OMTN, Volume *19*

Supplemental Information

Correction of the *aprt* Gene Using Repair-Polypurine Reverse Hoogsteen Hairpins in Mammalian Cells

Alex J. Félix, Carlos J. Ciudad, and Véronique Noé

Table S1. *aprt*-deficient CHO mutant cell lines subjected to correction with repair-PPRHs.

Cell line	**Position**	**Mutation (5'-3')**	**Codon change**	**Reference**
S23	+93 (exon 1)	GAA > TAA	Glutamic acid > Ochre in place	Phear et al.[1]
S62	+1968 (exon 5)	GGA > TGA	Glycine > Opal in place	
S1	+397 (exon 2)	TAC > TAG	Tyrosine > Amber in place	

Position numbers refer to the transcription start site. Point mutations are underlined in their position within the codon.

Table S2. Oligodeoxynucleotides used in this work.

Name	Length (nt)	Sequence (5'->3')
HpS23E1rep	100	CGCGGCTATGGCG**G**AATCTGAGTTGCAGCTGGTGGCGCAGCGCATCCGCAGAAAGGGGCTGAA GGGGTAGGGGTTTTTGGGGATGGGGAAGTCGGGGAAA
HpS62E5rep	100	TGTGTGAGCCTGGTGGAGCTGACCTCACTTAAGGGCAGAGAGAAGCTA**G**GATCAGTAGGTAAG AAGAGAGAGGACGTTTTTGCAGGAGAGAGAAGAATGG
HpS1E2rep	100	CGACTA**C**ATCGCAGGCGAGTGGCCATGCCAGGCCGTGCTGGTCCCCCACTGTGCAGGGAGGGG AGGGAAGGGAATATTTTTATAAGGGAAGGGAGGGGAG
LD-HpS1E2rep	100	CCACGCATGGCGGCAAGATCGACTA**C**ATCGCAGGCGAGTGGCCATGCCAGGCttttGAGGGGAGG GAAGGGAATATTTTTATAAGGGAAGGGAGGGGAG
RD-S23E1rep	51	CGCGGCTATGGCG**G**AATCTGAGTTGCAGCTGGTGGCGCAGCGCATCCGCAG
RD-S62E5rep	57	TGTGTGAGCCTGGTGGAGCTGACCTCACTTAAGGGCAGAGAGAAGCTA**G**GATCAGTA
RD-S1E2rep	57	CGACTA**C**ATCGCAGGCGAGTGGCCATGCCAGGCCGTGCTGGTCCCCCACTGTGCAGG
HpS23E1-core	49	AAAGGGGCTGAAGGGGTAGGGGTTTTTGGGGATGGGGAAGTCGGGGAAA
O-16	16	CCCCGACTTCCCCATC
O-40	40	GCAGCGCATCCGCAGTTTCCCCGACTTCCCCATCCCCGGC
O-60	60	TCTGAGTTGCAGCTGGTGGCGCAGCGCATCCGCAGTTTCCCCGACTTCCCCATCCCCGGC
Hp-core-Sc	53	AAGGAAGGAAGGAAGGAAGGAAGGTTTTTGGAAGGAAGGAAGGAAGGAAGGAA
RD-Sc	46	TAGTTAATAATTGTAGTACTTACTCTGGGAGAAGTTTATATTTCTC
Hp-rep-Sc	95	CTGCGGATGCGCTGCGCCACCAGCTGCAACTCAGATTCCGCCATAGCCGCGTGCACGAGAAAGG GCGGAGGGATTTTTAGGGAGGCGGGAAAGAG
HpS23E1rep-Sc	104	CGCGGCTATGGCG**G**AATCTGAGTTGCAGCTGGTGGCGCAGCGCATCCGCAGAAGGAAGGAAGG AAGGAAGGAAGGTTTTTGGAAGGAAGGAAGGAAGGAAGGAA

The name, length and sequence of each oligonucleotide are indicated. The corrected nucleotide is underlined. Abbreviations are: Hp, hairpin; LD, long-distance repair-PPRH; RD, repair domain; Sc, scramble sequence. In the case of the long-distance repair-PPRH sequence (LD-HpS1E2rep), the additional five-thymidine loop between the repair domain and the hairpin core is represented in lower case.

References

1. Phear, G, Armstrong, W and Meuth, M (1989). Molecular basis of spontaneous mutation at the aprt locus of hamster cells. *J. Mol. Biol.* **209**: 577–582.