

S6. The sectoring assay in parental DLD-1 cells.

Legends:								Viral	Sectored	Genomic
NdeI	EcoRI	LHP	NcoI	AseI	SspI	SacI	RHP	XbaI	SbfI	Sectored
-	+/-	+	+	+	+	+/-	+	+	-	2
-	+/-	+	+	+	+	+/-	+	-	-	2
-	+/-	+	+	+	+	+/-	+/-	+/-	-	2
-	+/-	+	+	+	-	+/-	+/-	+/-	-	2
-	+/-	+	+/-	+	+	+	+	+	-	2
-	+/-	+	+/-	+	+	+	+/-	-	-	2
-	+/-	+	+/-	+	+	+/-	+	+	-	2
-	+/-	+	+/-	+	+	+/-	+/-	+/-	+/-	2
-	+/-	+	+/-	+	+	+/-	-	+	-	2
-	+/-	+	+/-	+	+	+/-	-	-	-	2
-	+/-	+	+/-	+	+	-	+	+/-	-	2
-	+/-	+/-	+/-	+	+	+/-	+/-	+	-	2
-	+/-	+/-	+/-	+	+	+/-	-	+/-	-	2
-	+/-	+/-	+/-	+	+	+/-	-	-	-	2
-	+/-	+/-	+/-	+	+	+/-	-	-	-	2
-	+/-	-	+	+	+	+/-	-	+	-	2
-	+/-	-	+/-	+	+	+/-	+	+	-	2
-	+/-	-	+/-	+	+	+/-	-	-	-	2
-	+/-	-	+/-	+	+/-	+	+	+	-	2
-	-	+/-	+/-	+	+/-	+/-	-	-	-	2
-	-	-	+/-	+	+	+	+	+/-	-	2
-	-	-	+/-	+	+	+	+	+/-	-	2
-	-	-	+/-	+	+	+/-	+	+/-	-	2
-	-	-	+/-	+	+	+/-	+/-	+/-	-	2
-	-	-	+/-	+	+	+/-	-	-	-	2
+/-	+	-	+	+	+	+	+	+	+	1
+/-	+/-	+	+	+	+	+	+	-	-	1
-	+/-	+	+/-	+	+	-	+	-	-	1
-	+/-	+/-	+/-	+	+	+	+	-	-	1
-	+/-	+/-	+/-	+	+	-	-	-	-	1
-	-	+/-	+/-	+	+	-	-	-	-	1
-	-	-	+/-	-	-	-	-	-	-	1
+	+	+	+	+	+	+	+	+/-	-	1
+	+	+	+	+	-	+/-	+	+/-	-	1
-	+	+	+	+	+	+/-	-	-	+/-	1
-	+	+	+	+	+	+/-	-	-	-	1
-	-	+	+	+	+	+/-	+/-	-	-	1
-	-	+	+	+	+	+/-	-	-	-	1
-	-	-	-	+	+	+/-	-	-	-	1
-	-	-	-	+	+	+	-	-	-	0
-	-	+	+	+	+	+	-	-	-	0
-	-	+	-	+	+	+	+	-	-	0
-	-	-	-	+	+	+	+	+	-	0
-	-	-	-	-	+	+	-	-	-	0
2	25	10*	27	0	2	25	8	12	2	41
4.35%	54.35%	21.74%	58.70%	0.00%	4.35%	54.35%	17.39%	26.09%	4.35%	89.13%

Note: The hairpins are composed of 3-4 clustered mismatches. In the LHP, the genomic sequence CcagcTAcG basepairs with TcagcCTcC in the virus, whereas in RHP, TAc basepairs with ATG. These hairpins are sectored at a significantly lower frequency compared to the flanking SNPs in DLD-1 but not HCT116 cell line. Also in DLD-1, the TAcG/CTcC mismatch cluster in the LHP is sectored in only 3 clones, compared to the singular T/C mismatch which is sectored in 10 clones\*. These results indicate that the DLD-1 cell line can resolve clustered mismatches that can form short mismatch loops via the MSH2/MSH3 pathway, whereas the HCT116 cell line is deficient in both single