

**Supplemental Table 1. Effect of deleting Paf1 complex-encoding genes on dGCR rates.**

<i>Genotype</i>	Wild-type <i>CDC73</i>		<i>yku80Δ Mutation</i>		<i>tel1Δ Mutation</i>	
	<i>RDKY</i>	<i>Can<sup>R</sup> 5FOA<sup>R</sup> Rate<sup>†</sup></i>	<i>RDKY</i>	<i>Can<sup>R</sup> 5FOA<sup>R</sup> Rate<sup>†</sup></i>	<i>RDKY</i>	<i>Can<sup>R</sup> 5FOA<sup>R</sup> Rate<sup>†</sup></i>
Wild-type	7635	8.1 [6.4-15] x 10 <sup>-8</sup> (1)	8339	3.29 [1.5-10] x 10 <sup>-7</sup> (4.1)	8340	3.38 [2.0-4.9] x 10 <sup>-7</sup> (4.2)
<i>cdc73Δ</i>	7986	7.54 [3.5-22] x 10 <sup>-7</sup> (9.3)	8323	1.31 [0.7-3.4] x 10 <sup>-5</sup> (162)	8324	1.91 [0.7-3.3] x 10 <sup>-5</sup> (236)
<i>paf1Δ</i>	7990	1.77 [0.8-2.3] x 10 <sup>-6</sup> (22)	8325	1.85 [0.5-56] x 10 <sup>-5</sup> (228)	8326	2.11 [0.3-3.8] x 10 <sup>-5</sup> (261)
<i>ctr9Δ</i>	8063	6.94 [3.4-11] x 10 <sup>-7</sup> (8.6)	8327	3.67 [0.6-5.8] x 10 <sup>-6</sup> (45)	8328	5.78 [1.9-11] x 10 <sup>-6</sup> (71)
<i>rtf1Δ</i>	7988	3.12 [0.4-14] x 10 <sup>-7</sup> (3.8)	8329	8.43 [3.0-13] x 10 <sup>-7</sup> (10)	8330	8.73 [6.1-49] x 10 <sup>-8</sup> (1.1)
<i>leo1Δ</i>	8061	3.17 [2.3-9.7] x 10 <sup>-7</sup> (3.9)	8331	3.75 [2.8-4.5] x 10 <sup>-7</sup> (4.6)	8332	2.55 [1.4-3.2] x 10 <sup>-7</sup> (3.2)

<sup>†</sup>Rate of accumulating Can<sup>R</sup> 5FOA<sup>R</sup> progeny. The numbers in square brackets [ ] are the 95% confidence interval limits. The number in parenthesis ( ) is the fold increase relative to the wild-type dGCR assay.