTAAGATGAAGAGTCTATTTTTAGAGTACTGAGTAAAT
```

Alu at the 5'; LINE-1 flanking the insertion site.

CLONE 212

[GG14]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 117,267,531

Strand: minus

DR: AAGAATGGCAGACA

ENDOsites: TCTT/AA

Empty site:

```
GTTCTCTAATATGGCATTTCACCTTCTGTGTATTTTGCTGTGAGATCTTTGACAGTCATTTGGCCCCCTGA
GGGCCAGATGTCATCTTTCTTCACGTGTGAATTCTCAATAATCATAACTTTTCGAGAGTTGGCCATTCTTGTA
TGGTTTGGTTGACTTGGTAGGTTTACCTTCTGTTGGCATGTCAATGAACTTAAAGACTCGGCTCACAGATCG
CATCTGAAATAAAAAATAACAACATTTTTGTTTTT ↑ AAGAATGGCAGACA ↓ ATTTCACAATTAGTTTGATGCT
TCCTAAAAATAACTTGTAATAATGCAACACTTGCTATTTGTCACCTGGTTATTTGTCGGGCTTTTCAATGAA
CTAACAGGAAATAATTGGATATAATTAAGTTTAACTGAAGAGAAATAACCAGGACTTATATAAATGGGCT
CTGTATAGGCCTGTTTATTTTTGTGATCACCTAA
```

Filled site:

```
GTTCTCTAATATGGCATTTCACCTTCTGTGTATTTTGCTGTGAGATCTTTGACAGTCATTTGGCCCCCTGA
GGGCCAGATGTCATCTTTCTTCACGTGTGAATTCTCAATAATCATAACTTTTCGAGAGTTGGCCATTCTTGTA
TGGTTTGGTTGACTTGGTAGGTTTACCTTCTGTTGGCATGTCAATGAACTTAAAGACTCGGCTCACAGATCG
CATCTGAAATAAAAAATAACAACATTTTTGTTTTT AAGAATGGCAGACA GGCCGGGCGGGTGGCTCACGCCT
GTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAAC
ACGGTGAAACCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTC
CCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGC... [NEOcassette
] [Atail] AAGAATGGCAGACAATTTCACAATTAGTTTGATGCTTCCTAAAAATAACTTGTAATAATGCAA
CACTTGCTATTTGTCACCTGGTTATTTGTCGGGCTTTTCAATGAACTAACAGGAAATAATTGGATATAATTA
AAAGTTTAACTGAAGAGAAATAACCAGGACTTATATAAATGGGCTCTGTATAGGCCTGTTTATTTTTGTGAT
CACCTAA
```

No repetitive sequences in the immediate proximity.

CLONE 213

[LZ63]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 7

5' position: 156,719,757

Strand: minus

DR: AAAAAAAGCTCTTA

ENDOsites: TTTT/GT

Empty site:

GTTAGCCTACATTAATAATGACGGCCAATGATTGGAAGAAAAACATCCTTATGTTCCCCTGCAGAGTGTGA
GATTGATGAGAATGGATTACCCTGCCAAGGGAACCAAAAAATATTACAACCTTTTATTCCTCTGTGGCTTGG
ACGAGTGTGTATTCAATTTCTACGCTATTAC **↑ AAAAAAAGCTCTTA ↓** CAACGATTCTGAGCTAAAGACACATT
AAATCACCACCTTAATTATATCGAAACAGGACTCTGAGATTCTATCACTAATCTAGTTTAATCTTGGCAACT
CAAGCTCATCTAATATTTTATTTCTATTTCAGGTCATATTAGTCAATTGGGCATTAGCAGCAGTACTTATTTA
TCTTATCAGTTTTATTTTTGGTAAAGTAGTA

Filled site:

GTTAGCCTACATTAATAATGACGGCCAATGATTGGAAGAAAAACATCCTTATGTTCCCCTGCAGAGTGTGA
GATTGATGAGAATGGATTACCCTGCCAAGGGAACCAAAAAATATTACAACCTTTTATTCCTCTGTGGCTTGG
ACGAGTGTGTATTCAATTTCTACGCTATTACAAAAAAGCTCTTA**GGCCGGGCGCGGTGGCTCACGCCTGTAA**
TCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGG
TGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAG
CTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGC
C... [NEOcassette] [Atail] AAAAAAAGCTCTTACAACGATTCTGAGCTAAAGACACATTAATCACC
ACTTTAATTATATCGAAACAGGACTCTGAGATTCTATCACTAATCTAGTTTAATCTTGGCAACTCAAGCTCA
TCTAATATTTTATTTCTATTTCAGGTCATATTAGTCAATTGGGCATTAGCAGCAGTACTTATTTATCTTATCA
GTTTTATTTTTGGTAAAGTAGTA

No repetitive sequences in the immediate proximity.

CLONE 214

[LZ47]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 8

5' position: 97,323,906

Strand: plus

DR: GAAGACTAAGGGCCATTGTCATTTGTTTC

ENDOsites: CTTC/TA

Empty site:

```
ATCCAGCAAATCTATACATGAAGTTCAATCCCCAAGGTGGCTTAGCTTCAAGACCTAATCGAGGTTCTAAAT
GGAGTATGAGAGTATAAAGAAAAATTGAGGAAAACCCATTATAGAGAAGAAATTACTTTTTCACAGATTTTTTA
AACAGGACATTCTTCCAATTAATAAAGTAATACATGCACAATGATAAAAAATTCAGAAAAGGATCTAGAAGGAA
CTAAAGATCACCCAAAGAAGTCAACCATTTAGAGATAATCATTGTTAATATTTAATGTCATTCCTTTCCAT
TTTTCTGTGTATGTGTGTGTGTGTTTCCAGCTGTCATCTAGATTCTGAAGGGTGACATAGTTTTAAAGGCTA
AAAATGTTGATACTCCGGTTAGATTTAGGCAGGTTCCCTCCCGACCCTTA↑GAAGACTAAGGGCCATTGTCAT
TTGTTTC↓TCTTAGGTTCTATGGTGTAAGCTGATTTTCTTACCCAAAGTGGTTTGTGTAAAAGGTGATAAG
ATGGATTTGGTTTCCTTTGTTTCATGATATAGCAGGAG
```

Filled site:

```
ATCCAGCAAATCTATACATGAAGTTCAATCCCCAAGGTGGCTTAGCTTCAAGACCTAATCGAGGTTCTAAAT
GGAGTATGAGAGTATAAAGAAAAATTGAGGAAAACCCATTATAGAGAAGAAATTACTTTTTCACAGATTTTTTA
AACAGGACATTCTTCCAATTAATAAAGTAATACATGCACAATGATAAAAAATTCAGAAAAGGATCTAGAAGGAA
CTAAAGATCACCCAAAGAAGTCAACCATTTAGAGATAATCATTGTTAATATTTAATGTCATTCCTTTCCAT
TTTTCTGTGTATGTGTGTGTGTGTTTCCAGCTGTCATCTAGATTCTGAAGGGTGACATAGTTTTAAAGGCTA
AAAATGTTGATACTCCGGTTAGATTTAGGCAGGTTCCCTCCCGACCCTTAGAAGACTAAGGGCCATTGTCATT
TGTTTCCACGACAGAGCGAGTCGACGTCTC... [NEOcassette] AAAAAAAAAAAAAAAAAAAAACA
TTACAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAGA
CTAAGGGCCATTGTCATTTGTTTCTCTTAGGTTCTATGGTGTAAGCTGATTTTCTTACCCAAAGTGGTTTGT
TGTAAGGGTATAAGATGGATTTGGTTTCCTTTGTTTCATGATATAGCAGGAGGAGAATTCACACATCTCC
CAGATTTCTGACAGCGCAGAGGTGGCGCTCCCGCTTCATGTGTGAGGGCCCTGTGTACTGGAAGAAGGGATG
TGGGCCCT
```

LINE-1 at the 5'.

Alu insert truncation: missing between 264 bp of 5' Alu sequence.

These 2 bases untemplated bases (absent in both the genomic sequence and the Alu rescue vector).

CLONE 215

[TZ23]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 8

5' position: 102,554,170

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
ATGCTAATGATTATTGAAAAC TGT TTTATCTAGTTTAACTATACTTGAAATTACTAGCAAATTATAGACCA
ACCCATGTCTCAATGTAAGGCAATGTAAGCTACTTTGCAAACACAGTGTATTCAGGTAATGCTGTGTA
ATGATATGGAACAGCAGTAATGAGACGGACTCTATTGTAGATCCTGTGCTACAACAGAATTCTACAATATTT
AGGTGATATAAAAACTACAAGCTAC ↑ ↓ AAAGACCATCATGGAAAGTGAGGGAGTCTATACGGGGAATTTACA
GTAGAAACAGAAATGGGTGGGAGTCAATCAATCCTAACCAAGCCAGCCTTGCATAAAGCAGCAATTGACAAA
CAAGGCAATGTCTTCAGGTGAGTATGATGACTCAAGTACCCAAAGACCATGACAGTCCTCAGCATTTCCT
GCTGGGTGCTC
```

Filled site:

```
ATGCTAATGATTATTGAAAAC TGT TTTATCTAGTTTAACTATACTTGAAATTACTAGCAAATTATAGACCA
ACCCATGTCTCAATGTAAGGCAATGTAAGCTACTTTGCAAACACAGTGTATTCAGGTAATGCTGTGTA
ATGATATGGAACAGCAGTAATGAGACGGACTCTATTGTAGATCCTGTGCTACAACAGAATTCTACAATATTT
AGGTGATATAAAAACTACAAGCTAC GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGC
CGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTA
AAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGC
AGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGAT... [NEOcassette] [A tail
and 3' unsequenced]
```

No repetitive sequences in the immediate proximity.

CLONE 216

[LZ6]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 22,157,141

Strand: plus

DR: AAAGAATTATTTGTA

ENDOsites: CTTT/AA

Empty site:

```
AATACTCTAAATTCTTAGAACCCAGCCCAGTACTTGCTAGTCATCATTTTAAATACATTGAATGATAGAGAAA
ATTCTTTTGGTACACAAACCTTATACCAGCGTTGTCAAATTATAATGATAAAGTAGCTCATTTTAAGCGCGT
CCTGGGTTGGGAACTTAACAATTTTAAACTTGAATAAAATTCATAAAATGACATAGTATGGTTACAATG
TCTGTCTACAGAGTCAGGGCAAGAACAAGAAAATTGAAAGAAGATTGTTTTAGTGTAGTAAAATTACTGGA
TAATTTTCATTTCTTTGCTCTTT AAAGAATTATTTGTA AAGGGTATTTGAAATGAAAACAAGATTGGAG
AAAAACAACCTTGAAGAAAATCATAGGCAAATAACAATAATGATTGAAGAGTTGTGAATAAGGAGAGTTAGG
AATCAAGTGGTTCCAGGCTTGCAGAATCTGAAAGGAGCCTAGAGTGAGGAGGTTGATCTGTGAAGGATGATG
ATGATCTCCATTAAGGACCAGACAG
```

Filled site:

```
AATACTCTAAATTCTTAGAACCCAGCCCAGTACTTGCTAGTCATCATTTTAAATACATTGAATGATAGAGAAA
ATTCTTTTGGTACACAAACCTTATACCAGCGTTGTCAAATTATAATGATAAAGTAGCTCATTTTAAGCGCGT
CCTGGGTTGGGAACTTAACAATTTTAAACTTGAATAAAATTCATAAAATGACATAGTATGGTTACAATG
TCTGTCTACAGAGTCAGGGCAAGAACAAGAAAATTGAAAGAAGATTGTTTTAGTGTAGTAAAATTACTGGA
TAATTTTCATTTCTTTGCTCTTTAAGAATTATTTGTAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCA
GCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAA
CCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTAC
TCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACT
GCACT... [NEOcassette] [Atail] AAAGAATTATTTGTAAAGGGTATTTGAAATGAAAACAAGATTGG
AGAAAACAACCTTGAAGAAAATCATAGGCAAATAACAATAATGATTGAAGAGTTGTGAATAAGGAGAGTTA
GGAATCAAGTGGTTCCAGGCTTGCAGAATCTGAAAGGAGCCTAGAGTGAGGAGGTTGATCTGTGAAGGATGA
TGATGATCTCCATTAAGGACCAGACAG
```

No repetitive sequences in the immediate proximity.

CLONE 217

[GG32,GG44]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 34,817,513

Strand: minus

DR: AAGAGATTGTC

ENDOsites: TCTT/AT

Empty site:

```
ATTCTCACTTTTTAAAAAGAACTTCAATCCTATATCTTGTTCATACACAAAATTACTAGTCCAATAACAAAA
TGATCCATAAAAAGAAAAAATTGATAAATTCTACCTCATCAGAATTAAGAACTTCTGTTCTTTAAAAGACAT
GGTTGAGAGAATGAAAGGACAAGCCACGCTCTGGTAGAAAATATTTGCAAATCACGTGTCTGATAAAGAACT
TGTATTCAGAATATATAAAGACCTCTCAAACTCATTAAGTAATTTAAAAAACAACAACACTCCACAAAAA
GAAGATAT↑AAGAGATTGTC↓CCCAGGACTTTGGGAGGTGAAAGCAGGAGGATCGTTTGAGGCCAAGAGTTT
GAGACCAGCCTGGGCAACATAGTGAGACCCTGTCTCTACAAAAAATAAAAAAATTAGCTGGGCACAGTGATG
TGCACCTGTAGTCCCAGCTACTTGGGAGACTGCGACAGGAAGATGGCTTGACCCAGGAGTTTGAGGCTGCA
GTGAGCTATGATTGTGCCACTACACTCCAGCC
```

Filled site:

```
ATTCTCACTTTTTAAAAAGAACTTCAATCCTATATCTTGTTCATACACAAAATTACTAGTCCAATAACAAAA
TGATCCATAAAAAGAAAAAATTGATAAATTCTACCTCATCAGAATTAAGAACTTCTGTTCTTTAAAAGACAT
GGTTGAGAGAATGAAAGGACAAGCCACGCTCTGGTAGAAAATATTTGCAAATCACGTGTCTGATAAAGAACT
TGTATTCAGAATATATAAAGACCTCTCAAACTCATTAAGTAATTTAAAAAACAACAACACTCCACAAAAA
GAAGATATAAGAGATTGTCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGC
GGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAA
AATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGA
ATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCC... [NEOcassette] [Atail]
AAGAGATTGTCCCCAGGACTTTGGGAGGTGAAAGCAGGAGGATCGTTTGAGGCCAAGAGTTTGAGACCAGCC
TGGGCAACATAGTGAGACCCTGTCTCTACAAAAAATAAAAAAATTAGCTGGGCACAGTGATGTGCACCTGTA
GTCCCAGCTACTTGGGAGACTGCGACAGGAAGATGGCTTGACCCAGGAGTTTGAGGCTGCAGTGAGCTATG
ATTGTGCCACTACACTCCAGCC
```

LINE-1 at the 5'; Alu at the 3'.

CLONE 218

[GG35,GG36]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 123,725,907

Strand: minus

DR: AAAAGCCGTATGTG

ENDOsites: TTTT/AA

Empty site:

```
GACTCAAAGATCTCTTGCAACTCTAAAGTCAGAGATTTTAACCCATACATTGTAGAAAAGCAAATAAATGGA
GACCCAAATTTAAAAATTAAGGTCTACTAAGGAAGAGTGTCTTTTCTTAAAGACTCTTATTCACCTATTTTAT
TATATTTTCTAACCTCTTTTTTATTTTAGCTACAAGCCCAGCAGGGAAGAATCATCATCTGGATCCTCTCAT
GCGGTGATGGACATCTCTTGCCTACTGGAATCAGTGCAAATGAAGAAGACTT↑AAAAGCCGTATGTG↓TTT
TCTTTTAAATCGTGTTGTGAATGCTTCATTTTCTTTTCTGAATTATTTTATAGACAATTTTACTTTCTTTCA
TTTGAATATACCACTTTTATAGAATCACCCAGAATATTTTTTTTTTTTTTTGGAGGTGGATTTTCACTCTTGTT
GCCCAGGCTGGAGTGTGATGCAGTCTTGGCTCATTGCAACCGCACCTCTCGGG
```

Filled site:

```
GACTCAAAGATCTCTTGCAACTCTAAAGTCAGAGATTTTAACCCATACATTGTAGAAAAGCAAATAAATGGA
GACCCAAATTTAAAAATTAAGGTCTACTAAGGAAGAGTGTCTTTTCTTAAAGACTCTTATTCACCTATTTTAT
TATATTTTCTAACCTCTTTTTTATTTTAGCTACAAGCCCAGCAGGGAAGAATCATCATCTGGATCCTCTCAT
GCGGTGATGGACATCTCTTGCCTACTGGAATCAGTGCAAATGAAGAAGACTTAAAAGCCGTATGTGAGGCC
GGGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGGAGA
TCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGT
GGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCCGA
GCTTGCAGTGAGCCGAGATCCCGCCACTGCACT... [NEOcassette] AAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAGCCGTATGTGTTTTCTTTTAAATCGTGTTGTGAATGCTTCATTTTCTTTT
TGAATTATTTTATAGACAATTTTACTTTCTTTTCAATTTGAATATACCACTTTTATAGAATCACCCAGAATAT
TTTTTTTTTTTTTTGGAGGTGGATTTTCACTCTTGTTGCCCAGGCTGGAGTGTGATGCAGTCTTGGCTCATTGCA
ACCGCACCTCTCGGG
```

Alu at the 3'.

