

Table 1. Benzo[a]pyrene-induced 6-TG^R in wild-type, *Xpa*^{-/-}, *Polk*^{+/+}, and *Polk*^{-/-} ES cells

| Cell type | B[a]P, μM | Total cells, 10^6 | 6-TG ^R colonies | MF,* 10^{-6} | Average, [†] 10^{-6} |
|-------------------------------------|----------------------|---------------------|----------------------------|----------------|---------------------------------|
| Wild type (TT2) | 0 | 2.00 | 0 | < 0.499 | ND |
| | 0.5 | 2.60 | 0 | < 0.385 | ND |
| | 5 | 1.06 | 3 | 2.83 | 6.7 \pm 6.3 |
| | 10 | 6.41 | 83 | 13.0 | 15.0 \pm 0.8 |
| <i>Polk</i> ^{+/-} (no. 48) | 0 | 1.56 | 0 | < 0.641 | ND |
| | 0.5 | 1.57 | 0 | < 0.638 | ND |
| | 5 | 1.17 | 2 | 1.71 | 1.5 \pm 2.1 |
| | 10 | 1.10 | 11 | 10.0 | 12.7 \pm 4.7 |
| <i>Polk</i> ^{-/-} (A71) | 0 | 2.23 | 0 | < 0.449 | ND |
| | 0.5 | 1.24 | 4 | 3.24 | 6.2 \pm 4.9 |
| | 5 | 1.99 | 9 | 4.52 | 7.7 \pm 3.9 |
| | 10 | 0.94 | 160 | 170 | 232 \pm 123 |
| <i>Polk</i> ^{-/-} (A72) | 0 | 1.31 | 0 | < 0.765 | ND |
| | 0.5 | 1.16 | 3 | 2.60 | 2.9 \pm 1.0 |
| | 5 | 1.19 | 12 | 10.1 | 10.8 \pm 2.3 |
| | 10 | 0.68 | 65 | 95.6 | 123 \pm 69 |
| Wild type (F1/1) | 0 | 1.86 | 1 | 0.538 | 0.33 \pm 0.47 |
| | 0.5 | 1.73 | 0 | < 0.577 | ND |
| | 5 | 1.20 | 1 | 0.831 | 1.8 \pm 2.5 |
| | 10 | 1.09 | 13 | 11.9 | 14.7 \pm 5.8 |
| <i>Xpa</i> ^{-/-} (176-20) | 0 | 1.16 | 7 | 6.06 | 6.9 \pm 2.5 |
| | 0.5 | 0.71 | 95 | 133 | 132 \pm 42 |
| | 5 | 0.82 | 141 | 172 | 182 \pm 109 |
| | 10 | 0.57 | 120 | 209 | 211 \pm 74 |

ND, not determined.

*MF, mutant frequency; the number of 6-TG^R colonies was divided by the number of cells plated (sum of three experiments).

†Average mutant frequency; the average and standard error was calculated from three independent experiments.