

**Supplemental Table 4** *P*-values obtained with the Mann-Whitney U-test for the SNP frequency in regions with a high density of 8-oxoG vs. SNP frequency in regions without a high density of 8-oxoG (SNP data from shotgun sequencing).

SNP Spectrum Chromosome	G/T	A/C	A/G	C/T	C/G	A/T	TOTAL
Chr1	0.9222(NS)	0.1986(NS)	0.7493(NS)	0.7039(NS)	0.6474(NS)	0.1674(NS)	0.8782(NS)
Chr2	0.1650(NS)	0.0095*	0.0014*	0.0208*	0.0350*	0.0013*	0.0140*
Chr3	0.0030*	0.0001*	<0.0001*	0.0004*	<0.0001*	0.7388(NS)	<0.0001*
Chr4	0.0139*	0.4168(NS)	0.6848(NS)	0.5533(NS)	0.3089(NS)	0.1801(NS)	0.7488(NS)
Chr5	0.6816(NS)	0.4568(NS)	0.6914(NS)	0.0159*	0.0304*	0.5295(NS)	0.3301(NS)
Chr7	0.5612(NS)	0.0342**	0.0969(NS)	0.0694(NS)	0.0020*	<0.0001**	0.3593(NS)
Chr8	0.2409(NS)	0.0235*	0.0173*	0.3874(NS)	<0.0001*	0.4536(NS)	0.0832(NS)
Chr9	<0.0001*	<0.0001*	<0.0001*	<0.0001*	<0.0001*	<0.0001*	<0.0001*
Chr10	<0.0001**	<0.0001**	<0.0001**	<0.0001**	<0.0001**	<0.0001**	<0.0001**
Chr11	0.0271*	0.5677(NS)	0.1330(NS)	0.0875(NS)	0.0034*	0.1843(NS)	0.0768(NS)
Chr12	0.2264(NS)	0.0031*	0.0184*	0.1764(NS)	0.0063*	0.2565(NS)	0.0551(NS)
Total	0.0184*	0.1952 (NS)	0.0004*	0.0003*	<0.0001*	0.0006**	0.0011*

The SNP frequency was calculated using the data from shotgun sequencing ( The SNP Consortium, <http://snp.cshl.org/cgi-bin/protocol>, TSCM00001, TSCM00005, TSCM00012, TSCM00014, TSCM00019, TSCM00023, TSCM00027, TSCM00028). The Mann-Whitney U-test was performed using the total data of chromosomes 1 to 5, and 7 to 12. Centromeric regions of all chromosomes and constitutive heterochromatin regions of chromosomes 1 and 9 were excluded from the calculation because of no available SNP data. Since sequence data on other chromosomes were insufficient or their chromosomal length were different from the recent genome data that we used, they were excluded from this analysis.

\*The average value of SNP frequency in regions with a high density of 8-oxoG is higher than that in regions without a high density of 8-oxoG.

\*\*The average value of SNP frequency in regions with a high density of 8-oxoG is lower than that in regions without a high density of 8-oxoG.

NS : not significant.