An extra A added immediately 5' of Alu.

CLONE 219

[GG28,GG46]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 129,894,237

Strand: minus

DR: AGAAATGCAAATTCCC

ENDOsites: TTCT/AA

Empty site:

TTTCACATTCAGACATCACAAATGTGGCTTAAATGCTACATTTTCCCAGGGTCAATGACACTCAGAAGAGTGA
AAGGGCAAGACAGCCAGCTCCCAGGAAATGCCTGAAAAAGCCAAACCGCATTTTTTCTGCATGATACGTAA
CCAGCATCTGCACTACCAAACAGCTCTCAGATGCAGGTTATGGTCACTGCCAGCCCAGTCCTGACTCTCCT
TCATGGCAAACCTCCTCTATCTCGAGGAGTGGTTCCCACAGCAAGGGCCTCATGTGAACTTGTT↑**AGAAATGC**
AAATTCCC↓GGGCCCCAGATTTACTGAATCAGAAACTGGGGGTGGGGCCAGCAAACCTTTTAAACAAGCCCTC
AGTTGATCTTGAAGCGCAAAGCTCGAGAACCCTGACCTAGGATGGGCTGAAGTGGTGAGCACAAGGACCC
ACCACTGACTGGGTGCCTGCTATGCATATCTCAAGCACACACCTCCAGGAACCTTCACAATAGTT

Filled site:

TTTCACATTCAGACATCACAAATGTGGCTTAAATGCTACATTTTCCCAGGGTCAATGACACTCAGAAGAGTGA
AAGGGCAAGACAGCCAGCTCCCAGGAAATGCCTGAAAAAGCCAAACCGCATTTTTTCTGCATGATACGTAA
CCAGCATCTGCACTACCAAACAGCTCTCAGATGCAGGTTATGGTCACTGCCAGCCCAGTCCTGACTCTCCT
TCATGGCAAACCTCCTCTATCTCGAGGAGTGGTTCCCACAGCAAGGGCCTCATGTGAACTTGTTAGAAATGCA
AATTCCC**GGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACG**
AGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAAT
TAGCCGGGCGTGGTAGCGGGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACC
CGGGAGGCGGAGCTTGCACTGAGCCGAGATCCCGCA.. [NEOcassette] [Atail]AGAAATGCAAAT
TCCCAGGGCCCCAGATTTACTGAATCAGAAACTGGGGGTGGGGCCAGCAAACCTTTTAAACAAGCCCTCAGTTG
ATCTTGAAGCGCAAAGCTCGAGAACCCTGACCTAGGATGGGCTGAAGTGGTGAGCACAAGGACCCACCAC
TGACTGGGTGCCTGCTATGCATATCTCAAGCACACACCTCCAGGAACCTTCACAATAGTT

hAT-Charlie DNA element flanking the insertion site.

CLONE 220

[LZ58]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 9

5' position: 131,304,493

Strand: minus

DR: AGAATGGGTCACTTCA

ENDOsites: TTCT/AT

Empty site:

GACATGACTTCTCCCAAATACAGCTGTCTTCAGTTCCTTTATTATTGCCTCTTTGCAGCAGCGGTGATGGTG
GGTGATGGAGTGACATCAGGAGCGCCAGAAGGAGGAAGTCAGAAAGCCCTTGGGGACAGGAATGTCCTTGTG
TTGCAAACATTTCTGGTCAGGGAAAGATGAAGAAAACAGAATGAGTTTCTGATAACAGTGTTCCTCAACTT
AATGGTTAAAAGAAGCTTTATTATTAATTTTTTTTTGGCACCTTAATTAACAATTCAT † **AGAATGGGTCACTT**
CA † GGCCACTCAAGAGTACCAGTGAACACTCCCCACAAACACACCCTGCCACAAGACATTTAGCACAGAGG
AACAGATCCATGGCCACTGCCTCTGCAGTATCAAAGAGAATTAGTCTTTCCACAAAACAAATTTAACAGCC
AATCTCTGGATTTCTGTAGTGGCTTTAGTCAGGCATATTTATCATCATATTAGCAGTGT

Filled site:

GACATGACTTCTCCCAAATACAGCTGTCTTCAGTTCCTTTATTATTGCCTCTTTGCAGCAGCGGTGATGGTG
GGTGATGGAGTGACATCAGGAGCGCCAGAAGGAGGAAGTCAGAAAGCCCTTGGGGACAGGAATGTCCTTGTG
TTGCAAACATTTCTGGTCAGGGAAAGATGAAGAAAACAGAATGAGTTTCTGATAACAGTGTTCCTCAACTT
AATGGTTAAAAGAAGCTTTATTATTAATTTTTTTTTGGCACCTTAATTAACAATTCATAGAATGGGTCACTTC
AGGCCGGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCA
GGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCG
GGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAG
GCGGAGCTTGCACTGAGCCGAGATCCCGCCACTGCCTCC... [NEOcassette] [A tail] AGAATGGGT
CACTTCAGGCCACTCAAGAGTACCAGTGAACACTCCCCACAAACACACCCTGCCACAAGACATTTAGCACA
GAGGAACAGATCCATGGCCACTGCCTCTGCAGTATCAAAGAGAATTAGTCTTTCCACAAAACAAATTTAAC
AGCCAATCTCTGGATTTCTGTAGTGGCTTTAGTCAGGCATATTTATCATCATATTAGCAGTGT

No repetitive sequences in the immediate proximity.

CLONE 221

[LZ24]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 73,047,314

Strand: plus

DR: N/A

ENDOfsite: N/A

Empty site:

```
TTCCAGCTGCAGGCAGTCCCAGGCCCCCATCACTCCCAGGGTGACCCTGGGGAAGTGGCAGCCCTTTCTGGA
CCTTCTTTGCCGTCTTACAATGAGGTGGGGCATAGACAGTGACTTCCC GGATCCCCTCTGGTGCTGACGGTT
ACAGCCCAGCTCTATCTGCCAGTTCTGAGTCCCTACACTGTAGGCAAAGGGGTCTCACTAGGAAGGCCAGG
CTTCAGCAGAGGGGCCCTCGTCAGGGTGAGGGACGGGTTTGGGGGAGGGCAGAGGGTT↑↓CCAGAGCCAAGCC
ATCCAGTTGACAGCTGCCGCCTTGCAAGTGAATGGCGGCTGGTCCAGCTGGGCAGAGTGGTCACCCTGCTCCA
ACCGCTGTGGCCGAGGCTGGCAGAAGCGCACCCGGACCTGCACCAACCCCGCTCCACTCAACGGAGGGGCCT
TCTGCGAGGGCCAGGCATTCCAGAAGACCGCCTGCACCACCAT
```

Filled site:

```
TTCCAGCTGCAGGCAGTCCCAGGCCCCCATCACTCCCAGGGTGACCCTGGGGAAGTGGCAGCCCTTTCTGGA
CCTTCTTTGCCGTCTTACAATGAGGTGGGGCATAGACAGTGACTTCCC GGATCCCCTCTGGTGCTGACGGTT
ACAGCCCAGCTCTATCTGCCAGTTCTGAGTCCCTACACTGTAGGCAAAGGGGTCTCACTAGGAAGGCCAGG
CTTCAGCAGAGGGGCCCTCGTCAGGGTGAGGGACGGGTTTGGGGGAGGGCAGAGGGTTGGCCGGGCGCGGTGG
CTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATC
CTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAATACAAAAAATTAGCCGGGCGTGTTAGCGG
GCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAG
TGAGCCGAGATCCCGCC...[NEOcassette][A tail and 3' unsequenced]
```

No repetitive sequences in the immediate proximity.

CLONE 222

[LZ1a,2a,3a,5a]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 91,034,339

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
TTGTGTGTTATAGGAGGAAGAAAACCTCCAATAAAGTCTGTCTCAACAGAGGTCACCTCCCACCCATCAGACA
CGGAAATTCAGTACCTGCTGGGAGTTCTGGTGGCCATCCTTATCCCTAGTCTCTTGTCATTGTTCAAGGAT
TAGGGAAAATTCCTCTCAACCTGCTAGATTTTCAGCAGCAATAAACGGGATTGTTTATAGGGTCAGTGAGCCC
AGGATACTAAGGGACAGACATCAGTCAAAGCATTTTT↑↓CCAAAAAATCCTTTATATTTAATCAAATCAC
TATAAAGACATGATGTGTCTAGTTTCTCAGATGTTCAACCCAACAGTCTCTTTCTTTAACTTCTGGGCTGC
CTTTCAGAACTGAGCAGAGTTGTATCCAACACAAAAGACTGTCTGGACTCAGGCACCGTACACATACCCCGT
CACTGCTCCTCTCCATTGAGGTA
```

Filled site:

```
TTGTGTGTTATAGGAGGAAGAAAACCTCCAATAAAGTCTGTCTCAACAGAGGTCACCTCCCACCCATCAGACA
CGGAAATTCAGTACCTGCTGGGAGTTCTGGTGGCCATCCTTATCCCTAGTCTCTTGTCATTGTTCAAGGAT
TAGGGAAAATTCCTCTCAACCTGCTAGATTTTCAGCAGCAATAAACGGGATTGTTTATAGGGTCAGTGAGCCC
AGGATACTAAGGGACAGACATCAGTCAAAGCATTTTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACC
CCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCG
GGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCA
CTCCAGCCTG...[NEOcassette][A tail and 3' unsequenced]
```

LTR flanking the insertion site.

CLONE 223

[GG45]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 91,391,732

Strand: minus

DR: AAAAAAAAAAAAAAAAAACA

ENDOsites: TTTT/AA

Empty site:

```
AATTCAGACTCATGGTTTTTTATTCCAAAAGTCACTGTGTTCCACTTGTCTCTTATTGTCCTGAGTGAGCGT
TTTGAAAAGTGTTGGGATTTTAAACAACCTTTTTCTGCATTTTAAACATTATACAAAAGTAGAGAATATAGCAT
AATGAACTGCCAAGTACTTATCACTCAGCTTCTATAATTATCAAATCATGTCCAATTTTATAATATTGAAGC
AGACCTCAGAAATCATATGTTTAGTATTAAATGTTTTGTCTTTATTTCCAAAAGAAAAGAACCCTTTT↑AA
AAAAAAAAAAAAACA↓CACACACACACACACAATCTGTTATTTGCTGTAAAAGTTAGCAGTGTATTATATC
CAGTTGAGACTATTGTGTTTTATGATGCACAATTAGATAAATTCAGTTATCTAACCACAATTAATAATTGTTA
CATCTCATTGTAGGTGGATAATTGAAAACCTGATTTGTGTTGCCCTGGAGAATCCTTTTCATTTGCCCAT
```

Filled site:

```
AATTCAGACTCATGGTTTTTTATTCCAAAAGTCACTGTGTTCCACTTGTCTCTTATTGTCCTGAGTGAGCGT
TTTGAAAAGTGTTGGGATTTTAAACAACCTTTTTCTGCATTTTAAACATTATACAAAAGTAGAGAATATAGCAT
AATGAACTGCCAAGTACTTATCACTCAGCTTCTATAATTATCAAATCATGTCCAATTTTATAATATTGAAGC
AGACCTCAGAAATCATATGTTTAGTATTAAATGTTTTGTCTTTATTTCCAAAAGAAAAGAACCCTTTTAAA
AAAAAAAAAAAAACAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGG
ATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACA
AAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCG
TGAACCCGGGAGGCCGAGCTTGCACTGAGCCGAGATCCCGCA... [NEOcassette] [Atail] AAAAAA
AAAAAAAAACACACACACACACACAATCTGTTATTTGCTGTAAAAGTTAGCAGTGTATTATATCCAGTT
GAGACTATTGTGTTTTATGATGCACAATTAGATAAATTCAGTTATCTAACCACAATTAATAATTGTTACATCT
CATTTGTAGGTGGATAATTGAAAACCTGATTTGTGTTGCCCTGGAGAATCCTTTTCATTTGCCCAT
```

LINE-1 at the 5'.

CLONE 224

[LZ37]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 112,270,251

Strand: plus

DR: AAGACTCATGGAC

ENDOsites: TCTT/AA

Empty site:

```
GTCTCGCCCAACTTTGGCTTCATGGGCCAGCTCCTGCAGTACGAATCTGAGATCCTGCCCTCCACGCCCAAC
CCCCAGCCTCCCTCCTGCCAAGGGGAGGCAGCAGGCTCTTCACTGATAGGCCATTTGCAGACACTGAGCCCT
GACATGCAGGGTGCCTACTGCACATTCCCTGCCTCGGTGCTGGCACCAGGTGCCTACCCACTCAACAGTCTCA
GAGCTCAGCAGAAGCCCTGTGGCAACGGCCACATCCTGCTAAAACCTGGGATGGAGGAATCGGCCAGCCCCA
AGAGCAACTGTGATTTTTGTTTTT † AAGACTCATGGAC † ATTTTCATACCTGTGCAATACTGAAGACCTCATT
CTGTCTATGCTGCCCCAGTGAGATAGTGAGTGGTCACCAGGCTTGCAAATGAACTTCAGACGGACCTCAGGGT
AGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGGAGCACAGCATGTGCTGACTACTGTACTTCCAGAC
CCCTGCCCTCTTGGGACTGCCCA
```

Filled site:

```
GTCTCGCCCAACTTTGGCTTCATGGGCCAGCTCCTGCAGTACGAATCTGAGATCCTGCCCTCCACGCCCAAC
CCCCAGCCTCCCTCCTGCCAAGGGGAGGCAGCAGGCTCTTCACTGATAGGCCATTTGCAGACACTGAGCCCT
GACATGCAGGGTGCCTACTGCACATTCCCTGCCTCGGTGCTGGCACCAGGTGCCTACCCACTCAACAGTCTCA
GAGCTCAGCAGAAGCCCTGTGGCAACGGCCACATCCTGCTAAAACCTGGGATGGAGGAATCGGCCAGCCCCA
AGAGCAACTGTGATTTTTGTTTTT AAGACTCATGGAC GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGC
ACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACC
CCGTCTCTACTAAAAAAAAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCT
ACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCA
CTGCACTC... [NEOcassette] [Atail] AAGACTCATGGACATTTTCATACCTGTGCAATACTGAAGACC
TCATTCTGTCTATGCTGCCCCAGTGAGATAGTGAGTGGTCACCAGGCTTGCAAATGAACTTCAGACGGACCTC
AGGGTAGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGGAGCACAGCATGTGCTGACTACTGTACTTCC
CAGACCCCTGCCCTCTTGGGACTGCCCA
```

No repetitive sequences in the immediate proximity.

CLONE 225

[LZ59]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 117,012,451

Strand: minus

DR: GAAAAACTCATCAT

ENDOsites: TTTC/AT

Empty site:

```
TCAACTTCTCCCTTTGTCCAATTCTGCATCATCCCCCTACCTCTTGCAAAGGCATTGATTGTAAGGGTACTC  
CCAATTAACATCATGAATACTAAACTCTACCTCAGAGTCTGCTTTCCAGAGGACTCAAACCTCTGACTTGTTT  
CAGGAATGGTATACTAAAGTAAGAAATAAGTTGGAGTTTGAGAGCTGGATCATAACATTGCCAGGCTAGCAAT  
↑ GAAAAACTCATCAT ↓ TGGTGGTAGGTGGAGCACAGATAGCTCTTGGCACAAAGTGGCCATTAAGCAACTGC  
AAAAACTTAAACTAGTGATAAAGTAGGAAGGCATGCCAATAGAAGGGAATAGTATAGCAGGAGTGAAGTACT  
AGATGCTTGAAAAACATGAGGAAGGGTAACTATTAAGATACTAGAATTGCATGTCTACTGCTTAGCCCCAGT
```

Filled site:

```
TCAACTTCTCCCTTTGTCCAATTCTGCATCATCCCCCTACCTCTTGCAAAGGCATTGATTGTAAGGGTACTC  
CCAATTAACATCATGAATACTAAACTCTACCTCAGAGTCTGCTTTCCAGAGGACTCAAACCTCTGACTTGTTT  
CAGGAATGGTATACTAAAGTAAGAAATAAGTTGGAGTTTGAGAGCTGGATCATAACATTGCCAGGCTAGCAAT  
GAAAAACTCATCATAGGCCGGGCGCGGTGGCTCAGCGCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGC  
GGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATA  
CAAAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAA  
TGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette]  
[Atail] GAAAAACTCATCATTGGTGGTAGGTGGAGCACAGATAGCTCTTGGCACAAAGTGGCCATTAAGCA  
ACTGCAAAAACTTAAACTAGTGATAAAGTAGGAAGGCATGCCAATAGAAGGGAATAGTATAGCAGGAGTGAA  
GTACTAGATGCTTGAAAAACATGAGGAAGGGTAACTATTAAGATACTAGAATTGCATGTCTACTGCTTAGCC  
CCAGT
```

LTR flanking the insertion site.

An extra A added immediately 5' of Alu.

CLONE 226

[BC1-16,31,34]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 10

5' position: 127,918,647

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
TACAGCATTTCGACTCAGCAGTTTCACATCAGGGATTTATCCTCAGGAAAGTATAGTGTATCCCAAGGCATAT
GCAAAAAGTATATTTCATTGCAGTGTGGTCATGATAGGCATTGAAGATGTTGTATTGAACGTCAGATAAATGCC
AGGAGCAGTGTAGCTGCAGGAAATATAAGGTGTGAGGGGCGGGTAGAAACAGATCCAGTCCCTGACCCCTC
TACGAGTGTACCCTGCATCTGAGGTACAGATAAGTAATTTGGCCATAAGAGCCCAATGCCATGAGTGCTTTG
GGGGCTGGAAGATCACACAGAAAAGGAACCTTCCCTGGGCTTGGTAAGACAGGAAAGGAGAGTACCACAAGA
AGGCTTCCTG↑↓GAGGAAGTTGCAGCTCAGCCAAAATGGAAGGATCAGTAAGAATTAGCCACATATAAAGGG
CAGGTAGGAATTGGCCAAGCCAAGGATGTGGACTGACACCTTAAGGGCCAAACACTGCTGGAGAAGCACAAAC
TCGTTGAGCACCTGCATGTGGGATACTAGAGTGCGGCAGCGGCCAGGTACAAGGGCCTTGAGAGTCT
```

Filled site:

```
TACAGCATTTCGACTCAGCAGTTTCACATCAGGGATTTATCCTCAGGAAAGTATAGTGTATCCCAAGGCATAT
GCAAAAAGTATATTTCATTGCAGTGTGGTCATGATAGGCATTGAAGATGTTGTATTGAACGTCAGATAAATGCC
AGGAGCAGTGTAGCTGCAGGAAATATAAGGTGTGAGGGGCGGGTAGAAACAGATCCAGTCCCTGACCCCTC
TACGAGTGTACCCTGCATCTGAGGTACAGATAAGTAATTTGGCCATAAGAGCCCAATGCCATGAGTGCTTTG
GGGGCTGGAAGATCACACAGAAAAGGAACCTTCCCTGGGCTTGGTAAGACAGGAAAGGAGAGTACCACAAGA
AGGCTTCCTGGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATC
ACGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAA
AATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGA
ACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAGCCTG... [NEOcassette] [A
tail and 3' unsequenced]
```

LINE-1 at the 5'; L2 flanking the insertion site.

