

Supplemental Figure S7. Sequence alignment of recovered of simple and complex chimera events recovered after nickel treatment. The specific nucleotides used to identify the Alu1-Alu2 boundaries are indicated in red for Alu2 and in blue for Alu1. **A.** 5% simple chimera, **B.** 5% complex chimera, **C.** 10% simple chimera and **D.** 10% complex chimera.

A. Alignment of the recovered simple chimera from 5%AARP treated with 100µM NiCl₂ is shown.

Majority	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGTTTCACGAGGTCAGGA	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
Alu2 5%	-----GGCCGGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGATTCACGAGGTCAGGA	74
Alu1 5%	-----GGCCGGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGTTTCACGAGGTCAGGA	74
Ni3	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGATTCACGAGGTCAGGA	127
Ni4	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGATTCACGAGGTCAGGA	171
Ni12	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGATTCACGAGGTCAGGA	185
Ni13	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGATTCACGAGGTCAGGA	185
Ni10	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGATTCACGAGGTCAGGA	185
Ni11	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGATTCACGAGGTCAGGA	185
Ni9	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGTTTCACGAGGTCAGGA	185
Ni2	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGTTTCACGAGGTCAGGA	127
Ni8	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGTTTCACGAGGTCAGGA	185
Ni22	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGTTTCACGAGGTCAGGA	127
Ni5	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGTTGGGCGGTTTCACGAGGTCAGGA	140
Ni1	CTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGGCGGTTTCACGAGGTCAGGA	240

Majority	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	250 260 270 280 290 300 310 320	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
Alu2 5%	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	154
Alu1 5%	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	154
Ni3	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	207
Ni4	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	251
Ni12	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	265
Ni13	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	265
Ni10	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	265
Ni11	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	265
Ni9	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	265
Ni2	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	207
Ni8	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	265
Ni22	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	207
Ni5	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	220
Ni1	GATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGGC	320

Majority GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 330 340 350 360 370 380 390 400
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 Alu2 5% GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 234
 Alu1 5% GCCTGAAAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAGA 234
 Ni3 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 287
 Ni4 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 331
 Ni12 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 345
 Ni13 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 345
 Ni10 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 345
 Ni11 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 345
 Ni9 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 345
 Ni2 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 287
 Ni8 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 345
 Ni22 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 287
 Ni5 GCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGA 300
 Ni1 GCCTGAAAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAGA 400

Majority TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA-GAATTCTTTTCTGCAG
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 410 420 430 440 450 460 470 480
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 Alu2 5% TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTC 281
 Alu1 5% TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTC 281
 Ni3 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA-AATTTTTTTTTTGNNG 366
 Ni4 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAACAAAAGAATTCTTTTCTGCAG 411
 Ni12 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA---GAATTCTTTTCTGCAG 422
 Ni13 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA-GAATTCTTTTCTGCAG 424
 Ni10 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA--GAATTCTTTTCTGCAG 423
 Ni11 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA--GAATTCTTTTCTGCAG 423
 Ni9 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAGAATTCTTTTCTGCAG 425
 Ni2 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA-AATTTTTTTTTTNNNG 366
 Ni8 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA-GAATTCTTTTCTGCAG 424
 Ni7 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA-GAATTCTTTTCTCCAG 423
 Ni22 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAATTTTTTTTTNNNGG 367
 Ni5 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA-----TTCTTTTCTGCAG 372
 Ni1 TCGCGCCACTGCACTCCAGCCTGGGGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAA-AATTTTTTTTTTGNNG 479

B . Alignment of the recovered complex chimera from 5%AARP treated with 100µM NiCl₂ is shown.

Majority	GCTTAAAGGCCGGCGCGGTGGCTCAGGCCTGTAATCCCAGCACTTXGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	170 180 190 200 210 220 230 240	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
Alu2 5%	-----GGCCGGGCGCGGTGGCTCACGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGG	73
Alu1 5%	-----GGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	73
Ni14	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	240
Ni7	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	184
Ni6	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	184
Ni15	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	240
Ni16	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	126
Ni17	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	126
Ni18	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGG	170
Ni20	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	170
Ni21	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGG	126
Ni23	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCGGTTTCACGAGGTCAGG	130
Ni24	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGG	130
Ni19	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGG	170
Ni25	GCTTAAAGGCCGGGCGCGGTGGCTCAGGCCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGCGGATCACGAGGTCAGG	130
Majority	AGATCGAGACAATCCTGGCTAACACGXTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGXGCGTGGTGGCGGG	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	250 260 270 280 290 300 310 320	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
Alu2 5%	AGATCGAGACAATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	153
Alu1 5%	AGATCGTGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGCGCGTGGTGGCGGG	153
Ni14	AGATCGTGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGCGCGTGGTGGCGGG	320
Ni7	AGATCGTGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	263
Ni6	AGATCGTGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	263
Ni15	AGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	320
Ni16	AGATCGAGACAATCCTGGCTAACACGGTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGCGCGTGGTGGCGGG	206
Ni17	AGATCGTGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	206
Ni18	AGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	250
Ni20	AGATCGTGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGCGCGTGGTGGCGGG	250
Ni21	AGATCGTGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	206
Ni23	AGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	210
Ni24	AGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTTACTATAAAATACAAAAAATTAGCCGCGCGTGGTGGCGGG	210
Ni19	AGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGGCGTGGTGGCGGG	250
Ni25	AGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAAAAATTAGCCGCGCGTGGTGGCGGG	210

