

TABLE 9

HPRT⁻ segregation rates in prototype pseudohexaploid cell lines

Genetic constitution:	$\frac{hprt^A \ g6pd^+}{hprt^B \ g6pd^T}$		$\frac{hprt^A \ g6pd^+}{hprt^B \ g6pd^T}$	
	$\frac{hprt^B \ g6pd^T}{HPRT^- \ G6PD^- \quad HPRT^- \ G6PD^+}$		$\frac{HPRT^- \ G6PD^- \quad HPRT^- \ G6PD^+}{HPRT^- \ G6PD^- \quad HPRT^- \ G6PD^+}$	
Segregant phenotype:	HPRT ⁻ G6PD ⁻	HPRT ⁻ G6PD ⁺	HPRT ⁻ G6PD ⁻	HPRT ⁻ G6PD ⁺
No. of cultures†	24		24	
No. cell challenged/sample	9.6×10 ³		1.6×10 ⁴	
Median No. segregants/sample	89.5	—	27	20.5
Mean No. segregants/sample	123	0.08	42.1	44.7
Variance	9948	0.07‡	1587	4966
Average frequency of segregants	129×10 ⁻⁴	0.09×10 ⁻⁴	26.1×10 ⁻⁴	27.8×10 ⁻⁴
Segregation rate by median method	21.9×10 ⁻⁴	—	5.0×10 ⁻⁴	4.1×10 ⁻⁴
Segregation rate by LURIA- DELBRUCK (1943), eq. (8)	20.3×10 ⁻⁴	0.09×10 ⁻⁴	4.8×10 ⁻⁴	5.1×10 ⁻⁴

* HPRT⁻ segregants were selected in 0.07 mM 6-thioguanine.

† Each culture contained 1.2 times the number of cells per sample.

‡ This value is not corrected for sampling variance since the small number of colonies detected (2) does not allow distinction between sampling variance and variance due to chance distribution of mutations.