CLONE 227

[LZ9]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 28,671,379

Strand: plus

DR: AGGAGTACTTTTC

ENDOsites: TCCT/AT

Empty site:

```
CTAAACAATGGACAGTAAGAGACAAATTCTAAACAAGGGTTAGTAACAAAATTCGAACCAATTTTGACATTG
TATTTTAGTGTTCCCTTACTACTCTAAACTCTGTAAGAGCAGGAACTGTATCTGCCAGTTTTTATTGCTTTT
TACATTCGTCTTTTCAACTAGGAATGCATTCCACTTCAAATAACAGAATGCCCTACTGGCAGTAGCTTAGCT
AAAT↑AGGAGTACTTTTC↓TCTCATAAGTTTGGAGATAGTAGCTGCTGGTCTGGTTCAATTATTCGACAATA
TTAACAAGAACCTGGACAATTCTTTGTTTTTCTGGTCTACCTTTCTGAGCTTTTCTACCATAGTTTTATCA
TTTATGCTCTCAAGATGGCTGCAACAGATCCAGAAGTCATGACTTCATTCAAAGTCAGAAAGCAAGAGGACT
GCA
```

Filled site:

```
CTAAACAATGGACAGTAAGAGACAAATTCTAAACAAGGGTTAGTAACAAAATTCGAACCAATTTTGACATTG
TATTTTAGTGTTCCCTTACTACTCTAAACTCTGTAAGAGCAGGAACTGTATCTGCCAGTTTTTATTGCTTTT
TACATTCGTCTTTTCAACTAGGAATGCATTCCACTTCAAATAACAGAATGCCCTACTGGCAGTAGCTTAGCT
AAATAGGAGTACTTTTCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAA
ATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAA
TGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCGCCACTGCACTC...[NEOcassette] [
Atail]AGGAGTACTTTTC
```

TCTCATAAGTTTGGAGATAGTAGCTGCTGGTCTGGTTCAATTATTCGACAATA
TTAACAAGAACCTGGACAATTCTTTGTTTTTCTGGTCTACCTTTCTGAGCTTTTCTACCATAGTTTTATCA
TTTATGCTCTCAAGATGGCTGCAACAGATCCAGAAGTCATGACTTCATTCAAAGTCAGAAAGCAAGAGGACT
GCA

LTR flanking the insertion site.

CLONE 228

[GG17]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 46,640,505

Strand: plus

DR: TAAAGTGTGGGGT

ENDOsites: TTTA/GA

Empty site:

```
TGTTTTATGACTGTTAGTCCTTTTCATGTGTGCATGTAGTGGCTCCAGCTCAATTATGAGGTTTTTTTTTTG
TTGTTTTCAACTCTCCATTTATCAGCTCAGGAGAAGTCTTTTAGTTTTTTAGATTTTAAAATTTTTATTATT
ATTATTAGAGATAAGGTATTGCTGTGTTACCCAAGCTGGAGTACAGTGGCGCCTTCATAGCTAACTTTAATC
TCAAACCTCTGGGCTCAGGGAATCCTCCACCTCAGCCTTC↑TAAAGTGTGGGGT↓TACATGCATAAGCCA
CAGAGTCCGGCCAGGAGCTTAATCTCGAAGGAAGTTTACTTGAACCTTAGGTGTGGAATATTCGAAAGTAA
CTTCCAACATGGGGTGTGGAGCTAAGTAAGATGAATTTACATAAACCGTCATTTTTCTGCATGTGCTTAGT
GGAGGAGAGTGCATAGAGTTGCTGGTCATTGCTTCCTATCA
```

Filled site:

```
TGTTTTATGACTGTTAGTCCTTTTCATGTGTGCATGTAGTGGCTCCAGCTCAATTATGAGGTTTTTTTTTTG
TTGTTTTCAACTCTCCATTTATCAGCTCAGGAGAAGTCTTTTAGTTTTTTAGATTTTAAAATTTTTATTATT
ATTATTAGAGATAAGGTATTGCTGTGTTACCCAAGCTGGAGTACAGTGGCGCCTTCATAGCTAACTTTAATC
TCAAACCTCTGGGCTCAGGGAATCCTCCACCTCAGCCTTCCTAAAGTGTGGGGTGGCCGGGCGCGGTGGCT
CACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGGAGATCGAGACCATCCT
GGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGC
CTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAG
CCGAGATCCCGCCACTGCACTCC... [NEOcassette] [A tail] TAAAGTGTGGGGTTACATGCATAAG
CCACAGAGTCCGGCCCAGGAGCTTAATCTCGAAGGAAGTTTACTTGAACCTTAGGTGTGGAATATTCGAAAG
TAACTTCCAACATGGGGTGTGGAGCTAAGTAAGATGAATTTACATAAACCGTCATTTTTCTGCATGTGCTT
AGTGGAGGAGAGTGCATAGAGTTGCTGGTCATTGCTTCCTATCA
```

Alu flanking the insertion site.

CLONE 229

[TZ20]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 57,578,561

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
ACTGAATTCACCCTATCTTATGCTCTAATGGGCATAAACCTCTAGGTTCCCTATTCCCAAATAGAATCATGAA
AAAGCAACTTATAAGAGTTGAATAAATACCCTAGACAGTGAGACAAACTAGGATATTATGGCTTCTATTTGT
GTTCCAGAACAGGAGATTACAAAGGATCCAAATATTGACACTATCAGAAGAAAATACAGTTTCAGAGAATAG
TAAAAATTCCTCAAAGGGCTACGGTAGATTTGGGCAAAAAGTCAAAAAGGCCATCATC↑↓CTTCATCATCAC
CTGCACCTAAAGTATGTTATGACATAGAGGGATACCTGAGCTGTGTCTGGCAACAAATGAATTGTAGACACAT
CATCCTTTTGGAGGAGTAAACCAAATCTTTTTTTTTTTTTTTTTTTTTTTTTTTGAGACAGGGTTTAGCTATGTTGCC
CAGGCTGGAGTGCAGCAGTGTGATGTCTGGCTCACTGCAACCTCT
```

Filled site:

```
ACTGAATTCACCCTATCTTATGCTCTAATGGGCATAAACCTCTAGGTTCCCTATTCCCAAATAGAATCATGAA
AAAGCAACTTATAAGAGTTGAATAAATACCCTAGACAGTGAGACAAACTAGGATATTATGGCTTCTATTTGT
GTTCCAGAACAGGAGATTACAAAGGATCCAAATATTGACACTATCAGAAGAAAATACAGTTTCAGAGAATAG
TAAAAATTCCTCAAAGGGCTACGGTAGATTTGGGCAAAAAGTCAAAAAGGCCATCATCGGCCGGGCGGGTG
GCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCAT
CCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGG
CGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGT
GAGCCGAGATCCCGCC...[NEOcassette][Atail and 3' unsequenced]
```

Alu at the 3'.

CLONE 230

[LZ31]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 74,484,409

Strand: minus

DR: AAAGAGGTATTAGAGA

ENDOsites: CTTT/AA

Empty site:

```
AATTTTCATCTATCCTGCAGGCATTTTACAACCCTTCTGACCTCATCAGAAAAGTAAACATGTAAGAATATTG
TTGTGCCTGGGATTTCAGTAGGTGAAACATCCAGGCAAGCTCAAAAAGAAAAGTGGCCTGGTGGTACATTTGC
ACAAATGACCATCTTTCTCCCTCCTTTTCATTTCGTATTTAGCTTATACAATTATCATCTTATTTTATATTATC
CTAAATGCTATAATCAAGTCATCTAAGCTGATAAACACATATAAGAGGCTTT↑AAAGAGGTATTAGAGA↓AA
GAAATGCAACAGAACAGTAAATCTCAGTCCATGAATTGATCAGATTGGTGTAAAGATTGACTAGTTGAGAA
ATTCTGAATTGAGGCTACAATAAAGTCATTTATCGCACAAATATTTATGAACCTACTATATGCCAGATATTG
CAGCACCATGGAAATCCAGGCCAATCCTACCCAGGTCTCAGCAAATCGTAATC
```

Filled site:

```
AATTTTCATCTATCCTGCAGGCATTTTACAACCCTTCTGACCTCATCAGAAAAGTAAACATGTAAGAATATTG
TTGTGCCTGGGATTTCAGTAGGTGAAACATCCAGGCAAGCTCAAAAAGAAAAGTGGCCTGGTGGTACATTTGC
ACAAATGACCATCTTTCTCCCTCCTTTTCATTTCGTATTTAGCTTATACAATTATCATCTTATTTTATATTATC
CTAAATGCTATAATCAAGTCATCTAAGCTGATAAACACATATAAGAGGCTTTAAAGAGGTATTAGAGAGGCC
GGGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTGAGGAGA
TCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCG
TGGTAGCGGGCGCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGG
AGCTTGAGTGGCCGAGATCCCGCC... [NEOcassette] [A tail] AAAGAGGTATTAGAGAAAGAAAT
GCAACAGAACAGTAAATCTCAGTCCATGAATTGATCAGATTGGTGTAAAGATTGACTAGTTGAGAAATTCT
GAATTGAGGCTACAATAAAGTCATTTATCGCACAAATATTTATGAACCTACTATATGCCAGATATTGCAGCA
CCATGGAAATCCAGGCCAATCCTACCCAGGTCTCAGCAAATCGTAATC
```

TcMar-Tigger DNA element at the 5'; L2 at the 3'.

CLONE 231

[LZ77]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 11

5' position: 101,262,810

Strand: minus

DR: AAAACAATAAACT

ENDOsites: TTTT/AC

Empty site:

TATAAAACATAAAAAATTATGCTGACAGAGAGGACATGCACCTTGCAGGAGGACCCTCAAAGGGCTGCTGGCA
GAAGATAAATCCTTATGCTATGAGATAACTTCTTTCATTTAAAAAAATTGCTTGAGTTCAACCAAACCAAT
AAGAGACAGT ↑ **AAAACAATAAACT** ↓ ACCATCTGGATTTAAAATTACTCTTAAACTCTCCCTTTGTTGCTCCT
AGCTCTGGACCAGAAGTTTTCCCTTTCCCTAGCCAGCAGCACAGGGTGTAAATTAAGCCTATGAACTCGTACC
TCCAAGCTACCAAGACACAAGAAAGGACCAAGGAAGGGCCACAGCCCAGAAATGCAGGGCAGATGGGGCCTC
CAAGGGAAG

Filled site:

TATAAAACATAAAAAATTATGCTGACAGAGAGGACATGCACCTTGCAGGAGGACCCTCAAAGGGCTGCTGGCA
GAAGATAAATCCTTATGCTATGAGATAACTTCTTTCATTTAAAAAAATTGCTTGAGTTCAACCAAACCAAT
AAGAGACAGTAAAACAATAAACT**GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCG
AGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAA
AAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAG
GGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCA... [NEOcas
sette] [Atail] AAAACAATAAACT** ACCATCTGGATTTAAAATTACTCTTAAACTCTCCCTTTGTTGCTC
CTAGCTCTGGACCAGAAGTTTTCCCTTTCCCTAGCCAGCAGCACAGGGTGTAAATTAAGCCTATGAACTCGTA
CCTCCAAGCTACCAAGACACAAGAAAGGACCAAGGAAGGGCCACAGCCCAGAAATGCAGGGCAGATGGGGCC
TCCAAGGGAAG

No repetitive sequences in the immediate proximity.

CLONE 232

[GG49]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 6,582,235

Strand: plus

DR: AAAAGAAAAAAGAATGG

ENDOsites: TTTT/CT

Empty site:

```
CCCAGCAATGTGGGAGGCCAAGGAGGGCGGATCACTTGAAGCCAGGAGTTCAAGACCAACCTGGCTAACGCA
GCAAAATCCCGTCTCTACTAAAAATACAAAAATTAGCTGGGCATGGACGCCTGTAGTCCCAGCTACTCGGGA
GACTGAGGCAGGAGGATCACTTGAACCCGGGAGGCGGAGGCTGCAGTAAGCCGAGATCTTGCCACTGCACTC
CAACCTGGGCAACAGAATGAGACTGTCTCAAAAAAAAAAAAAAAAAAGAAAGAAAGAAAGAAAAAGAAAAAGAAA
AAAAAG↑AAAAGAAAAAAGAATGG↓GAGGAAATATTTCTGGCAGCATGAATGCCTATTTATTCCCACCAAC
TTTCCCCTGAAAAAAAAACTTAAAATCATTGAATGGTGACTCACGCCTATAATCCCAGCATTTTGGGAGGCCA
AAGCAGGAGGATCACTTGAGCCAGGAGTTCAAGACTAGCCTGGACAACATGGTGAAATCCTGTCTCTACAA
GAAATAGATA
```

Filled site:

```
CCCAGCAATGTGGGAGGCCAAGGAGGGCGGATCACTTGAAGCCAGGAGTTCAAGACCAACCTGGCTAACGCA
GCAAAATCCCGTCTCTACTAAAAATACAAAAATTAGCTGGGCATGGACGCCTGTAGTCCCAGCTACTCGGGA
GACTGAGGCAGGAGGATCACTTGAACCCGGGAGGCGGAGGCTGCAGTAAGCCGAGATCTTGCCACTGCACTC
CAACCTGGGCAACAGAATGAGACTGTCTCAAAAAAAAAAAAAAAAAAGAAAGAAAGAAAGAAAAAGAAAAAGAAA
AAAAAGAAAAGAAAAAAGAATGGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCC
GAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAA
AAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCA
GGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACT... [NEOcasse
tte] [Atail]AAAAGAAAAAAGAATGGGAGGAAATATTTCTGGCAGCATGAATGCCTATTTATTCCCACC
AACTTTCCCCTGAAAAAAAAACTTAAAATCATTGAATGGTGACTCACGCCTATAATCCCAGCATTTTGGGAGG
CCAAAGCAGGAGGATCACTTGAGCCAGGAGTTCAAGACTAGCCTGGACAACATGGTGAAATCCTGTCTCTA
CAAGAAATAGATA
```

Alu at the 5' and 3'.

CLONE 233

[LZ42]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 29,807,168

Strand: plus

DR: AAGAAAAATGTT

ENDOsites: TCTT/AA

Empty site:

```
TCTTAGAAACAACAAAAATAAATTGGACTTCATCAAAATAAAAACTTACATGCTTCAAAGGACATCATCAA
GTAAGTGAAATGACAATATACAGAAAGAAAGAAAATGTGTTTATAAATCATAAGTCAGATAAGGGACTTGTA
TCTAGAATATATT↑AAGAAAAATGTT↓ACAACCTGGAAATAAAAAAGACAAACAACCCAATTA AAAAGTGAAC
AAAGGATCTCCATCAACGTAGTTCCAAAGAAGACAGCAAAAAGAGTCAGTACATACATAAGGAGATGTTCAAC
ATCATTAGCCACCAGGGAAATATAGGTACATCAAAACCACAATAACATACCATTCCCTACCCATTGGTATGG
CTATAATAAAA
```

Filled site:

```
TCTTAGAAACAACAAAAATAAATTGGACTTCATCAAAATAAAAACTTACATGCTTCAAAGGACATCATCAA
GTAAGTGAAATGACAATATACAGAAAGAAAGAAAATGTGTTTATAAATCATAAGTCAGATAAGGGACTTGTA
TCTAGAATATATTAAGAAAAATGTTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGC
CGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTA
AAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGC
AGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCACTGAGCCGAGATCCCGCCACTGCACTCC... [NEOca
ssette] [Atail]AAGAAAAATGTTACAACCTGGAAATAAAAAAGACAAACAACCCAATTA AAAAGTGAAC
AAAGGATCTCCATCAACGTAGTTCCAAAGAAGACAGCAAAAAGAGTCAGTACATACATAAGGAGATGTTCAAC
ATCATTAGCCACCAGGGAAATATAGGTACATCAAAACCACAATAACATACCATTCCCTACCCATTGGTATGG
CTATAATAAAA
```

LINE-1 flanking the insertion site.

CLONE 234

[LZ54]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 104,616,769

Strand: plus

DR: AAGAAAATTA

ENDOsites: TCTT/AA

Empty site:

```
ACTCAGGAAGCTGAGGCAGGAGAATCACTTGAACCTGAGAGGCGGAGGTTGCAGTGAGCCGAGATTGCACTG
CTGCACTCCAGCCTGGGTGAAATAGTGAGACTCTGTCTCAAAAAACAAACAAACAAACAAACTAACTTTTG
GGATTATTGAGCAGAAATGTACGAGTTAACATGAAACTTCAGTGTCTAGGCTGTAATAAAATAGTAAACAGC
AAAGTCAAGTACAGATACACTCTCTT↑AAGAAAATTA↓AATGATCCTTGGGTGGGCTTGTTAAACATGGTCC
AGTATGACATTGAAAGGACATTTAGTCAACTTCTTTCTTTACTTCCAAGTTTGGACATTTTTCTTAAGATTG
TGGATATTACAGTGTAGCTATGGCTGCCTTGAGATTATTGCTCACTTATATAGTGGCATTTTAAGCTGCTTA
ATCCCCTCAAATGTGCTGCCAA
```

Filled site:

```
ACTCAGGAAGCTGAGGCAGGAGAATCACTTGAACCTGAGAGGCGGAGGTTGCAGTGAGCCGAGATTGCACTG
CTGCACTCCAGCCTGGGTGAAATAGTGAGACTCTGTCTCAAAAAACAAACAAACAAACAAACTAACTTTTG
GGATTATTGAGCAGAAATGTACGAGTTAACATGAAACTTCAGTGTCTAGGCTGTAATAAAATAGTAAACAGC
AAAGTCAAGTACAGATACACTCTCTTAAGAAAATTAGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCA
CCTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCC
CGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC
ACTCA... [NEOcassette] [Atail] AAGAAAATTAAATGATCCTTGGGTGGGCTTGTTAAACATGGTC
CAGTATGACATTGAAAGGACATTTAGTCAACTTCTTTCTTTACTTCCAAGTTTGGACATTTTTCTTAAGATT
GTGGATATTACAGTGTAGCTATGGCTGCCTTGAGATTATTGCTCACTTATATAGTGGCATTTTAAGCTGCTT
AATCCCCTCAAATGTGCTGCCAA
```

Alu at the 5'; LTR flanking the insertion site.

CLONE 235

[GG30]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 107,312,921

Strand: plus

DR: AGACATTTAAAAAGTC

ENDOsites: GTCT/AA

Empty site:

TGAATGACTAGAGTCTAAAAACAGCATGTGCTGCTACTGCCATCTAGCAGTCCAACCTAGGGCTGCATGGATT
TAGCTTTTCCTCAGGTATTTTTGAAAGACATCAGGGGGCTATTATTCAAACACAAAACTTCATTGAATATGC
AAACATCCTACAGCCCCTAAGTGCTTTCTGAGTGGGAGAGAGTATACATATATAAAACAAATCTT **↑AGACATT**
TAAAAAGTC ↓ TGTCTGAGCCTGTAATGTTTGACTATTGTAATATTTGACTACTGCAGTCAAACATTATACC
ATCATTGCAATTCAGTGGTCTCAAGGGCCTTTGGTGATGTGCCAGACTGCCAGTACAGCAGATATTTGTT
GGGTACCCACTATGCATGCAGAGGACTGTGCAGGTGTGTGTGGTAGAAAGAGACAGGAATTTGG

Filled site:

TGAATGACTAGAGTCTAAAAACAGCATGTGCTGCTACTGCCATCTAGCAGTCCAACCTAGGGCTGCATGGATT
TAGCTTTTCCTCAGGTATTTTTGAAAGACATCAGGGGGCTATTATTCAAACACAAAACTTCATTGAATATGC
AAACATCCTACAGCCCCTAAGTGCTTTCTGAGTGGGAGAGAGTATACATATATAAAACAAATCTT TAGACATTT
AAAAAGTC **GGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAC**
GAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTCAAACCCGCTCTACTAAAAAATA
CAAAAATTAGCCGGGCGGTAGCGGGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGG
CGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [A tail] AGACA
TTTAAAAAGTCT GTTCTGAGCCTGTAATGTTTGACTATTGTAATATTTGACTACTGCAGTCAAACATTATAC
CATCATTGCAATTCAGTGGTCTCAAGGGCCTTTGGTGATGTGCCAGACTGCCAGTACAGCAGATATTTGT
TGGGTACCCACTATGCATGCAGAGGACTGTGCAGGTGTGTGTGGTAGAAAGAGACAGGAATTTGG

No repetitive sequences in the immediate proximity.

CLONE 236

[LZ7]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 112,411,757

Strand: plus

DR: AAAAAATCCTACAGT

ENDOsites: TTTT/GT

Empty site:

```
CAGGAAATAATGAAGATCAAAGCGGAAATCAAGGCCAGAAGTGGTGGCTCCACCTGTAATCCCAGCACTTT
GGGAGGCCGAGGCTGGAGATCACTTGAGTCCAGGAGTTTGAGACCAGCCTGGCCAACATATAAAATTAGCCA
GGTGTGGTGGCACACACCTGCAATCCCAGCTACTTGGGTGGCTGAGGCAGGAGAATCACTTGAACCCAGGAG
GTGGAGGTTGCAGATCGTGGCCTGCACTCCAAGCTGGGCAACAAAAGCGAGACTTTGTCAAAAAACCCAAA
AAAACAAAAAAAC↑AAAAAATCCTACAGT↓ATATAAAAATAATACATCACAACCTAAGTGGGGTTTATCTCAG
GCCTACAGAGTTGTTTCAACATTCAAAAAGTAAATCAATTTAAATCATCCTATTAAAATACTAAAAAAATAAA
AACCAGTGATCATCTAAATAGGTACAGAAAATAGCATTGGAAAAATATAACATCCATTCTCAATTTTAAAA
ACAGAGAAAAAAA
```

Filled site:

```
CAGGAAATAATGAAGATCAAAGCGGAAATCAAGGCCAGAAGTGGTGGCTCCACCTGTAATCCCAGCACTTT
GGGAGGCCGAGGCTGGAGATCACTTGAGTCCAGGAGTTTGAGACCAGCCTGGCCAACATATAAAATTAGCCA
GGTGTGGTGGCACACACCTGCAATCCCAGCTACTTGGGTGGCTGAGGCAGGAGAATCACTTGAACCCAGGAG
GTGGAGGTTGCAGATCGTGGCCTGCACTCCAAGCTGGGCAACAAAAGCGAGACTTTGTCAAAAAACCCAAA
AAAACAAAAAAACAAAAAATCCTACAGTGGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA
GGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTA
CTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGA
GGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCA... [NE
Ocassette] [Atail] AAAAAATCCTACAGTATATAAAAATAATACATCACAACCTAAGTGGGGTTTATCT
CAGGCCTACAGAGTTGTTTCAACATTCAAAAAGTAAATCAATTTAAATCATCCTATTAAAATACTAAAAAAT
AAAAACCAGTGATCATCTAAATAGGTACAGAAAATAGCATTGGAAAAATATAACATCCATTCTCAATTTTA
AAAACAGAGAAAAAAA
```

Alu at the 5'; LINE-1 at the 3'.

CLONE 237

[GG18,GG19]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 12

5' position: 112,787,674

Strand: plus

DR: AGAAAAGAAATAAAACA

ENDOsites: TTCT/AG

Empty site:

```
AACATCTAGTTTTGCTTCCCTCTTGTTATATGAATCTCAATCTCATGCTGAGAACAGATGGCAAAAAAAAAA
ATTGGCACAGAATGCAACTACGGCAGTACAAATATGGTGGTCAGCAGGAAATACATTATTCTTAATTTCAAC
CTTTTCCTGGAAACAGTGCCTGGAGTGTTATGGAGTAAAAATGGGTGAACAGGTGTAGGAGGATTTTATTTT
TGGCAAGGGCTGAAAGCAAAGGAGAAAAATTAGTTTGATTTAAGGAGCCTACTTAATTCT ↑AGAAAAGAAAT
AAAACA↓GACTGGGAACACATTGAATAATTTTATATTTCTGTAAATGTTTCATATTTTTTGGAAAGGCTATCA
ATAATATGATATTTTTCTTTTTCTTTTTCTTTTTTTTTGAGACAGGGCCTCATTCTGTTGCCAGGTTGGAGT
GCAGTGGCACAAACACAGCTCACTGCAGCCCCAACTCCTGGACTCAAGTGATTTTCCTGCCT
```

Filled site:

```
AACATCTAGTTTTGCTTCCCTCTTGTTATATGAATCTCAATCTCATGCTGAGAACAGATGGCAAAAAAAAAA
ATTGGCACAGAATGCAACTACGGCAGTACAAATATGGTGGTCAGCAGGAAATACATTATTCTTAATTTCAAC
CTTTTCCTGGAAACAGTGCCTGGAGTGTTATGGAGTAAAAATGGGTGAACAGGTGTAGGAGGATTTTATTTT
TGGCAAGGGCTGAAAGCAAAGGAGAAAAATTAGTTTGATTTAAGGAGCCTACTTAATTCTAGAAAAGAAATA
AAACAGGCCGGGCGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAG
GTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTA
GCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCG
GGAGGCGGAGCTTGCACTGAGCCGAGATCCCGCCACTGCA... [NEOcassette] [Atail]AGAAAAGAA
ATAAAACAGACTGGGAACACATTGAATAATTTTATATTTCTGTAAATGTTTCATATTTTTTGGAAAGGCTATC
AATAATATGATATTTTTCTTTTTCTTTTTCTTTTTTTTTGAGACAGGGCCTCATTCTGTTGCCAGGTTGGAG
TGCAGTGGCACAAACACAGCTCACTGCAGCCCCAACTCCTGGACTCAAGTGATTTTCCTGCCT
```

Alu at the 3'.

CLONE 238

[LZ2]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 13

5' position: 77,685,020

Strand: minus

DR: AAGAAGTTATCCAGCTC

ENDOsites: TCTT/AG

Empty site:

```
ACAAGTTGAAAATAGAAAATTACTCATATATCACATTTTATTAATAAATATTATTAAAGCATTTCATGATT
TTGCACTCAATTTAGGAAGGATTAGGTCTGCTATATCTCCCACTTTGTTATTCTCTCAAACCTTCTGTACCTG
TAGTATATGTCATTACTTAAGCTGAACAAAACGCTCATTTTTTGTAATCAGACTTCTCATCCTTATCATCAG
ATTGTCTTTCCCTCCTTTGGTTTTATTTAAGAAGTGTGCATCAGCAGCAGCCGTTATGTCTTATGATGGCATAA
TTTCAAGTGTTCTAGGGGCCT↑AAGAAGTTATCCAGCTC↓TCATTTTGAGATGAGAGAATTCTTGCTGACTT
GCCCCAAGTCATAGCTGGCAAATCTAGGACTTGAACATGAGAGTCTGTATTGGGGGAACCCGCCCAATAT
TTCAACGTAGGTTCTTTCTATTTTCCCTAAGCATTGGCCAGTCTGAGAAAAAAGAGAAAGAGTACAAAGAG
GAATTTTACAGCTGGGCCTCTGGC
```

Filled site:

```
ACAAGTTGAAAATAGAAAATTACTCATATATCACATTTTATTAATAAATATTATTAAAGCATTTCATGATT
TTGCACTCAATTTAGGAAGGATTAGGTCTGCTATATCTCCCACTTTGTTATTCTCTCAAACCTTCTGTACCTG
TAGTATATGTCATTACTTAAGCTGAACAAAACGCTCATTTTTTGTAATCAGACTTCTCATCCTTATCATCAG
ATTGTCTTTCCCTCCTTTGGTTTTATTTAAGAAGTGTGCATCAGCAGCAGCCGTTATGTCTTATGATGGCATAA
TTTCAAGTGTTCTAGGGGCCTAAGAAGTTATCCAGCTCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAG
CACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAC
CCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC
ACTCCAGC... [NEOcassette] [Atail]AAGAAGTTATCCAGCTCTCATTTTGAGATGAGAGAATTCTT
GCTGACTTGCCCCAAGTCATAGCTGGCAAATCTAGGACTTGAACATGAGAGTCTGTATTGGGGGAACCCGCC
CCCAATATTTCAACGTAGGTTCTTTCTATTTTCCCTAAGCATTGGCCAGTCTGAGAAAAAAGAGAAAGAGT
ACAAAGAGGAATTTTACAGCTGGGCCTCTGGC
```

MIR and LTR at the 3'.

CLONE 239

[LZ55]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 13

5' position: 79,200,920

Strand: plus

DR: N/A

ENDOSite: N/A

Empty site:

```
GGTAGAAGAAGAGTAATCAAAAAGTACAAGAGGAAAATGCTACCTCTGTCTAGGAAAATTAGGGAGGGCCTCA
CATATAAACCAACAACCTGGGCTAGATCTCAAAGGACAGACAGGGATTACCAGGAAGAATAAAAAACAAGAGA
AGCTAATGTGGAGAACCAGGGAAAATACAGTATGATGAATGTGGGCCCAATGAGAAAATTCAGCATAGCCAGA
GCAGAGCACAAGAAGCGAGGGGCTAGAGAAGAGGCAAGGATATTAAGTGAAGTTATATAGTAAAGACCCTT
TTATACTAGACCAAGAATATTGG↑↓GGCCAGGCGTGGTGGCTCACACCTGTAATCCCAGACTTTGGGAGGCC
AAGGCAGGCGGATCATGAGGTCAGGAGATCGAGACCATCCTGGCTAACACAGTGAAACCCCATCTCTACTAA
AAATACAAAAAATTAGCCGGGCATGGTGGCGGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAG
AATAGCATGGAACCCAGGGGGCGGAGCTTGCAGTGAAGTGAAGTGGTGCCACTGCACTCCAGCCTGGGCGAC
AGCACAGGAAAGAAAGGTAAGCAGTAGAAAGGCTGTTA
```

Filled site:

```
GGTAGAAGAAGAGTAATCAAAAAGTACAAGAGGAAAATGCTACCTCTGTCTAGGAAAATTAGGGAGGGCCTCA
CATATAAACCAACAACCTGGGCTAGATCTCAAAGGACAGACAGGGATTACCAGGAAGAATAAAAAACAAGAGA
AGCTAATGTGGAGAACCAGGGAAAATACAGTATGATGAATGTGGGCCCAATGAGAAAATTCAGCATAGCCAGA
GCAGAGCACAAGAAGCGAGGGGCTAGAGAAGAGGCAAGGATATTAAGTGAAGTTATATAGTAAAGACCCTT
TTATACTAGACCAAGAATATTGGGGCCAGGCGTGGTGGCTCACACCTGTAATCCCAGACTTTGGGAGGCCAA
GGCAGGCGGATCATGAGGTCAGGAGATCGAGACCATCCTGGCTAACACAGTGAAACCCCATCTCTACTAAA
ATACAAAAAATTAGCCGGGCATGGTGGCGGGCGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAA
TAGCATGAACCCAGGGGGCGGAGCTTGCAGTGAAGTGAAGTGGTGCCACTGCACTCCAGCCTGGGCGACAGC
...[NEOcassette][A tail and 3' unsequenced]
```

Alu at the 3'.

Alu inserted by recombination into an existing Alu (highlighted in gray).

CLONE 240

[LZ65,LZ74]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 13

5' position: 92,850,663

Strand: minus

DR: AAGAAAGAAGTATTATTAATT

ENDOsites: TCTT/AA

Empty site:

```
TATAATTTACTTGCAAAGATTGTACGAATGCCCACTCTGAATCAGAAGTGAAAATGTATCAGGTCAATAAGT
AATCTTCCCATTGGCTTCAAAGGCTAGACAGCTGGTGATTTTCTTCTTGACATCAGTCTTGACGGGAGCAATG
TGTCTACATCCTGACTTTACTCACTGCCAGTCTGCCTACATTTAATCCACATCAGTCCACATTAATCCACAT
TCATGATGGAAGCAAGAATAATATTTGAGCTAATTTGGTCATTCAAATATCTGAACTATAAGTCATCAATTT
GGACTTTAGAATGCTGTGGGGAAATCATCATTCAATT AAGAAAGAAGTATTATTAATT AATAAGGAGCATA
TCTATGATCTGTCAATGAGGTATCAACCAACCTATCAACAGAAGAAAATTTTTATTGGACATCTCTTAGTAAC
AGGCTCCATCCTAGGTTAAAGGATATAGAGGAATGTAGCACCAGTAAGGATGCTGTTCTCATGAAGGTAGCA
TTTTAGTGTGGAGAGACATATCATATACAAATAGGTAATATAT
```

Filled site:

```
TATAATTTACTTGCAAAGATTGTACGAATGCCCACTCTGAATCAGAAGTGAAAATGTATCAGGTCAATAAGT
AATCTTCCCATTGGCTTCAAAGGCTAGACAGCTGGTGATTTTCTTCTTGACATCAGTCTTGACGGGAGCAATG
TGTCTACATCCTGACTTTACTCACTGCCAGTCTGCCTACATTTAATCCACATCAGTCCACATTAATCCACAT
TCATGATGGAAGCAAGAATAATATTTGAGCTAATTTGGTCATTCAAATATCTGAACTATAAGTCATCAATTT
GGACTTTAGAATGCTGTGGGGAAATCATCATTCAATTAAGAAAGAAGTATTATTAATT GGCCGGGCGGGTGG
CTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATC
CTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGC
GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTG
AGCCGAGATCCCGCCACTGCACTCCA... [NEOcassette] [Atail] AAGAAAGAAGTATTATTAATTA
TAAGGAGCATATCTATGATCTGTCAATGAGGTATCAACCAACCTATCAACAGAAGAAAATTTTTATTGGACAT
CTCTTAGTAACAGGCTCCATCCTAGGTTAAAGGATATAGAGGAATGTAGCACCAGTAAGGATGCTGTTCTCA
TGAAGGTAGCATTTTAGTGTGGAGAGACATATCATATACAAATAGGTAATATAT
```

L2 at the 3'.

CLONE 241

[LZ80]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 56,285,222

Strand: minus

DR: AATAGTTACCTAATT

ENDOsites: TATT/AA

Empty site:

```
TCTGAGCATAAGCTCCCATAAAGCCTTGTTTAGGAAAACCTCTTTTGGCCTCATGTCAATCTCTATTACATTG
AGAGCCCAAGAACCCATGGTTGGTAACAACAATGTAAAGAAAAACTAATACATTTGACTTGAGACAGTCTTT
AGTTTGTGGCATAGAATGCCATTTCTTCTCTAAATCTTCATTCTGCTAGTTGGTTTTACTAGGATT↑AAT
AGTTACCTAATT↓ATATTATAAATGGTATTTATTGCATTTCAACTTTTTTTTTTTTTTTTTTTGAGACAGGGTCT
CACTCCATTGCCAGGGTGAAGGGCAGTGGCATGATCATAGCTTACTGCAGACTCGAACTCCACACTCAAG
CAATCCCCTCACCTCAGCCTCTCAAGTAGGTGGGACCACACGCATGTGCTACCACACCCAGATAATTTTTTGT
AGTTTTTGTAGAGACAGGATCTCACTGTGTTGCCAGGCTGGTCTCAA
```

Filled site:

```
TCTGAGCATAAGCTCCCATAAAGCCTTGTTTAGGAAAACCTCTTTTGGCCTCATGTCAATCTCTATTACATTG
AGAGCCCAAGAACCCATGGTTGGTAACAACAATGTAAAGAAAAACTAATACATTTGACTTGAGACAGTCTTT
AGTTTGTGGCATAGAATGCCATTTCTTCTCTAAATCTTCATTCTGCTAGTTGGTTTTACTAGGATTAATA
GTTACCTAATTGGCCGGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGAT
CACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAA
AAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTG
AACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCC...[NEOcassette] [Atail]AATAGTTAC
CTAATTATATTATAAATGGTATTTATTGCATTTCAACTTTTTTTTTTTTTTTTTTTGAGACAGGGTCTCACTCCA
TTGCCAGGGTGAAGGGCAGTGGCATGATCATAGCTTACTGCAGACTCGAACTCCACACTCAAGCAATCCC
CTCACCTCAGCCTCTCAAGTAGGTGGGACCACACGCATGTGCTACCACACCCAGATAATTTTTTGTAGTTTTT
GTAGAGACAGGATCTCACTGTGTTGCCAGGCTGGTCTCAA
```

LTR at the 5'; Alu at the 3'; LINE-1 flanking the insertion site.

CLONE 242

[LZ33]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 65,094,075

Strand: plus

DR: GAGAATTAATGAGCTA

ENDOsites: TCTC/AC

Empty site:

```
TAAGGGGAAAAAAGCATTGCAGGAGTTGGGCAGAATCAGAGAGGTTGTTTAGAGAAGTGGATAAAAGCATG
GGTCCTGGCCTCAGGCAGATGAAGTTTTAAATATTTATCTAAGCCTAAATTTTCTTATCTGTAATGAAGGAT
AATCATCATTTCTGTTTATTGTAAAGGTTGTTGT↑GAGAATTAATGAGCTA↓ATGCATGAGGCTCACTTTG
CACACGGCATGGCTTGCACTAAACACAGTAAACACAAAGGGTCCTGATATGGTTTGGCTCTGTTTCTCCACC
CAAATCTCATCTTGAATTGTAATCCTCACATGTTCGAGGGAGGGACCTGTAATCCCCATGTGTCAAGGGAGGA
TGATGATTGGATCTTGGGGGTGGTTCCCCCATGCTGT
```

Filled site:

```
TAAGGGGAAAAAAGCATTGCAGGAGTTGGGCAGAATCAGAGAGGTTGTTTAGAGAAGTGGATAAAAGCATG
GGTCCTGGCCTCAGGCAGATGAAGTTTTAAATATTTATCTAAGCCTAAATTTTCTTATCTGTAATGAAGGAT
AATCATCATTTCTGTTTATTGTAAAGGTTGTTGTGAGAATTAATGAGCTAGGCCGGGCGCGGTGGCTCAGC
CCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCT
AACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTA
GTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAAGCGAG
ATCCCGCCACTGCACTCC...[NEOcassette][A tail]GAGAATTAATGAGCTAATGCATGAGGCTCA
CTTTGCACACGGCATGGCTTGCACTAAACACAGTAAACACAAAGGGTCCTGATATGGTTTGGCTCTGTTTCT
CCACCCAAATCTCATCTTGAATTGTAATCCTCACATGTTCGAGGGAGGGACCTGTAATCCCCATGTGTCAAGG
GAGGATGATGATTGGATCTTGGGGGTGGTTCCCCCATGCTGT
```

MIR at the 5'; LTR at the 3'.

CLONE 243

[LZ4]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 91,245,526

Strand: plus

DR: N/A

ENDOfsite: N/A

Empty site:

```
GACAGGCTGGACCACCTGTAGCCCCCTCATCTCAGCCAGAAAGTGCTGGCAGCACTCAATGGCCAGCTCATG
ACTGTGCTGGAGGGACGCGCCACCCAGGGCCCTGGTCTCTGCCAGCCACAGTCAGTCACGGAACGTGGTTTG
AACAGCAGATGGCCAGAAGGACAGGAGCCACTCCAGATAGTCCACTTCTTGCCATGGCCTTAAGAAGTCCCA
TTCA↑↓AAGTGTCCCTCTTCCTCTAGGAAGCCTTCCTGGCCCTGCTGGCCTGAAGTGACCTCTCCGTATTAC
CCATCCCTAGCTTTTACTATTTGCTGCCATGTTTGGGGTTGAGATTTTATTTTTTATTTTTTTAATTTTTTT
GAGATGGAGTCTCGCTCTTGTGCGCACAGGCTGGAGTGCAATGGCGCGATCTCAGCTCACTGC
```

Filled site:

```
GACAGGCTGGACCACCTGTAGCCCCCTCATCTCAGCCAGAAAGTGCTGGCAGCACTCAATGGCCAGCTCATG
ACTGTGCTGGAGGGACGCGCCACCCAGGGCCCTGGTCTCTGCCAGCCACAGTCAGTCACGGAACGTGGTTTG
AACAGCAGATGGCCAGAAGGACAGGAGCCACTCCAGATAGTCCACTTCTTGCCATGGCCTTAAGAAGTCCCA
TTCAGGCCGGGGCGGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGGCGGGCGGATCACGAGG
TCAGGAGATCGAGACCATCCTGGCTAACACGGTCAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATT
AGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCC
GGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCCAG... [NEOcassette] [A tail
and 3' unsequenced]
```

Alu at the 3'.

CLONE 244

[LZ1]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 14

5' position: 92,352,545

Strand: plus

DR: TGAAAGCACACA

ENDOsites: TTCA/AA

Empty site:

```
CACGGAGGGAACTGAAATCTAGGAAGAAAGTGGCTTTTTCATGCCTGAGGGTATTTTATTTCTGTTTCTGGGC
CTTGATTTAATCAGCCCAAGGCTCTCTGGAACCTCCTGCTTGTGGCTCTGACTGTCCTGGCCCTAGGGAGA
GGTGTTTCATCTGTTTTCATGGGACGCTGTCCCAGAACACTTCAGTTGTGAGTGTGAGACTATCACACAAGTTCC
ATTCATGACCTGGGTTCAGTTCTGTTACAATAAAAACCCGGATTAGGAACTTTCCATTCTGCAGGACAGAAA
GATTTTTTCAGCCCTAGTGTATGGCCCACTTATTTT↑TGAAAGCACACA↓GTGAAGCATTATTAATTTAGACTTT
GCAAATTCACAACCTGCTGATGATGCCAGAAGTGGCTGAAATGGAGTGTACTTTAATCTAACCTTTACAAAAA
ACAAGGCAAGAAAGGAAAAGAGAGAGAAAAGAAAAGGAGTTGTGTGTGGCCCTATGTGGGATGCTACAG
AGATAAATGTGAGTAAGAGGTGGTCCCTATT
```

Filled site:

```
CACGGAGGGAACTGAAATCTAGGAAGAAAGTGGCTTTTTCATGCCTGAGGGTATTTTATTTCTGTTTCTGGGC
CTTGATTTAATCAGCCCAAGGCTCTCTGGAACCTCCTGCTTGTGGCTCTGACTGTCCTGGCCCTAGGGAGA
GGTGTTTCATCTGTTTTCATGGGACGCTGTCCCAGAACACTTCAGTTGTGAGTGTGAGACTATCACACAAGTTCC
ATTCATGACCTGGGTTCAGTTCTGTTACAATAAAAACCCGGATTAGGAACTTTCCATTCTGCAGGACAGAAA
GATTTTTTCAGCCCTAGTGTATGGCCCACTTATTTTTGAAAGCACACAGGCCGGGCGCGGTGGCTCACGCCTGTA
ATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAG
GTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCA
GCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGTGAGCCGAGATCCCG
CCACTGCA... [NEOcassette] [Atail] TGAAAGCACAGTGAAGCATTATTAATTTAGACTTTGCAAAT
TCACAACCTGCTGATGATGCCAGAAGTGGCTGAAATGGAGTGTACTTTAATCTAACCTTTACAAAAACAAGG
CAAGAAAGGAAAAGAGAGAGAAAAGAAAAGGAGTTGTGTGTGGCCCTATGTGGGATGCTACAGAGATAA
ATGTGAGTAAGAGGTGGTCCCTATT
```

No repetitive sequences in the immediate proximity.

CLONE 245

[GG11,25,41]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 15

5' position: 37,024,052

Strand: minus

DR: AAGAAATAATTGA

ENDOsites: TCTT/AT

Empty site:

```
CAAACCTTCTCAAATTTATTTTTTGGCTATAGAGGGGGCAAAGGAAGTCCTGGGACATTTCTGCCTACTTCATG
TTCTGAAAGATCTCCATGAAGCCCTTCAGCAAGTCTACCTGTACATTAAGGAGTCTAAAACCTGTGATAATC
ATTCATAAAAATTTTGTGTTTTACAATACTACTGTGACGTAACGAAGTTTGTAAAATAGTTTTTATTTAATAG
CATTAAAGATATTTATGCATAAACTAAATGACATCAAATAAGCCAATAAAATGTTTAGAAATCCCAAGTTTATA
AATATCTTCCTTAGAATGTAT † AAGAAATAATTGA ‡ GAATTGTTTTTTAATAATCCTGGGAAAGAAATACAA
TTTGGCATGTCTCTTAACTTTGGCTTTTGGCCCCATTTTTAGGGATCATTTAGCCAGACAGGCAGGTTTTCA
TTAAATTTAATTTGTGTGGAGCTTAAATATTAAGTTGAGTTATTAGGATGGTAAACCAATTGATGGCTCTGT
CTTTTAAACATCTTGTGGTGC
```

Filled site:

```
CAAACCTTCTCAAATTTATTTTTTGGCTATAGAGGGGGCAAAGGAAGTCCTGGGACATTTCTGCCTACTTCATG
TTCTGAAAGATCTCCATGAAGCCCTTCAGCAAGTCTACCTGTACATTAAGGAGTCTAAAACCTGTGATAATC
ATTCATAAAAATTTTGTGTTTTACAATACTACTGTGACGTAACGAAGTTTGTAAAATAGTTTTTATTTAATAG
CATTAAAGATATTTATGCATAAACTAAATGACATCAAATAAGCCAATAAAATGTTTAGAAATCCCAAGTTTATA
AATATCTTCCTTAGAATGTATAAAGAAATAATTGA GGCCGGGCGGGTGGCTCACGCCTGTAATCCCAGCACT
TTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCG
TCTCTACTAAAAAATAACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGG
AGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCAC... [NEOc
assette] [Atail] AAGAAATAATTGAGAATTGTTTTTTAATAATCCTGGGAAAGAAATACAATTTGGCA
TGTCTCTTAACTTTGGCTTTTGGCCCCATTTTTAGGGATCATTTAGCCAGACAGGCAGGTTTTTCATTAATTT
TAATTTGTGTGGAGCTTAAATATTAAGTTGAGTTATTAGGATGGTAAACCAATTGATGGCTCTGTCTTTTAA
CATCTTGTGGTGC
```

No repetitive sequences in the immediate proximity.

CLONE 246

[GG22]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 15

5' position: 48,974,167

Strand: plus

DR: AAAAAATTCTACTTTA

ENDOsites: TTTT/AG

Empty site:

```
GTTCTGTGGGTTCCAGTTAAGTCAGTTTCACAAAGGAGATGGCAAAGGAGAAAGAGGCCCCAGAAATGGGCAA
AGGAACCCCAAGCTGAGGGCAATGTGGATCCTCCATGTCCCACAAACAGAGCAGATGCTGTGTTCTGACCT
GTTTGGAAGTACTGAGCACTGGATGTTAATGAAAAAGTTAAGTTAAAAACAGGCAATGGCATGCATCAGTTCT † AA
AAATTCTACTTTA † ACCAAAAATATATAATGTAAATTTATTTACCATGATTTTAACTGCTTTATATTCTGTT
GTATTTGTTCTTTTTTCCCAAATTTTTTTGCTTTCTCTGGTATTAAGAAACATTTTATGTAATTTTCATTTTA
TCTTCTCTTAAATATCAACTATACTTCTTTTTTAAAAAATTAATCGTTGACCTAGAGTTTGCAATACTC
```

Filled site:

```
GTTCTGTGGGTTCCAGTTAAGTCAGTTTCACAAAGGAGATGGCAAAGGAGAAAGAGGCCCCAGAAATGGGCAA
AGGAACCCCAAGCTGAGGGCAATGTGGATCCTCCATGTCCCACAAACAGAGCAGATGCTGTGTTCTGACCT
GTTTGGAAGTACTGAGCACTGGATGTTAATGAAAAAGTTAAGTTAAAAACAGGCAATGGCATGCATCAGTTCTAAA
AAATTCTACTTTA GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGG
ATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACA
AAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCG
TGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACT... [NEOcassette] [A tail
] AAAAAATTCTACTTTAACCAAAAATATATAATGTAAATTTATTTACCATGATTTTAACTGCTTTATATTCTG
TTGTATTTGTTCTTTTTTCCCAAATTTTTTTGCTTTCTCTGGTATTAAGAAACATTTTATGTAATTTTCATTT
TATCTTCTCTTAAATATCAACTATACTTCTTTTTTAAAAAATTAATCGTTGACCTAGAGTTTGCAATACT
C
```

LINE-1 at the 5'.

CLONE 247

[LZ18]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 15

5' position: 59,724,193

Strand: minus

DR: AAAGAGATAAATAGGT

ENDOsites: CTTT/AA

Empty site:

```
TTACACCTTCACCTCAGGTCTGCACTAGCAAAGGAGTGAAGATTCGTGTACTTACCCAGATAAATCCAATCA
AATAATTGTTAGTTTAAAATACACAGAGCCAAACATGTTTTGGGATTTGAGCATCTTCTTAATTAATTAAC
TGAAACGAGCGCTTTATGAGTACATGCCTGCCAGGTAAAGGCATATAGAGTGATGCAGTGTTTAAAAATTGT
AATTAATAGACAATACATAGCCTGTACTTAAAGTAAAATAAAAATTAAGAAAAAAGAAAAATAACAAAGTAA
GATAAATTAATATTATGCAGCTGTTTTT↑AAAGAGATAAATAGGT↓ATAATCGTCTTTGTTTTCCCTCCCAT
ATTTGAATACACTTAAATCATTTTCATGCACACACACAGGTTTCCCAAGGCAATGTGAAAGGGTTGCAGGAT
TCTCTACCAGGCACTGGAGCCCCACATAGTCACGTAGTAGGTTTTTCATCACTGTAGACTCAGGAAACAGCTT
TTTCTTCCCCTGGGAAACATAAATAATAAA
```

Filled site:

```
TTACACCTTCACCTCAGGTCTGCACTAGCAAAGGAGTGAAGATTCGTGTACTTACCCAGATAAATCCAATCA
AATAATTGTTAGTTTAAAATACACAGAGCCAAACATGTTTTGGGATTTGAGCATCTTCTTAATTAATTAAC
TGAAACGAGCGCTTTATGAGTACATGCCTGCCAGGTAAAGGCATATAGAGTGATGCAGTGTTTAAAAATTGT
AATTAATAGACAATACATAGCCTGTACTTAAAGTAAAATAAAAATTAAGAAAAAAGAAAAATAACAAAGTAA
GATAAATTAATATTATGCAGCTGTTTTTAAAGAGATAAATAGGTGGCCGGGCGCGGTGGCTCACGCCTGTAA
TCCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGG
TGAAACCCCGTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAG
CTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGC
CACTGCACTCC... [NEOcassette] [Atail] AAAGAGATAAATAGGTATAATCGTCTTTGTTTTCCCTC
CCATATTTGAATACACTTAAATCATTTTCATGCACACACACAGGTTTCCCAAGGCAATGTGAAAGGGTTGCA
GGATTCTCTACCAGGCACTGGAGCCCCACATAGTCACGTAGTAGGTTTTTCATCACTGTAGACTCAGGAAACA
GCTTTTTTCTTCCCCTGGGAAACATAAATAATAAA
```

No repetitive sequences in the immediate proximity.

CLONE 248

[LZ28]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 15

5' position: 69,480,707

Strand: minus

DR: AAGAAAATA

ENDOsites: TCTT/AT

Empty site:

```
ATAACCTGAATAACCTTACATATATTAAAGGAATTGAAATTACAGTTAAAAACCACCCACAAAGAAAACCTT
CCAGGTCCAGCTGACTTCACTGGTCAATTCTAACAAACATTTAAGGAAGAAATAATACTAATTCTAAAAGGC
TTATCCAGAAAATTGAAGAAGAGAGAACAACCTTCTCAAGTCATTCTAAAAGGGCACCATGACCCTGTATCAAA
ACCAAATAAGATATTAT↑AAGAAAATA↓TAGACCAATTTTCCTATGAATATAGATGTAAAAATACTTAAT
ATGACATAAATCAAATCCAACAATATGTAAAAAGTACAATACCTCATGACCAAGTTGTGTTTTTTTTGTTTTG
TTTTGTTTTTTGTTTTTTGTTTTTTGAGACGGAGTCTCACTCTGTGCGCCAAGCTGGAGTGCAGTGGCAATCTTG
GCAACCTCCACCTC
```

Filled site:

```
ATAACCTGAATAACCTTACATATATTAAAGGAATTGAAATTACAGTTAAAAACCACCCACAAAGAAAACCTT
CCAGGTCCAGCTGACTTCACTGGTCAATTCTAACAAACATTTAAGGAAGAAATAATACTAATTCTAAAAGGC
TTATCCAGAAAATTGAAGAAGAGAGAACAACCTTCTCAAGTCATTCTAAAAGGGCACCATGACCCTGTATCAAA
ACCAAATAAGATATTATAAGAAAATAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGA
GGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCTGGCTAACACGGTGAACCCCGTCTCTA
CTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGA
GGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette]
[Atail] AAGAAAATATAGACCAATTTTCCTATGAATATAGATGTAAAAATACTTAATATGACATAAATCA
AATCCAACAATATGTAAAAAGTACAATACCTCATGACCAAGTTGTGTTTTTTTTGTTTTTTGTTTTTTGTT
TTTTGTTTTTTGAGACGGAGTCTCACTCTGTGCGCCAAGCTGGAGTGCAGTGGCAATCTTGGCAACCTCCACCT
C
```

LINE-1 flanking the insertion site; Alu at the 3'.

CLONE 249

[LZ83]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 30,514,516

Strand: minus

DR: GAAACTGGGTG

ENDOsites: TTTC/AA

Empty site:

```
GCACAGTTGTCCTAAGAGCTTGGAGTGACAGTCAAGATTTGAACCCAAATCTGTCCAAATCCAAAGTCCAGG
ATCTTTCCACCATGTACACTGCTTTCTTTTCTGGCAAATTTATGTTTAAAATGTCTAAATCTTATAAGAGG
TGAATGGGAGTAGGCAGAGGGGCACTGAGTAGAGGTTTGAATGAAATAGAGGGTGAGTCGATAATTGTT↑G
AACTGGGTG↓ATGAGGACCTGGGGATTCAATAAACTATTTTTTTTTCTAGTTTTGTGTGATTCATATTCTCA
TAATAAAAAGTTTAAAACAGGCTGGGTGCAGTGGCTTACACCTGTAATCCCAGCACTTTGGGATGCCGAGGT
GGGTGGATCACCTGAGGTCAGGAGTTTGGAGACCAGCCTGGCCAACATGGTGAAAACCCATCTCTATC
```

Filled site:

```
GCACAGTTGTCCTAAGAGCTTGGAGTGACAGTCAAGATTTGAACCCAAATCTGTCCAAATCCAAAGTCCAGG
ATCTTTCCACCATGTACACTGCTTTCTTTTCTGGCAAATTTATGTTTAAAATGTCTAAATCTTATAAGAGG
TGAATGGGAGTAGGCAGAGGGGCACTGAGTAGAGGTTTGAATGAAATAGAGGGTGAGTCGATAATTGTTGA
AACTGGGTGGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCA
CGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAA
ATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAA
CCCGGGAGGCCGAGCTTGCAGTGGCCGAGATCCCGCCACTGCAC... [NEOcassette] [A tail] GAAA
CTGGGTGATGAGGACCTGGGGATTCAATAAACTATTTTTTTTTCTAGTTTTGTGTGATTCATATTCTCATAAT
AAAAAGTTTAAAACAGGCTGGGTGCAGTGGCTTACACCTGTAATCCCAGCACTTTGGGATGCCGAGGTGGGT
GGATCACCTGAGGTCAGGAGTTTGGAGACCAGCCTGGCCAACATGGTGAAAACCCATCTCTATC
```

MIR at the 5'; LINE-1 flanking the insertion site; Alu at the 3'.

CLONE 250

[TZ13]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 69,597,400

Strand: plus

DR: N/A

ENDOsites: N/A

Empty site:

```
AGTTCAAGACTAGCCTGGGTAATATAGTAAGACCATGTCTCTACAAAAAATAAAAAATAAAAAATAATAAT
AAAATGAATTAGCCGAGTGTGGTGGCATGTGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGTGAAGGATCA
CTTTGAGCCCCGGGAGGAGTTTCAGTCTGCAGCTGCACTGAGCTATGAAGCTGCCACTACACTCCAGCCTGGG
CAACAGAACAAGACCCTGTCTCAAAAAAATAAACAAACAAAAAACCCGAAAGAATAGAAAAGAAAAAAAAG
AAAAGAAAAGAATATAGGCCAGGTGCCGTGGCTCAT↑GCCTGTAATCCCAGCACTTTGGGAGGCC↓AAGGCG
GGTGGATCACCTGAGGTGAGGAGTTCGACACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAAT
ACAAAAAATTAGCCGGGCATGGTGGTGGGCGCCTGTAACCCAGCTACTCAGGAGGCTGAAGCAGAAGAATC
ACTTGAACCAGGGAGGCAGAGGTTGCAGTGAGCCGAGATTGCACTGCTGCACTCCAGCCTGGACAACAAGAG
TGAAATTCCATCTTAAAAAACAACAAAAAGAGAATATATCTCTGTAA
```

Filled site:

```
AGTTCAAGACTAGCCTGGGTAATATAGTAAGACCATGTCTCTACAAAAAATAAAAAATAAAAAATAATAAT
AAAATGAATTAGCCGAGTGTGGTGGCATGTGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGTGAAGGATCA
CTTTGAGCCCCGGGAGGAGTTTCAGTCTGCAGCTGCACTGAGCTATGAAGCTGCCACTACACTCCAGCCTGGG
CAACAGAACAAGACCCTGTCTCAAAAAAATAAACAAACAAAAAACCCGAAAGAATAGAAAAGAAAAAAAAG
AAAAGAAAAGAATATAGGCCAGGTGCCGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGG
CGGATCACGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAA
AAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGG
AATGGCGTGAAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [Atil
and 3' unsequenced]
```

Inserted by recombination with a pre-existing truncated Alu: missing between 20-48 bp of 5' Alu sequence.

Sequence is shared between the Alu rescue vector and the genomic pre-insertion site.

Alu in the 5' and 3'.

CLONE 251

[LZ4]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 16

5' position: 89,575,313

Strand: plus

DR: TAAAGTGGAATCCA

ENDOfsite: TTTA/AA

Empty site:

```
GAGCCCGGGAGGCCCCCTNCGGCGGGGGAGCCTGTATCTTGTGGGCCCGCGGATCCCCCAGCTGTGGACCTCG
GCGCGGAGCGACTGTTGGGGCCCTGGATCGTGGGCGCTGGGCGGGCCGGGAAGAGGCAGGGCTGGGATCCGC
GCAGTCCTCGGCGTGGACTTTCCCAACCCGTCTGTTGTGTGTGGATGTTCTCCGCCCGTCTTCCTCGCCTTT
↑ TAAAGTGGAATCCA ↓ GTAACGGTTTTCCGGCGTAGCACTAATTTACAGTCCACGCCTGTGGATCGATTCCGT
CACCAGGAATTCCAGCGCCTTCCAGTTAGGGTGGTTATTGCCGAGTAGGGGGCCAGAACGTTTCTGTGTCC
GCAAAAATACCCTGTAGCTGCATTTTGCTGTTGTGCATGTAGCTCGGCACGTTATTGATACAGTCATTGAGCAC
```

Filled site:

```
GAGCCCGGGAGGCCCCCTNCGGCGGGGGAGCCTGTATCTTGTGGGCCCGCGGATCCCCCAGCTGTGGACCTCG
GCGCGGAGCGACTGTTGGGGCCCTGGATCGTGGGCGCTGGGCGGGCCGGGAAGAGGCAGGGCTGGGATCCGC
GCAGTCCTCGGCGTGGACTTTCCCAACCCGTCTGTTGTGTGTGGATGTTCTCCGCCCGTCTTCCTCGCCTTT
TAAAGTGGAATCCA GGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCG
GATCACGAGGTCAGGAGATCGAGACCA TCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACA
AAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCG
TGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOcassette] [A
il] TAAAGTGGAATCCAGTAACGGTTTTCCGGCGTAGCACTAATTTACAGTCCACGCCTGTGGATCGATTCCG
TCACCAGGAATTCCAGCGCCTTCCAGTTAGGGTGGTTATTGCCGAGTAGGGGGCCAGAACGTTTCTGTGTCC
CGCAAAAATACCCTGTAGCTGCATTTTGCTGTTGTGCATGTAGCTCGGCACGTTATTGATACAGTCATTGAGCA
C
```

No repetitive sequences in the immediate proximity.

CLONE 252

[LZ3,50]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 39,958,396

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
CCATCTTCTCCTGCAGCTAAGCCAGGGCAAGGCACTAGAGACCCACATCCTTCCCATGCCACCAACTCGTCA
GGTCCCACCAAGCAAGCCACTCACCCCTACAGCCCAGCAACCATGGCTTGCCTCTCGTGCCACTGCACTCCAG
CCTGGGCGACAGAGTGAGACTCCATCTCAAAAAAAAAAAAAAAAAAACTTAAGATGGACACAGCTGACTGGAC
CCCCATCCTGCCTCACCCATGGGTGCTGCACCCCAGACCCATCCTGCCACTTCTATGTCTCTGGACCACAGG
ATGGTGGTGGCATTGCAGGTTGGCAAGTGGGCTGAT↑↓GGGGTCCGCCCTCCTCACTGCTGAGCTCCTCACC
TGGACAGTCTCCTGGACAAGGAGTTTCCAGCTGCTGGCTGGAGTCTCAGGCCAAATTGCAGAGGGTCTCCA
GGGTCTGAAGAGCACTGGACTAAGAGTCTAGTGGTTCCAGGGCCCTGACCAGTAGGTGCTCAATAAATGTT
TGTTGTTGAATGAGTCATAGTA
```

Filled site:

```
CCATCTTCTCCTGCAGCTAAGCCAGGGCAAGGCACTAGAGACCCACATCCTTCCCATGCCACCAACTCGTCA
GGTCCCACCAAGCAAGCCACTCACCCCTACAGCCCAGCAACCATGGCTTGCCTCTCGTGCCACTGCACTCCAG
CCTGGGCGACAGAGTGAGACTCCATCTCAAAAAAAAAAAAAAAAAAACTTAAGATGGACACAGCTGACTGGAC
CCCCATCCTGCCTCACCCATGGGTGCTGCACCCCAGACCCATCCTGCCACTTCTATGTCTCTGGACCACAGG
ATGGTGGTGGCATTGCAGGTTGGCAAGTGGGCTGATCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAG
GCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAA
AAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGG
GAATGGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCCACTGC... [NEOcassette] [A
tail and 3' unsequenced]
```

Alu insert truncation: missing 15 bp of 5' Alu sequence.

Alu in the 5'; L2 in the 3'.

CLONE 253

[GG31]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 48,175,331

Strand: plus

DR: AAGAAGTAAGTTTTTC

ENDOsites: TCTT/GT

Empty site:

```
GGGGTGGGGACAGACAGGAGACACCAAAGCCCCAAGCGCTTGGAGTTGCCTAGGGTCACGTGGGAATCTGAG
GCCAGAGCAGGACTGAGGTCAAGCTCCTAGTCTCTGTGTCTAGCCCTCTTCTTACCACCCACCTTTCTCTGG
AAACACAGGATCCACCTAGGAAAGCATGGTTTTTACAGCCAAAACCCCAATTTCAGGCTGATGTCAGCATTAG
CCAGCAGCCCAGACCTGGAAGTCCAGTAACTGTTAGGCAGTATTTATTTGGGGGTAACTTTTTGGGAAGCAG
AAAC↑AAGAAGTAAGTTTTTC↓AAATACATTATATAACCCAAGCTGCAAGACAGACTGTTTTGGATGTTGGAA
AATACTCAGATACACACAAGGATGGCACAGTACCTTCCCGAAGAGCTTTGGAGGGGGCAAAGACCAAACGTTT
ATTGCGCACTGCAGCAGGAACAGAGGGAAAGGCTCAGCAGAGTTCACTCAAGAACTCAAGTTAAGTAACTGG
ATGAA
```

Filled site:

```
GGGGTGGGGACAGACAGGAGACACCAAAGCCCCAAGCGCTTGGAGTTGCCTAGGGTCACGTGGGAATCTGAG
GCCAGAGCAGGACTGAGGTCAAGCTCCTAGTCTCTGTGTCTAGCCCTCTTCTTACCACCCACCTTTCTCTGG
AAACACAGGATCCACCTAGGAAAGCATGGTTTTTACAGCCAAAACCCCAATTTCAGGCTGATGTCAGCATTAG
CCAGCAGCCCAGACCTGGAAGTCCAGTAACTGTTAGGCAGTATTTATTTGGGGGTAACTTTTTGGGAAGCAG
AAACAAGAAGTAAGTTTTTCTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGG
CGGGCGGATCACGAGGTCAAGGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAA
AAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGG
GAATGGCGTGAACCCGGGAGGCCGAGCTTGC... [NEOcassette] [Atail] AAGAAGTAAGTTTTTCAAA
TACATTATATAACCCAAGCTGCAAGACAGACTGTTTTGGATGTTGGAAAATACTCAGATACACACAAGGATG
GCACAGTACCTTCCCGAAGAGCTTTGGAGGGGGCAAAGACCAAACGTTTATTGCGCACTGCAGCAGGAACAGA
GGGAAAGGCTCAGCAGAGTTCACTCAAGAACTCAAGTTAAGTAACTGGATGAA
```

No repetitive sequences in the immediate proximity.

An extra T added immediately 5' of Alu.