Majority CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 330 340 350 360 370 380 390 400

Alu2 5% CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 233
 Alu1 5% CGCCTGAAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAG 233
 Ni14 CGCCTGAAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAG 400
 Ni7 CGCCTGAAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAG 343
 Ni6 CGCCTGAAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAG 343
 Ni15 CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAG 400
 Ni16 CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 286
 Ni17 CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 286
 Ni18 CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 330
 Ni20 CGCCTGTAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAG 330
 Ni21 CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 286
 Ni23 CGCCTGTAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTAGCAGTGAGCCGAG 290
 Ni24 CGCCTGAAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 290
 Ni19 CGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 330
 Ni25 CGCCTGAAGTCCCAGCTACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAG 290

Majority ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAATTTTTTTTGGXXG
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 410 420 430 440 450 460 470 480

Alu2 5% ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTC 281
 Alu1 5% ATCGCGGCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTC 281
 Ni14 ATCGCGGCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAATTTTTTTTGGNGG 480
 Ni7 ATCGCGGCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAA-GAATTCCTTTCTCCA 422
 Ni6 ATCGCGGCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAGAATTCCTTTCTGCA 422
 Ni15 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAATTTTTTTTGGNGG 480
 Ni16 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAATTTTTTTTGGNGG 366
 Ni17 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAATTTTTTTTGGNGG 366
 Ni18 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAGAATTCCTTTCTGCAG 410
 Ni19 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAGAATT-TTTTNNCGAG 409
 Ni20 ATCGCGGCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAGAA-TTCTTTCTGCAG 409
 Ni21 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAATTTTTTTTGGNGG 366
 Ni22 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAATTTTTTTTNNNG 366
 Ni23 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAG---NTNNN 360
 Ni24 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCNNNNNNNNNNNNNNNAAANN 360
 Ni19 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAGAATT-TTTTNNCGAG 409
 Ni25 ATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAG----- 354

C. Alignment of the recovered simple chimera from 10%AARP treated with 100µM NiCl₂ is shown.

Majority	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATGCCAGCACTTAGGGAGGCCGAGGCCG	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
Alu2 10%	-----GGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	55
Alu1 10%	-----GGCCGGGCGGTGGCTGGCTCAGGCCTGTAATGCCAGCACTAGGGAGGCCGTGGCGG	55
Ni34	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATGCCAGCACTAGGGAGGCCGTGGCGG	90
Ni26	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATGCCAGCACTAGGGAGGCCGCGGCCG	160
Ni29	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATGCCAGCACTAGGGAGGCCGTGGCGG	90
Ni32	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	90
Ni30	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	90
Ni42	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	99
Ni27	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	90
Ni28	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	160
Majority	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
Alu2 10%	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	135
Alu1 10%	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	135
Ni34	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	170
Ni26	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	240
Ni29	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	170
Ni32	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	170
Ni30	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTAGNAAAAAATACAAAAAATTA	170
Ni42	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	179
Ni27	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	170
Ni28	GCGGATCACGAGGTCAGGAGATCGAGACAATCCTGGCTAACACGGTGAACCCCGTCTCTACTAAAAATACAAAAAATTA	240
Majority	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	250 260 270 280 290 300 310 320	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
Alu2 10%	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	215
Alu1 10%	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCAACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGTGGCGG	215
Ni34	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCAACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGTGGCGG	250
Ni26	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCAACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGTGGCGG	320
Ni29	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	250
Ni32	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	250
Ni30	NCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	250
Ni42	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	259
Ni27	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	250
Ni28	GCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCCG	320

