**Mutagenicity of water samples in strain TA100 of *Salmonella*a**

Data are expressed as revertants (rev/) per plate in the presence of absence of S9, which is the supernatant of a 9,000 x *g* centrifugation of homogenized rat liver plus cofactors to provide some mammalian metabolism to the bacteria. The slope (rev/L-eq) was generated from the linear portion of the dose-response curve determined by the rev/plate versus dose (L-equivalent/plate). These data and details of the sample preparation and data analyses are in the published paper, which is Open Access and freely available to anyone with an Internet connection.

|  |  | **Rev/plate** | | | | **Mean slope ± SE** |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Dose** | **-S9** | | **+S9** | | **(Rev/L-eq)** |
| **Sample and Collection Date** | **(L-eq/plate)** | **Exp 1** | **Exp 2** | **Exp 3** | |  |
| 1-Raw 9-15-11b | 0 | 112 | 151 | 128 | |  |
|  | 0.001 | 113 | 146 | 109 | |  |
|  | 0.005 | 115 | 135 | 130 | |  |
|  | 0.01 | 123 | 126 | 140 | |  |
|  | 0.05 | 110 | 123 | 138 | |  |
|  | 0.1 | 103 | 131 | 156 | |  |
|  | 0.2 | 130 | 146 | 166 | |  |
|  | 0.3 | 119 | 127 | 148 | |  |
|  | 0.5 | 120 | 156 | 161 | |  |
|  | 1.0 | 111 | 125 | 147 | |  |
|  |  |  |  | | | 0 (-S9), 0 (+S9) |
|  |  |  |  | | |  |
| 1-Cl Finished 9-15-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 116 |  | | |  |
|  | 0.005 | 104 |  | | |  |
|  | 0.01 | 112 |  | | |  |
|  | 0.05 | 107 |  | | |  |
|  | 0.1 | 120 | 178 | | |  |
|  | 0.2 | 145 | 201 | | |  |
|  | 0.3 | 149 | 271 | | |  |
|  | 0.5 | 299 | 336 | | |  |
|  | 1.0 | 345 | 577 | | |  |
|  |  |  |  | | | 356.0 ± 43.0 |
|  |  |  |  | | |  |
| 1-Cl Tap 9-16-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 93 |  | | |  |
|  | 0.005 | 98 |  | | |  |
|  | 0.01 | 104 |  | | |  |
|  | 0.05 | 120 |  | | |  |
|  | 0.1 | 154 | 196 | | |  |
|  | 0.2 | 160 | 230 | | |  |
|  | 0.3 | 199 | 334 | | |  |
|  | 0.5 | 315 | 433 | | |  |
|  | 1.0 | 614 | 703 | | |  |
|  |  |  |  | | | 547.5 ± 34.5 |
|  |  |  |  | | |  |
| 1-Cl Average Use Pool 9-16-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 95 |  | | |  |
|  | 0.005 | 112 |  | | |  |
|  | 0.01 | 123 |  | | |  |
|  | 0.05 | 150 |  | | |  |
|  | 0.1 | 130 | 187 | | |  |
|  | 0.2 | 165 | 242 | | |  |
|  | 0.3 | 197 | 280 | | |  |
|  | 0.5 | 294 | 392 | | |  |
|  | 1.0 | 496 | 596 | | |  |
|  |  |  |  | | | 430.5 ± 29.5 |
|  |  |  |  | | |  |
| 1-Cl Clean Pool 1-3-12 | 0 | 105 | 103 | | |  |
|  | 0.001 | 102 |  | | |  |
|  | 0.005 | 105 |  | | |  |
|  | 0.01 | 85 | 100 | | |  |
|  | 0.05 | 144 | 136 | | |  |
|  | 0.1 | 189 | 186 | | |  |
|  | 0.2 | 230 | 310 | | |  |
|  | 0.3 | 390 | 422 | | |  |
|  |  |  |  | | | 993.9 ± 55.4 |
|  |  |  |  | | |  |
| 1-Cl Heavily Used Pool 11-2-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 117 |  | | |  |
|  | 0.005 | 140 |  | | |  |
|  | 0.01 | 123 |  | | |  |
|  | 0.05 | 316 |  | | |  |