CLONE 254

[LZ68]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 61,238,975

Strand: minus

DR: N/A

ENDOsites: N/A

Empty site:

```
GTTGCAATTTTAATAGTGTCAATGCAAAGTCTCAATGAAAAGGTGACATTTTAGCAAAGATCTTAAAAAAGG  
CAAGGGAACAGGGTAGGGCTAGTATTTAAAAATATTTAACAACTGGGACAGCATGAGCACCTACTACTAATCG  
GTGGATGTACACTTGAGCAGGGTCTTAGAGGTCATCAAAGTAAATCTGGTGATGACAGCAGAGTCATCAATA  
TATACATGTCCTTAAAAGATGTGGGCCTGAATGAGAATACCAACAAAGTGAGCACAGAGAAGATATCTATGG  
TCCAGGTCTTAGAGTATTCCAACCTTTTAGAAGTGGGAGAAGAAAAGGAAGTAGCA↑↓AAATACACTATGAAA  
ATGATGCCCGAGAATTAGGAAGAAAACAAGAATAAGGTGATAACTTGGAGTCACAGAATAAGTGCTTTGGGG  
AAGAGGGAGTCAGTAACTGTGTTAAGTGTTCAGGTAAGTTAAATAAAATGAGAAGTGGAAACAAGCATTAG  
ATTTAGCAATGCAGAGGGAAGAAAGTGAAGTCAACAAATGG
```

Filled site:

```
GTTGCAATTTTAATAGTGTCAATGCAAAGTCTCAATGAAAAGGTGACATTTTAGCAAAGATCTTAAAAAAGG  
CAAGGGAACAGGGTAGGGCTAGTATTTAAAAATATTTAACAACTGGGACAGCATGAGCACCTACTACTAATCG  
GTGGATGTACACTTGAGCAGGGTCTTAGAGGTCATCAAAGTAAATCTGGTGATGACAGCAGAGTCATCAATA  
TATACATGTCCTTAAAAGATGTGGGCCTGAATGAGAATACCAACAAAGTGAGCACAGAGAAGATATCTATGG  
TCCAGGTCTTAGAGTATTCCAACCTTTTAGAAGTGGGAGAAGAAAAGGAAGTAGCAGGCCGGGCGGGTGGCT  
CAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCT  
GGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGC  
CTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAG  
CCGAGATCCCGCC...[NEOcassette][A tail and 3' unsequenced]
```

L2 flanking the insertion site; DNA element in the 5'.

CLONE 255

[TZ10]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 62,685,113

Strand: plus

DR: N/A

ENDOSite: N/A

Empty site:

```
GGAGGATCACATGAGCCCAGGAATTTGAGGCTGAAGTGAGCTATGATCACACCACTGCACTCCAGCCTGGGC
AGCAGGGCCAAACTCCATCTCTAAAAACAAATAGGCCGGGCACAGTGGCTGACACCTGTAATCCCGGCATTT
TGCAGGCCAAGGAGCGAGGATGGGTTGAGCTCAGAAGTTAGAGACCAGCCTGAGCAACATAGTGAGACCTCG
TCTCTATTTAAACTTAGCCAGGTATAGTGATCTGTACCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGA
GGATTGCTTGAGCCAAGGAGGTCAAGTCTGCAGTGAGCTATAATCACCCTGCA↑↓CTCCAACCTTAGTGAC
AGAGTGAAACCCTGTCTCAAAAAATAAAAAATAAAAAACAAACAAA CAAAAACCCTGTGATGTCACCAAGCCT
CCCTAGCAGGGTGTACCGTTT CAGGTTTGTGTAGAACAAACAACCCATAATGGAGCAAGTAAAAGCACAAT
AATTTCTTTAGCTCACAATTATATGGCTCAGCAATTTGGG
```

Filled site:

```
GGAGGATCACATGAGCCCAGGAATTTGAGGCTGAAGTGAGCTATGATCACACCACTGCACTCCAGCCTGGGC
AGCAGGGCCAAACTCCATCTCTAAAAACAAATAGGCCGGGCACAGTGGCTGACACCTGTAATCCCGGCATTT
TGCAGGCCAAGGAGCGAGGATGGGTTGAGCTCAGAAGTTAGAGACCAGCCTGAGCAACATAGTGAGACCTCG
TCTCTATTTAAACTTAGCCAGGTATAGTGATCTGTACCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGA
GGATTGCTTGAGCCAAGGAGGTCAAGTCTGCAGTGAGCTATAATCACCCTGCAGGCCGGGCGCGGTGGCTC
ACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTG
GCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCT
GTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCC
GAGATCCCGCC... [NEOcassette] [A tail and 3' unsequenced]
```

Alu flanking the insertion site; LTR in the 3'.

CLONE 256

[BC1-18,32,37,38]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 65,857,789

Strand: minus

DR: N/A

ENDOSite: N/A

Empty site:

```
AGACTTGTATCAAAAAACAAAACAAAACAAAAAACTATTGGTAGGATGGGTGTTTTAAAAAGTAGTATTTTC
ACGATGCAAGAGAAAAAGGGGTTTCAGGGAAAGAAAGGGGTGCAGGCAAAGAAATCCCTAGGAAGTAGCATAA
ATAGGCTGAGACCTCAAGAATGAGCTAGTTAGCCAACAGGTTTTTAGGTGCTTTGGTTTGCTTTTTATTTAT
GTTGTCTTAAGTGTTAGAAAGCAAGATAATTAATGTACAAAGTTAGGGATCTGTGCTAAAGAATCTGAAGT
TTTGGTTAAGGGCAAATGGAAGTAATTGTAATTAAGGTTTTTC↑↓AACTTAGGGGAAAAGGAGACTTGAT
CAAATTTGCTGTTTTAAAAATCATCCAGCTATGGCTGGGCATGGTGGCTCACATCTGTAATCCCAGCACATT
TGGAGGCTGAGGTGGGCTGATCACCTGAGGTCAGGAGTTCAATATCAGCCTGGCCAACATGGTGAACCCCTG
TCTCTACTAAAAATACAAAATTAGCCAGGTG
```

Filled site:

```
AGACTTGTATCAAAAAACAAAACAAAACAAAAAACTATTGGTAGGATGGGTGTTTTAAAAAGTAGTATTTTC
ACGATGCAAGAGAAAAAGGGGTTTCAGGGAAAGAAAGGGGTGCAGGCAAAGAAATCCCTAGGAAGTAGCATAA
ATAGGCTGAGACCTCAAGAATGAGCTAGTTAGCCAACAGGTTTTTAGGTGCTTTGGTTTGCTTTTTATTTAT
GTTGTCTTAAGTGTTAGAAAGCAAGATAATTAATGTACAAAGTTAGGGATCTGTGCTAAAGAATCTGAAGT
TTTGGTTAAGGGCAAATGGAAGTAATTGTAATTAAGGTTTTTCGGCCGGGCGCGGTGGCTCACGCCTGTA
ATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACG
GTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCA
GCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCG
CCACTGCACTCCA...[NEOcassette][A tail and 3' unsequenced]
```

Alu in the 3'.

CLONE 257

[LZ23]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 17

5' position: 68,043,422

Strand: plus

DR: AAAAAGTAATTAATA

ENDOSite: TTTT/AA

Empty site:

```
TTTAAAAAAAAAAAAACAAGTAAATAAACCCATAAGTTAAACATTCAGTATTGTTTCATATCCAATCACCTAAACA
AATAAAATGTAATATCTGTTCCCAAATATGATGGCTATATTTTGTATTATTACAGAAATAGTTGAATTCAGA
GCCAATTTTGATTTCTTGTTTCCTAGTTCAGTTAATAGGAAGCAATTGTGAATAATACAGGCACCTCCTGAA
AGAGGCAATTCTTTAATAGAAATTCTAGTTTGACTTCTTTACTGTTTGGTACAATACTATTTTCTCCAATTT
TT↑AAAAAGTAATTAATA↓ATTAATTATTGTTATTGAAAGTTTTGCTGTTGTTTCTACTATGGAGCTACTAT
GACAACCTACATTAGCAATTCTGTTAAGGTACTGGTGCATAGTATTTGAAAGTTTGCAAGCCATAGAGCCAGG
CGTGGTGGCCAGTGCCTATAATCCCAGCTAATTGAGAGGCTAAGGAGTTGGGAGGATTGCACGAGCCCAAGA
ATT
```

Filled site:

```
TTTAAAAAAAAAAAAACAAGTAAATAAACCCATAAGTTAAACATTCAGTATTGTTTCATATCCAATCACCTAAACA
AATAAAATGTAATATCTGTTCCCAAATATGATGGCTATATTTTGTATTATTACAGAAATAGTTGAATTCAGA
GCCAATTTTGATTTCTTGTTTCCTAGTTCAGTTAATAGGAAGCAATTGTGAATAATACAGGCACCTCCTGAA
AGAGGCAATTCTTTAATAGAAATTCTAGTTTGACTTCTTTACTGTTTGGTACAATACTATTTTCTCCAATTT
TTAAAAAGTAATTAATAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAAA
TACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAAT
GGCGTGAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [Atail] AAA
AAGTAATTAATAATTAATTATTGTTATTGAAAGTTTTGCTGTTGTTTCTACTATGGAGCTACTATGACAACCT
ACATTAGCAATTCTGTTAAGGTACTGGTGCATAGTATTTGAAAGTTTGCAAGCCATAGAGCCAGGCGTGGTG
GCCAGTGCCTATAATCCCAGCTAATTGAGAGGCTAAGGAGTTGGGAGGATTGCACGAGCCCAAGAATT
```

Alu in the 3'.

CLONE 258

[LZ32]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 18

5' position: 32,733,002

Strand: plus

DR: TAAAACAATAAATCC

ENDOsites: TTTA/AT

Empty site:

```
AAAGCAATTCAATGAGCTAATCTCAGTAAACCTAGAATTAAGTTCTTGTTTCCATATTTCACTTTCAA  
AATATTTAGAACTTTGACAGATATGACATTATGTTTTTCATTAAAAACAGCTGATTTCAAAATGTTGCTCTGTGCAG  
AAACGCCATAAACAGTTTATGATGAACTGCCACGCTCTTAAT ↑ TAAAACAATAAATCC ↓ AGCACACAATATT  
TGTGCAGCCTCCGGTCTGACCTTTGCCTCTTGCTATCCACCACCAAGCCGCGGCTGCGTTCCCAACGCCAGA  
CGTGAAGGTTTTAAAACATGATCTGAAAGGCACTAAAGATAAAAATAAGAGAAAACGTACCATTAGTCTTCG  
CAGTTATGATTAATTCAGTTCATATTTTACAATCTGGTTATGG
```

Filled site:

```
AAAGCAATTCAATGAGCTAATCTCAGTAAACCTAGAATTAAGTTCTTGTTTCCATATTTCACTTTCAA  
AATATTTAGAACTTTGACAGATATGACATTATGTTTTTCATTAAAAACAGCTGATTTCAAAATGTTGCTCTGTGCAG  
AAACGCCATAAACAGTTTATGATGAACTGCCACGCTCTTAATTAAAAACAATAAATCCTGGCCGGGCGCGGTG  
GCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCAT  
CCTGGCTAACACGGTGAAACCCGCTCTCTACTAAAAAATAACAAAAATTAGCCGGGCGTGGTAGCGGG  
CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGT  
GAGCCGAGATCCCGCC... [NEOcassette] [A tail] TAAAACAATAAATCCAGCACACAATATTTGTGC  
AGCCTCCGGTCTGACCTTTGCCTCTTGCTATCCACCACCAAGCCGCGGCTGCGTTCCCAACGCCAGACGTGG  
AAGGTTTTAAAACATGATCTGAAAGGCACTAAAGATAAAAATAAGAGAAAACGTACCATTAGTCTTCGCAGTT  
ATGATTAATTCAGTTCATATTTTACAATCTGGTTATGG
```

No repetitive sequences in the immediate proximity.

An extra T added immediately 5' of Alu.

CLONE 259

[LZ51]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 19

5' position: 57,679,450

Strand: plus

DR: TAAAAATTCTGTGATCAA

ENDOsites: TTTA/GC

Empty site:

```
TGCTCCTTGGCTCCCCCAACCCCTTGTGGGAAAAAAATTCGTCCCAAATCACTGGAACCTGAACAGGGAGA
CAAGCTTGCAATAGTTGCCAATTTTTTAAAAAAGAATATTTTTGAGTACTATTCTGCTTACACATATTTTTTC
AATGCTTATTATATACATATAGTCTTTTGTAAATGGGGTTTTTATGCTCTCCACCTATCTTTTGACATAGTG
GCCTCTCCTTATAAATTTAAAAGTGTTATTTCTAATTAGTATCACATAAGAGTGAGGCTAGTGAGACAGGAAC
AAAATTTAAGGTGGTGC ↑TAAAAATTCTGTGATCAA↓ GATAAATAGTATTTGAAAGCAATGTATATTTAAG
TAATGTAAAAAGTCCATCTTAACAAAACATAAAAGATTGTAATAAAAAAGAAGATCCACCCTGCACGTGCAC
GACCCTGCAAGTTATGCAAGTGAGGGTACCTGCGCATTGAAAAAAGATGTCTCACCATTGACCAGTCATTGA
TCAGTCATTGATCAGTCTTGA
```

Filled site:

```
TGCTCCTTGGCTCCCCCAACCCCTTGTGGGAAAAAAATTCGTCCCAAATCACTGGAACCTGAACAGGGAGA
CAAGCTTGCAATAGTTGCCAATTTTTTAAAAAAGAATATTTTTGAGTACTATTCTGCTTACACATATTTTTTC
AATGCTTATTATATACATATAGTCTTTTGTAAATGGGGTTTTTATGCTCTCCACCTATCTTTTGACATAGTG
GCCTCTCCTTATAAATTTAAAAGTGTTATTTCTAATTAGTATCACATAAGAGTGAGGCTAGTGAGACAGGAAC
AAAATTTAAGGTGGTGC TAAAAATTCTGTGATCAA GGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCAC
TTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCC
GTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGG
AGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAAGTGGCCGAGATCCCGCCACTGCACT
cc... [NEOcassette] [Atail] TAAAAATTCTGTGATCAA GATAAATAGTATTTGAAAGCAATGTATAT
TTTAAGTAATGTAAAAAGTCCATCTTAACAAAACATAAAAGATTGTAATAAAAAAGAAGATCCACCCTGCAC
GTGCACGACCCTGCAAGTTATGCAAGTGAGGGTACCTGCGCATTGAAAAAAGATGTCTCACCATTGACCAGT
CATTGATCAGTCATTGATCAGTCTTGA
```

DNA element flanking the insertion site.

CLONE 261

[LZ10]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 20

5' position: 48,437,556

Strand: plus

DR: AAGAGTTCTTTATATAT

ENDOsites: TCTT/AA

Empty site:

```
CACCATGTTGGCCAGGCTGGTCTTGAACCTCCGACCTCAGGTGATCTGCTTGCCTCAGCCTCCCAAAGTGCTG
GGATTCCAGGTGTGAGCCACCGCACCAGGCCCTCACTGTATTTTTTAAAAAATCTTACATGTCCTTCCAGTG
AATCATTGTATTTTTGATTTTAGTTTCCCTTGTGACTATTGATGTTGAACATCTTTTGTCTATTTCATGTCCTA
TGCCCGTTTTAAAAGCTGTGGTGTGGTCTCTTGGCTGTTGAGTTT↑AAGAGTTCTTTATATAT↓TGTGGATA
GTACACCTTTATCAGATATATGATTTGCAAATATTTTCTCCCCTTCTATGGATTGTCTTTTCTGACTTTATT
CTTTTTAATGGCTGAAGGCTGTTACCTGGCATTGATGAGCCTTATATTAAGTCTTTCTGTTAATAGTTTCCC
CTTTTGCTCTTAAAGCCGCAAAGAGTTGTTTGATCTATTTATGAGAAT
```

Filled site:

```
CACCATGTTGGCCAGGCTGGTCTTGAACCTCCGACCTCAGGTGATCTGCTTGCCTCAGCCTCCCAAAGTGCTG
GGATTCCAGGTGTGAGCCACCGCACCAGGCCCTCACTGTATTTTTTAAAAAATCTTACATGTCCTTCCAGTG
AATCATTGTATTTTTGATTTTAGTTTCCCTTGTGACTATTGATGTTGAACATCTTTTGTCTATTTCATGTCCTA
TGCCCGTTTTAAAAGCTGTGGTGTGGTCTCTTGGCTGTTGAGTTTAAAGAGTTCTTTATATATGGCCGGGCGC
GGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTGAGGAGATCGAGA
CCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGC
GGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCCGAGCTTGC
AGTGAGCCGAGATCCCGCCACTGCACTCCAG... [NEOcassette] [Atail] AAGAGTTCTTTATATATT
GTGGATAGTACACCTTTATCAGATATATGATTTGCAAATATTTTCTCCCCTTCTATGGATTGTCTTTTCTGA
CTTTATTCTTTTTAATGGCTGAAGGCTGTTACCTGGCATTGATGAGCCTTATATTAAGTCTTTCTGTTAATA
GTTTCCCCTTTTGTCTCTTAAAGCCGCAAAGAGTTGTTTGATCTATTTATGAGAAT
```

Alu in the 5'; LINE-1 flanking the insertion site.