Majority	AGCTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	330 340 350 360 370 380 390 400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
Alu2 10%	AGCTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	295
Alu1 10%	AGCTAGCAGTGAGCGGAGATCGCGGCACTGCACTGCAGCCTGGGGACAGAGCGTGACTCCGTCAAAAAAAAAATAAAAA	295
Ni34	AGCTAGCANNAGAGCGGAGATCGCGGCACTGCNNTGCAGCCTGGGGACANAACGTGACTCCGTCAAAAAAAAAATAAAA	330
Ni26	AGCTAGCAGTGAGCGGAGATCGCGGCACTGCACTGCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	400
Ni29	AGCTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGNGAGACTCCGTCTCAAATAAAAAAAAAA	330
Ni32	AGCTTGCATTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	330
Ni30	AGCTTGCAGTGANC CGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	330
Ni42	AGCTTGCAGTGAGCCGAGATCACGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	339
Ni27	AGCTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	330
Ni28	AGCTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA	400

D . Alignment of the recovered complex chimera from 10%AARP treated with 100µM NiCl₂ is shown.

Majority	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGGCCTGTAATGCCAGCACTTAGGGAGGCCGXGGCGG	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
Alu2 10%	-----GGCCGGGCGCGGTGGCTCAGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	55
Alu1 10%	-----GGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTAGGGAGGCCGTGGCG	55
Ni31	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTGGGAGGCCGAGGCCG	90
Ni35	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTAGGGAGGCCGTGGCG	160
Ni36	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTAGGGAGGCCGTGGCG	90
Ni37	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATCCAGCACTTGGGAGGCCGAGGCCG	90
Ni38	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATCCAGCACTTAGGGAGGCCGAGGCCG	90
Ni33	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTAGGGAGGCCGAGGCCG	90
Ni39	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTAGGGAGGCCGTGGCGT	121
Ni40	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTGGGAGGCCGAGGCCG	121
Ni41	CAGGCTTGGTACCGAGAAGCTTAAAGGCCGGGCGTGGTGGCTCAGCCTGTAATGCCAGCACTTAGGGAGGCCGTGGCG	121

Majority GCGGXTCACGAGGT XAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCXGTCTCTACTATAAAATACAAAAATTA
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 170 180 190 200 210 220 230 240
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 Alu2 10% GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA AATTA 135
 Alu1 10% GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA TAATTA 135
 Ni31 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA AATTA 170
 Ni35 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA TAATTA 240
 Ni36 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA AATTA 170
 Ni37 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA TAATTA 170
 Ni38 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA AATTA 170
 Ni33 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA TAATTA 170
 Ni39 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA AATTA 201
 Ni40 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAAATACAAA AATTA 201
 Ni41 GCGGATCACGAGGT CAGGAGATCGAGACAATCCTGGCTAACACGCTGAAACCCCGTCTCTACTATAAGATACAAA TAATTA 201

Majority GCCGCGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGG
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 250 260 270 280 290 300 310 320
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 Alu2 10% GCCGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGG 215
 Alu1 10% GCCGCGCGTGGTGGCGGGCGCCTGAAGTCCCAGCAACTCGGGAGCCTGAGGCAGCAGAATTGCGAGAACCCGGGTGGCGG 215
 Ni31 GCCGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGCAGAATTGCGTGAACCCGGGAGGCGG 250
 Ni35 GCCGCGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCCGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGG 320
 Ni36 GCCGCGCGTGGTGGCGGGCGCCTGAAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGG 250
 Ni37 GCCGCGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGG 250
 Ni38 GCCGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGG 250
 Ni33 GCCGCGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCGTGAACCCGGGAGGCGG 250
 Ni39 GCCGCGCGTGGTGGCGGGCGCCTGAAGTCCCAGCTACTCGGGAGCCTGAGGCAGCAGAATTGCGAGAACCCGGGTGGCGG 281
 Ni40 GCCGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGCANAATTGCGAGAACCCGGGTGGCGG 281
 Ni41 GCCGCGCGTGGTGGCGGGCGCCTGAAGTCCCAGCAACTCGGGAGCCTGAGGCAGGAGAATTGCGTGAACCCGGGTGGCGG 281

Majority AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 330 340 350 360 370 380 390 400
 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 Alu2 10% AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 295
 Alu1 10% AGCTAGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGTACTCCGTCTCAAAAAAAAAAAAAA 295
 Ni31 AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 330
 Ni35 AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 400
 Ni36 AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 330
 Ni37 AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACACAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 330
 Ni38 AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 330
 Ni33 AGCTTGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACACAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 330
 Ni39 AGCTAGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 361
 Ni40 AGCTAGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 361
 Ni41 AGCTAGCAGTGAGCCGAGATCGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAA 361