Supplemental Table 1: BKPyV NCCR sequences

Name	Sequence 5'->3'
ww(1.4)	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAAC TGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-1	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGA**AA**CA**T**A**TC**C**AT**CCT**A**GGC**A**TCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-2	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAG**TT**A**T**GAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-4a	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACC**GATA**CCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-4b	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATA**A**TGA**C**AC**TT**CGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-4 5CG	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCC**G**GCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-4 5CG/10CT	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCC**G**GCCC**T**TGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-4 10CT	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT

	GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCC**T**TGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-4 *7CG/10CT*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCG**G**CC**T**TGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
*sp1-1** *sp1-4a*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGA**AA**CA**T**A**TC**C**AT**CCT**A**GGC**A**TCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACC**GATA**CCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAA ACTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
*sp1-2** *sp1-4a*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAG**TT**A**T**GAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACC**TATT**CCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAA ACTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
*sp1-2** *ets1-2*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAG**TT**A**T**GAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAA**TATT**AAGTGGAA ACTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
*sp1-4** *ets1-2*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACC**GATA**CCCTGAAATTCTCAAATAAACACAA**TATT**AAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
sp1-(1,2,4a)	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGA**AA**CA**T**A**TC**C**AT**CCT**A**GGC**A**TCTTATATATTATAAAAAAAAAGGCCACAG**TT**A**T**GAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCT CAGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACC**GATA**CCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGA AACTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
*yy1*sp1-2*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAG**TT**A**T**GAGCTGCTTAC**TGC**TGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
nf1-1	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCAT**A**GAATGCAG**T**C**T**AACCATGACCTC

	AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
nf1-2	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGA**ACAT**GCA**ATAC**GCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
nf1-3	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGT**A**GAAA CTGG**T**C**T**AAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
nf1-4	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAAC TGGCCAAAGGAGT**TT**A**C**A**T**CAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
nf1-5	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAAC TGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTT**A**GC**A**TTGTC**T**CCAGTTAAACTGGACAAAGGCC
nf1-(1,3,5)	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCAT**A**GAATGCAG**T**C**T**AACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGT**A**GAA ACTGG**T**C**T**AAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTT**A**GC**A**TTGTC**T**CCAGTTAAACTGGACAAAGGCC
*yy1*nf1-1*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTAC**TGC**T**A**GAATGCAG**T**C**T**AAACCATGACCT CAGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAA ACTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
ets1-2	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAA**TATT**AAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
ets1-2 *15.10*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAA**C**AGGAAGTGGAAAC

	TGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
ets1-2 HI-u6/CAP-m5	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGG**G**AGTGGAAAC TGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
p53	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAAC TGGCCAAA GGAGTGGAAAGCAGCCAGACA**TA**A**C**TT**TC**TTGCGGGCCTAGGAATCTTGGCCTT GTCCCCAGTTAAACTGGACAAAGGCC
yy1	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTAC**TGC**TGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
ltag1-2	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAG**TG**C**C**CAGAAAAA**TG**C**C**CCACACCCTTACTACTTGAGAGAAAGGG TGGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
ltag3-4	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGG**TAG**CGG**TAG**CTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAATTCTCAAATAAACACAAGAGGAAGTGGAAA CTGGCCAAAGGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
R8-18	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTCA GGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAAACACAAGAGGAAGTGGAAACTGGCCAAAGGA GTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
R8-18 sp1-(1,2,4a)*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGA**AA**CA**T**A**TC**C**AT**CCT**A**GGC**A**TCTTATATATTATAAAAAAAAAGGCCACAG**TT**A**T**GAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCT CAGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACC**GATA**CCCTGAAAACACAAGAGGAAGTGGAAACTGGCCAAA GGAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
R8-18 nf1-(1,3,5)*	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCAT**A**GAATGCAG**T**C**T**AACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAAACACAAGAGGAAGT**A**GAAACTGG**T**C**T**AAG GAGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTT**A**GC**A**TTGTC**T**CCAGTTAAACTGGACAAAGGCC

R8-18 ltag1-2	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAG**TG**C**C**CAGAAAAA**TG**C**C**CCACACCCTTACTACTTGAGAGAAAGGG TGGAGGCAGAGGCGGCCTCGGCCTCTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAAACACAAGAGGAAGTGGAAACTGGCCAAAGG AGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC
R8-18 ltag3-4	TTTTGCAAAAATTGCAAAAGAATAGGGATTTCCCCCAAATAGTTTTGCTAGGCCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGAGAAAGGGT GGAGGCAGAGGCGG**TAG**CGG**TAG**CTTATATATTATAAAAAAAAAGGCCACAGGGAGGAGCTGCTTACCCATGGAATGCAGCCAAACCATGACCTC AGGAAGGAAAGTGCATGACTGGGCAGCCAGCCAGTGGCAGTTAATAGTGAAACCCCGCCCCTGAAAACACAAGAGGAAGTGGAAACTGGCCAAAGG AGTGGAAAGCAGCCAGACAGACATGTTTTGCGGGCCTAGGAATCTTGGCCTTGTCCCCAGTTAAACTGGACAAAGGCC