CLONE 262

[LZ61,66]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 20

5' position: 52,835,539

Strand: minus

DR: AAAAAAAAAATATTTTA

ENDOsites: TTTT/CC

Empty site:

CATTTGAAGAAGGAAAATTATCATTTTAAACAATATTCAAGTTTATTAAACAAATAAAAAAGTATTATAAA
ATGTTTAACTTTTCATCAGCTTCAAGGTTTATGTTGCTCCCGAATTTTGCATACAACCTGAACCTTTCAAATCTG
CTAACACTCGCTGAATTGATTCCACTCTGGATTCTAAGGCGTCAATTTCTTCTTGCAAATTTTTCTGG ↑ **AAA**
AAAAAATATTTTA ↓ AATTAATTCTATTCAATAGGATGATTTCTGAGCATCTGTGTCTGAAATAATATTTGGG
AAGAATTTTAGGTCAAGAACCTTCTAAACTTGGACAGGCAGCTAAGTAACACTGATAATTAGATCTAAATGT
CTGAATGTGGGCATTTTTAATTCATGGTCCATATCTGCTTATCACAGAATAAATCAAGTTTGTCTTCTCA

Filled site:

CATTTGAAGAAGGAAAATTATCATTTTAAACAATATTCAAGTTTATTAAACAAATAAAAAAGTATTATAAA
ATGTTTAACTTTTCATCAGCTTCAAGGTTTATGTTGCTCCCGAATTTTGCATACAACCTGAACCTTTCAAATCTG
CTAACACTCGCTGAATTGATTCCACTCTGGATTCTAAGGCGTCAATTTCTTCTTGCAAATTTTTCTGGAAAA
AAAAATATTTTAGGCCGGGCGGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGA
TCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAAATACAA
AAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGT
GAACCCGGGAGGCCGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [Atil] AAAAAAAA
ATATTTTAAATTAATTCTATTCAATAGGATGATTTCTGAGCATCTGTGTCTGAAATAATATTTGGGAAGAAT
TTTAGGTCAAGAACCTTCTAAACTTGGACAGGCAGCTAAGTAACACTGATAATTAGATCTAAATGTCTGAAT
GTGGGCATTTTTAATTCATGGTCCATATCTGCTTATCACAGAATAAATCAAGTTTGTCTTCTCA

No repetitive sequences in the immediate proximity.

CLONE 263

[LZ8]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 20

5' position: 59,087,654

Strand: minus

DR: GAAAATCTCA

ENDOsites: TTTC/AA

Empty site:

```
GAATTCCAATTATGCTAACTGCCATGAAAAAGTGAGCAGTATTGTGAAAAGTTTCCAGGAATATGCGTCGTTT
AAAATGAGACTTAAAGAGTCATTGGAAATTGGTCAGGTTAAAAGAGGGAAGAAAATTATCCTAAGCTGAAGA
AACAATTAATAAAAAAAAAATCAAACCACGACATACTT†GAAAATCTCA‡AAGGCTGGCATGCCTGGAGCAGAGC
AAGCAATGGAAAAGATGCTGAGAAAATGAGGAAATGAGGACAGATCTGCAGTTCTCCACTTTTACTGCATGTG
AAAATCACATGGATCGCTTTGAAAACGTTATCTATGTGCAGGCCCTATTCTAGTTAGCTAAATCAAAGCTC
CTTCTTGGGGGAAGAAAAAAGCTCTCTAGT
```

Filled site:

```
GAATTCCAATTATGCTAACTGCCATGAAAAAGTGAGCAGTATTGTGAAAAGTTTCCAGGAATATGCGTCGTTT
AAAATGAGACTTAAAGAGTCATTGGAAATTGGTCAGGTTAAAAGAGGGAAGAAAATTATCCTAAGCTGAAGA
AACAATTAATAAAAAAAAAATCAAACCACGACATACTTGAATACTCAGGCCGGGCGCGGTGGCTCACGCCTGTA
ATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACG
GTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCC
CAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCC
CGCCACTGCA... [NEOcassette] [A tail] GAAAATCTCAAAGGCTGGCATGCCTGGAGCAGAGCAAGC
AATGGAAAAGATGCTGAGAAAATGAGGAAATGAGGACAGATCTGCAGTTCTCCACTTTTACTGCATGTGAAAA
TCACATGGATCGCTTTGAAAACGTTATCTATGTGCAGGCCCTATTCTAGTTAGCTAAATCAAAGCTCCTTC
TTGGGGGAAGAAAAAAGCTCTCTAGT
```

L2 flanking the insertion site; hAT-Charlie DNA element in the 3'.

CLONE 264

[LZ49]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 21

5' position: 46,280,278

Strand: plus

DR: AAAAATAAATAAATA

ENDOsites: TTTT/GA

Empty site:

```
CACACCACAAACTGATTTAAAAGGCCAAACTACGGGGCTGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACT
TTGGGAGGCTGAGGTGGGCAGATCATGAGGTGAGGAGATCGAGACCATCCTGGCTAACACAGTGAAACCCCG
TCTCTACTAAAAAATACAAGAAATTAGCCGGACGTGGTGGCGGGCACCTGTAGTCCCAGCTACTCAGGAGGC
TGAGGCAGGAGAATGGCGTGAACCTGGGAGGCGGAGCTTGCAGTGAGCCAAGATAGTGCCATTGCACTCCAG
CCCGTCTC↑AAAAATAAATAAATA↓AATAAATAAAGGCCAAACTAGAAAACAACCTGGAATCTCACAAGAGCTG
ATTTCTTAATTTAAAAACGCCTCCAAAATCAAATATACAAAGATACGCACACAAAAAAGAGGGCTGTCTA
CGCAAGCAGGGATTCTTAAGCTGGGAAAACCTGGAGATTCTAGGGGAATTCACAGGTGAGTTTCAGGGGTGAC
ACATGAACA
```

Filled site:

```
CACACCACAAACTGATTTAAAAGGCCAAACTACGGGGCTGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACT
TTGGGAGGCTGAGGTGGGCAGATCATGAGGTGAGGAGATCGAGACCATCCTGGCTAACACAGTGAAACCCCG
TCTCTACTAAAAAATACAAGAAATTAGCCGGACGTGGTGGCGGGCACCTGTAGTCCCAGCTACTCAGGAGGC
TGAGGCAGGAGAATGGCGTGAACCTGGGAGGCGGAGCTTGCAGTGAGCCAAGATAGTGCCATTGCACTCCAG
CCCGTCTCAAAAATAAATAAATAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCG
AGGGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAA
AAAAAATAAATAAATAAATAAATAAATAAATAAAGGCCAAACTAGAAAACAACCTGGAATCTCACAAG
AGCTGATTTCTTAATTTAAAAACGCCTCCAAAATCAAATATACAAAGATACGCACACAAAAAAGAGGGCT
GTCTACGCAAGCAGGGATTCTTAAGCTGGGAAAACCTGGAGATTCTAGGGGAATTCACAGGTGAGTTTCAGGG
GTGACACATGAACA
```

Alu in the 5'.

CLONE 265

[LZ72]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 22

5' position: 20,311,747

Strand: plus

DR: AAAAAAAGTGTC

ENDOsites: TTTT/AC

Empty site:

```
GAAGTCCCAGCTACTTGCCACTTGGGAGACTGAGGTGGGATCACTTGAGCCCAGGAGGTCCAGGCTGCAGTG
AGCTGAGATCACACCACTGTACTGCAGCCTGGGCAACAGAACAAGAATCAAATAATAAATAAGTAAGTAAGT
GAGTAAATCCATCCATCCACCCAGAGTGAGTCAGCTGGGGCTGCTGCATTGCTCCTCCCTCACCCACAGGA
TTCCCTGGTTCCAGCCAGGAGACGATGGTCAACAGCCACTGCTGTAGTGGTGCCTAGTTAAAACCTCTTTGGT
TTCTGTCTCTGT↑AAAAAAAAGTGTC↓TAATTGCATTTGGGCAAAAACTTGCAGTGAAGAGAGAAAAAGAG
ATGAAAGCAACCTGTGAGGGAGGCTCGGGTTGACGTGCGGCATGTGCTGTTTGAGTGTGATGAGTGTGTCGG
TTTGCACTGTAGATGCTCAGGAAGTGAGGATATGTGGAGTGCTGACTGTATACATGATGCCTCCACTGGCTG
GCTGAGTAGAG
```

Filled site:

```
GAAGTCCCAGCTACTTGCCACTTGGGAGACTGAGGTGGGATCACTTGAGCCCAGGAGGTCCAGGCTGCAGTG
AGCTGAGATCACACCACTGTACTGCAGCCTGGGCAACAGAACAAGAATCAAATAATAAATAAGTAAGTAAGT
GAGTAAATCCATCCATCCACCCAGAGTGAGTCAGCTGGGGCTGCTGCATTGCTCCTCCCTCACCCACAGGA
TTCCCTGGTTCCAGCCAGGAGACGATGGTCAACAGCCACTGCTGTAGTGGTGCCTAGTTAAAACCTCTTTGGT
TTCTGTCTCTGTAAAAAAAAGTGTCGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGC
CGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTA
AAAAAAAATACAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGG
CAGGGGAATGGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCCACTGCACTCC... [NEOca
ssette] [Atail] AAAAAAAGTGTCTAATTGCATTTGGGCAAAAACTTGCAGTGAAGAGAGAAAAAGA
GATGAAAGCAACCTGTGAGGGAGGCTCGGGTTGACGTGCGGCATGTGCTGTTTGAGTGTGATGAGTGTGTCG
GTTTGCACTGTAGATGCTCAGGAAGTGAGGATATGTGGAGTGCTGACTGTATACATGATGCCTCCACTGGCT
GGCTGAGTAGAG
```

Alu in the 5'.

CLONE 266

[LZ73]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: 22

5' position: 38,002,187

Strand: plus

DR: AAAAGTGACTCC

ENDOsites: TTTT/AA

Empty site:

```
GTGTAACAGTTACTGTTTTAGGGCTTGGGGATATATTATTAGTGAAGTAACTAAATAAAAATCCATTGCCGTG
GTGGAGCTTACATTCTGGTGGGGGAGAGAGACACAAAACACAACAAAGAAATGAAATATGTAGTGGAGATAA
GTGCTAAGGAGAAAAGTTCAGCAGAAAAGGTGGTAGGGAACATGTGGTAGGGGATTAATTTTTGCAGACACAC
TTGTTCAAGATCATCCAGAAAAGCAGTGAAGTCAGAATTTGCACCTAAATCAAATCTATTTTTGTCTTT † AAAA
GTGACTCC † TGACAGCACAGACATGTCCCTAAATGAATGCAGTAAATGCGATGTGAGTTTTATTTTCAGTAAT
AATTCATCTCAGGCTGGGCGTGGTGGCTCACGCCTGTAATCCAAACACTTTGGGTGGTCAAGGCAGGTGGAT
CACCTGAGGTCAAGGGTTCGAGACCCGCCTGGCCAACATGGCGAAACCCTGTCTCTACTAAAAAT
```

Filled site:

```
GTGTAACAGTTACTGTTTTAGGGCTTGGGGATATATTATTAGTGAAGTAACTAAATAAAAATCCATTGCCGTG
GTGGAGCTTACATTCTGGTGGGGGAGAGAGACACAAAACACAACAAAGAAATGAAATATGTAGTGGAGATAA
GTGCTAAGGAGAAAAGTTCAGCAGAAAAGGTGGTAGGGAACATGTGGTAGGGGATTAATTTTTGCAGACACAC
TTGTTCAAGATCATCCAGAAAAGCAGTGAAGTCAGAATTTGCACCTAAATCAAATCTATTTTTGTCTTTAAAAG
TGACTCCAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAC
GAGGTCAGGAGATCGAGACCATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAAAAATACAAAAAA
TTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGGGAATGGCGTGAAC
CCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCCCGCC... [NEOcassette] [A tail]AAAAGTGACTCC
TGACAGCACAGACATGTCCCTAAATGAATGCAGTAAATGCGATGTGAGTTTTATTTTCAGTAATAATTCATCT
CAGGCTGGGCGTGGTGGCTCACGCCTGTAATCCAAACACTTTGGGTGGTCAAGGCAGGTGGATCACCTGAGG
TCAGGGGTTTCGAGACCCGCCTGGCCAACATGGCGAAACCCTGTCTCTACTAAAAAT
```

L2 in the 5'; Alu in the 3'.

An extra A added immediately 5' of Alu.

CLONE 267

[GG27]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: X

5' position: 118,503,604

Strand: minus

DR: N/A

ENDOfsite: N/A

Empty site:

```
TTTAGAGATTGAATGCAATTCCAATTAAAATTCTAAATAGAACCAAGAATAAGCAAGACAATATTAAAGCAG
TACAATATACCCTACCCGATGGCAGCACTTCTTATAAGCTGTAGTAATTAAGGCAGTACAGAGAAAAATAGA
CCAGTGGGACAGAATGCAAAGAGCCCAGAAAACCACGTGTAAAGAAAATCTTAATACATGATCAGTGTGGAAA
TGATTTATTTAATAAATGTTGTTGGAACCACTGGTTATTATTTTGG↑↓AAAAAATAAAAATCTCAACCCAC
ATTGTACACAAAAACAACCTCAAAGTGGTTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT
TCCCCCAGGCTGGAGTGCAGTGGCGTGATCTCGGCTCACTGCAACCTCTGCCTCCTGGGTTTGAGCGATTCT
CCTGCCTCAGCTTCCTGACTAGCTGGGACTAC
```

Filled site:

```
TTTAGAGATTGAATGCAATTCCAATTAAAATTCTAAATAGAACCAAGAATAAGCAAGACAATATTAAAGCAG
TACAATATACCCTACCCGATGGCAGCACTTCTTATAAGCTGTAGTAATTAAGGCAGTACAGAGAAAAATAGA
CCAGTGGGACAGAATGCAAAGAGCCCAGAAAACCACGTGTAAAGAAAATCTTAATACATGATCAGTGTGGAAA
TGATTTATTTAATAAATGTTGTTGGAACCACTGGTTATTATTTTGGGGCCGGGCGCGGTGGCTCACGCCTGT
AATCCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACAC
GGTGAAACCCCGTCTCTACTAAAAAAAATACAAAAAATTAGCCGGGCGTGGTAGCGGGCGCCTGTAGTCCC
AGCTACTCGGGAGGCTGAGGCAGGGGAATGG...[NEOcassette][A tail and 3'
unsequenced]
```

LINE-1 flanking the insertion site; Alu in the 3'.

CLONE 268

[GG23]

Driver: ORF2

Plasmid: AlurescueA70Du A₁₇CATTACA₁₈GA₁₇CACACA₁₈ (T)

Chromosome: X

5' position: 134,042,388

Strand: minus

DR: AAGATTTACTGCTCCTC

ENDOsites: TCTT/AA

Empty site:

```
CTGGTCACAAGGTGGTGTGCACACATAAGGTTTTCTTTATAATTTTCATTCAGGATTGTTTTTCTGTGCCTTT
GGTACAGGGGAGGAAGACAAGACAGTTTTCTGTATCACCAGATCTCAGCTGCGCTCTCTGCCTGTGAGGTCA
GAAGTGTGTTGGAGCCTCAGATTTCTAAATGCTTGCTGGCACAGTTAGGCACTGAAGAGCCAGGGAAAATCA
GAGGGAAACAGAAGGAGGGGAGGGGAGAAGAGGGGAAGAGAGGTAAGTGGGAGTGCTGATTCTCTCTGCTCT
CCTCTTACCCCAACCCATGGTGAGCAGCCACTT↑AAGATTTACTGCTCCTC↓TAATTAGGATCCCTTGCTTG
TCTTGTATAGACAAAGTGTGTTTCTAGCTATGACGGGTGAGTGGTGGGGGGAATGTTCCCCAGTGGAGGAGACA
GTTATTAGTAGACATCTGTAGGATAACTGATAAGCTTTTAGCTATCTGCTAAGTGCCAGCACTGACCTTGG
GCCTGTGAGGGGTGCAAAAAACAAAAGCATCCCACC
```

Filled site:

```
CTGGTCACAAGGTGGTGTGCACACATAAGGTTTTCTTTATAATTTTCATTCAGGATTGTTTTTCTGTGCCTTT
GGTACAGGGGAGGAAGACAAGACAGTTTTCTGTATCACCAGATCTCAGCTGCGCTCTCTGCCTGTGAGGTCA
GAAGTGTGTTGGAGCCTCAGATTTCTAAATGCTTGCTGGCACAGTTAGGCACTGAAGAGCCAGGGAAAATCA
GAGGGAAACAGAAGGAGGGGAGGGGAGAAGAGGGGAAGAGAGGTAAGTGGGAGTGCTGATTCTCTCTGCTCT
CCTCTTACCCCAACCCATGGTGAGCAGCCACTTAAGATTTACTGCTCCTCGCTTGCAGTGAGCCGAGATCCC
GCCACTGCA...[NEOcassette] [Atail]AAGATTTACTGCTCCTCTAATTAGGATCCCTTGCTTGTCT
TGTATAGACAAAGTGTGTTTCTAGCTATGACGGGTGAGTGGTGGGGGGAATGTTCCCCAGTGGAGGAGACAGTT
ATTAGTAGACATCTGTAGGATAACTGATAAGCTTTTAGCTATCTGCTAAGTGCCAGCACTGACCTTGGGCC
TGTGAGGGGTGCAAAAAACAAAAGCATCCCACC
```

No repetitive sequences in the immediate proximity.

Alu insert truncation: missing 220 bp of 5' Alu sequence.