|  | 0.1 | 170 | 277 | | |  |
|  | 0.2 | 231 | 410 | | |  |
|  | 0.3 | 452 | 634 | | |  |
|  | 0.5 | 637 | 821 | | |  |
|  |  |  |  | | | 1208.3 ± 129.9 |
|  |  |  |  | | |  |
| 1-Cl Clean Spa 9-17-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 86 |  | | |  |
|  | 0.005 | 100 |  | | |  |
|  | 0.01 | 104 |  | | |  |
|  | 0.05 | 128 |  | | |  |
|  | 0.1 | 158 | 217 | | |  |
|  | 0.2 | 273 | 309 | | |  |
|  | 0.3 | 314 | 510 | | |  |
|  | 0.5 | 470 | 720 | | |  |
|  |  |  |  | | | 993.2 ± 107.0 |
|  |  |  |  | | |  |
| 1-Cl Heavily Used Spa 11-2-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 118 |  | | |  |
|  | 0.005 | 123 |  | | |  |
|  | 0.01 | 94 |  | | |  |
|  | 0.05 | 209 | 279 | | |  |
|  | 0.1 | 355 | 461 | | |  |
|  | 0.2 | 589 | 863 | | |  |
|  |  |  |  | | | 3071.7 ± 308.6 |
|  |  |  |  | | |  |
| 2-Raw 11-15-11b | 0 | 108 | 151 | | 128 |  |
|  | 0.001 | 122 | 132 | | 140 |  |
|  | 0.005 | 104 | 129 | | 143 |  |
|  | 0.01 | 107 | 110 | | 157 |  |
|  | 0.05 | 99 | 132 | | 136 |  |
|  | 0.1 | 110 | 117 | | 124 |  |
|  | 0.2 | 107 | 137 | | 137 |  |
|  | 0.3 | 114 | 143 | | 157 |  |
|  | 0.5 | 132 | 156 | | 147 |  |
|  | 1.0 | 158 | 212 | | 161 |  |
|  |  |  |  | | | 0 (-S9), 0 (+S9) |
|  |  |  |  | | |  |
| 2-Cl Finished 11-15-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 96 |  | | |  |
|  | 0.005 | 110 |  | | |  |
|  | 0.01 | 107 |  | | |  |
|  | 0.05 | 150 | 214 | | |  |
|  | 0.1 | 179 | 234 | | |  |
|  | 0.2 | 261 | 310 | | |  |
|  | 0.3 | 382 | 474 | | |  |
|  | 0.5 | 589 | 714 | | |  |
|  | 1.0 | 872 | 1137 | | |  |
|  |  |  |  | | | 915.2 ± 52.5 |
|  |  |  |  | | |  |
| 2-Cl Tap 11-16-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 120 |  | | |  |
|  | 0.005 | 110 |  | | |  |
|  | 0.01 | 121 | 137 | | |  |
|  | 0.05 |  | 191 | | |  |
|  | 0.1 |  | 244 | | |  |
|  | 0.2 | 328 | 362 | | |  |
|  | 0.3 | 381 | 489 | | |  |
|  | 0.5 | 623 | 743 | | |  |
|  | 1.0 | 951 |  | | |  |
|  |  |  |  | | | 907.2 ± 55.6 |
|  |  |  |  | | |  |
| 2-Br Average Use Pool 11-16-11 | 0 | 108 | 151 | | |  |
|  | 0.001 | 114 |  | | |  |
|  | 0.005 | 96 |  | | |  |
|  | 0.01 | 119 | 157 | | |  |
|  | 0.05 | 224 | 246 | | |  |
|  | 0.1 | 328 | 314 | | |  |
|  | 0.2 | 538 | 503 | | |  |
|  |  |  |  | | | 2021.5 ± 85.0 |
|  |  |  |  | | |  |
| 2-Br Average Use Spa 11-16-11 | 0 | 108 | 151 | | |  |
|  | 0.001 | 105 |  | | |  |
|  | 0.005 | 114 |  | | |  |
|  | 0.01 | 145 | 153 | | |  |
|  | 0.05 | 289 | 289 | | |  |
|  | 0.1 | 471 | 359 | | |  |
|  |  |  |  | | | 3038.5 ± 276.4 |
|  |  |  |  | | |  |
| 2-Br Clean Pool 1-5-12 | 0 | 105 | 103 | | |  |
|  | 0.001 | 122 | 124 | | |  |
|  | 0.005 | 128 | 117 | | |  |
|  | 0.01 | 122 | 95 | | |  |
|  | 0.05 | 140 | 151 | | |  |
|  | 0.1 | 172 | 189 | | |  |
|  | 0.2 | 400 | 335 | | |  |
|  | 0.3 | 544 | 451 | | |  |
|  | 0.5 | 735 | 608 | | |  |
|  |  |  |  | | | 1179.9 ± 57.9 |
|  |  |  |  | | |  |
| 2-Br Clean Spa 1-6-12 | 0 | 105 | 103 | | |  |
|  | 0.001 | 121 | 124 | | |  |
|  | 0.005 | 124 | 150 | | |  |
|  | 0.01 | 155 | 201 | | |  |
|  | 0.05 | 158 | 206 | | |  |
|  | 0.1 | 266 | 254 | | |  |
|  | 0.2 | 526 | 499 | | |  |
|  | 0.3 | 790 | 662 | | |  |
|  |  |  |  | | | 1984.4 ± 98.5 |
|  |  |  |  | | |  |
| 2-Br Heavily Used Spa 1-5-12 | 0 | 105 | 103 | | |  |
|  | 0.001 | 116 | 107 | | |  |
|  | 0.005 | 139 | 131 | | |  |
|  | 0.01 | 146 | 101 | | |  |
|  | 0.05 | 243 | 171 | | |  |
|  | 0.1 |  | 277 | | |  |
|  |  |  |  | | | 1725.6 ± 219.7 |
|  |  |  |  | | |  |
| 3-Cl Pool 10-21-11 | 0 | 112 | 151 | | |  |
|  | 0.05 | 169 | 175 | | |  |
|  | 0.1 | 201 | 253 | | |  |
|  | 0.2 | 278 | 415 | | |  |
|  | 0.3 | 365 | 472 | | |  |
|  | 0.5 | 596 | 740 | | |  |
|  | 1 | 919 |  | | |  |
|  |  |  |  | | | 854.2 ± 72.1 |
|  |  |  |  | | |  |
| 3-Cl Spa 10-21-11 | 0 | 112 | 151 | | |  |
|  | 0.001 | 121 |  | | |  |
|  | 0.005 | 113 |  | | |  |
|  | 0.01 | 110 |  | | |  |
|  | 0.05 | 139 | 247 | | |  |
|  | 0.1 | 214 | 346 | | |  |
|  | 0.2 | 225 | 516 | | |  |
|  | 0.3 | 418 | 692 | | |  |
|  |  |  |  | | | 1406.8 ± 243.7 |
|  |  |  |  | | |  |
| 4-Raw 11-8-11b | 0 | 108 | 151 | | 128 |  |
|  | 0.001 | 111 | 127 | | 156 |  |
|  | 0.005 | 95 | 145 | | 128 |  |
|  | 0.01 | 119 | 136 | | 118 |  |
|  | 0.05 | 115 | 130 | | 149 |  |
|  | 0.1 | 102 | 128 | | 135 |  |
|  | 0.2 | 112 | 121 | | 165 |  |
|  | 0.3 | 116 | 140 | | 180 |  |
|  | 0.5 | 127 | 123 | | 174 |  |
|  | 1.0 | 115 | 130 | | 163 |  |
|  |  |  |  | | | 0 (-S9), 0 (+S9) |
|  |  |  |  | | |  |
| 4-Cl Finished 11-8-11 | 0 | 108 | 151 | | |  |
|  | 0.001 | 88 |  | | |  |
|  | 0.005 | 97 |  | | |  |
|  | 0.01 | 102 |  | | |  |
|  | 0.05 | 98 |  | | |  |
|  | 0.1 | 120 | 147 | | |  |
|  | 0.2 | 184 | 182 | | |  |
|  | 0.3 | 195 | 227 | | |  |
|  | 0.5 | 237 | 253 | | |  |
|  | 1.0 | 343 | 371 | | |  |
|  |  |  |  | | | 254.1 ± 17.1 |
|  |  |  |  | | |  |
| 4-Cl Tap 11-9-11 | 0 | 108 | 151 | | |  |
|  | 0.001 | 144 |  | | |  |
|  | 0.005 | 121 |  | | |  |
|  | 0.01 | 115 |  | | |  |
|  | 0.05 | 120 |  | | |  |
|  | 0.1 | 159 | 161 | | |  |
|  | 0.2 | 171 | 177 | | |  |
|  | 0.3 | 215 | 275 | | |  |
|  | 0.5 | 274 | 300 | | |  |
|  |  |  |  | | | 337.4 ± 33.5 |
|  |  |  |  | | |  |
| 4-Cl Spa 11-9-11 | 0 | 108 | 151 | | |  |
|  | 0.001 | 133 |  | | |  |
|  | 0.005 | 103 |  | | |  |
|  | 0.01 | 113 |  | | |  |
|  | 0.05 | 128 |  | | |  |
|  | 0.1 | 139 | 147 | | |  |
|  | 0.2 | 185 | 182 | | |  |
|  | 0.3 | 217 | 238 | | |  |
|  | 0.5 | 254 | 342 | | |  |
|  | 1.0 | 430 | 525 | | |  |
|  |  |  |  | | | 361.3 ± 21.6 |
|  |  |  |  | | |  |
| 5-Cl Tap 2-7-12 | 0 | 105 | 103 | | |  |
|  | 0.001 | 123 | 116 | | |  |
|  | 0.005 | 125 | 115 | | |  |
|  | 0.01 | 100 | 92 | | |  |
|  | 0.05 | 115 | 126 | | |  |
|  | 0.1 | 147 | 106 | | |  |
|  | 0.2 | 203 | 176 | | |  |
|  | 0.3 | 231 | 256 | | |  |
|  | 0.5 | 420 | 345 | | |  |
|  | 1.0 | 590 | 485 | | |  |
|  |  |  |  | | | 453.0 ± 23.6 |
|  |  |  |  | | |  |
| 5-Br Spa 2-7-12 | 0 | 105 | 103 | | |  |
|  | 0.001 | 98 | 96 | | |  |
|  | 0.005 | 116 | 127 | | |  |
|  | 0.01 | 123 | 140 | | |  |
|  | 0.05 | 244 | 248 | | |  |
|  |  |  |  | | | 2894.6 ± 119.6 |
|  |  |  |  | | |  |
|  |  |  |  | | |  |
|  |  |  |  | | |  |
| 6-O3-Cl Tap 12-22-11 | 0 | 105 | 103 | | |  |
|  | 0.001 | 104 | 98 | | |  |
|  | 0.005 | 128 | 100 | | |  |
|  | 0.01 | 120 | 104 | | |  |
|  | 0.05 | 112 | 97 | | |  |
|  | 0.1 | 106 | 116 | | |  |
|  | 0.2 | 106 | 121 | | |  |
|  | 0.3 | 148 | 152 | | |  |
|  | 0.5 | 178 | 145 | | |  |
|  | 1.0 | 229 | 193 | | |  |
|  |  |  |  | | | 108.1 ± 9.6 |
|  |  |  |  | | |  |
| 6-O3-Cl Pool 12-22-11 | 0 | 105 | 103 | | |  |
|  | 0.001 | 129 | 86 | | |  |
|  | 0.005 | 105 | 107 | | |  |
|  | 0.01 | 119 | 99 | | |  |
|  | 0.05 | 164 | 175 | | |  |
|  | 0.1 | 260 | 150 | | |  |
|  | 0.2 | 295 | 287 | | |  |
|  | 0.3 | 513 | 520 | | |  |
|  | 0.5 | 811 |  | | |  |
|  |  |  |  | | | 1359.1 ± 65.9 |
|  |  |  |  | | |  |
| 7-Tap-Ground Water 12-20-11b | 0 | 105 | 103 | | |  |
|  | 0.001 | 124 | 113 | | |  |
|  | 0.005 | 112 | 118 | | |  |
|  | 0.01 | 110 | 95 | | |  |
|  | 0.05 | 110 | 93 | | |  |
|  | 0.1 | 90 | 88 | | |  |
|  | 0.2 | 98 | 99 | | |  |
|  | 0.3 | 114 | 126 | | |  |
|  | 0.5 | 100 | 110 | | |  |
|  | 1.0 | 128 | 90 | | |  |
|  |  |  |  | | | 0 |
|  |  |  |  | | |  |
| 7-O3 Spa 12-20-11b | 0 | 105 | 103 | | |  |
|  | 0.001 | 114 | 105 | | |  |
|  | 0.005 | 90 | 111 | | |  |
|  | 0.01 | 85 | 90 | | |  |
|  | 0.05 | 99 | 101 | | |  |
|  | 0.1 | 90 | 90 | | |  |
|  | 0.2 | 100 | 122 | | |  |
|  | 0.3 | 114 | 114 | | |  |
|  | 0.5 | 122 | 104 | | |  |
|  | 1.0 | 124 | 71 | | |  |
|  |  |  |  | | | 0 |

aFor controls (0 dose) 3 plates were used, and the average rev/plate is shown for these controls in the table. In the absence of S9 (-S9), the mean ± SE values for the DMSO and positive controls were: DMSO –S9 (12 plates) 117.9 ± 8.3, sodium azide at 3 µg/plate (10 plates) 674.7 ± 64.1. In the presence of S9 (S9), the mean ± SE values for the DMSO and positive controls were: DMSO +S9 (3 plates) 128.0 ± 7.4, 2-aminoanthracene at 0.5 µg/plate (2 plates) 885.0 ± 9.9. Medium and S9 were checked for sterility and ability to support production of the expected number of rev/plate for each strain. TA100 was checked for the presence of the pKM101 plasmid by showing growth in the presence of ampicillin. The cell-wall (deep rough) mutation was confirmed by the killing of cells in the presence of crystal violet. The DNA excision-repair mutation (*uvrB*) was confirmed by increased sensitivity to killing of the cells by uv light.

bThese samples did not produce a number of rev/plate that reached a twofold increase relative to the DMSO control. Thus, they were not mutagenic and were assigned mutagenic potency of 0 rev/L-eq.