**Suppl. Table 1.** Concentrations of 16 different cytotoxic substances that reduce urothelial cancer cell viability by 50% (IC50).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Gemcitabine | CDDP | Carboplatin | Paclitaxel |
| Cell line | IC50 (ng/mL) | IC50 (µg/mL) | IC50 (µg/mL) | IC50 (ng/mL) |
| RT112 | 1.35 ± 0.29 | 0.32 ± 0.01 | 7.00 ± 2.14 | 1.38 ± 0.52 |
| RT112rGEMCI20 | 98.94 ± 6.09 (73.28)\* | 0.96 ± 0.19(3.00) | 14.43 ± 5.27 (2.06) | 2.32 ± 0.75(1.68) |
| RT112rCDDP1000 | 2.04 ± 1.68(1.51) | 4.56 ± 0.29 (14.25) | 20.44 ± 8.52(2.92) | 2.24 ± 1.18(1.62) |
| TCC-SUP | 2.74 ± 0.69 | 0.07 ± 0.04 | 1.32 ± 0.45 | 2.66 ± 0.89 |
| TCC-SUPrGEMCI20 | 27.19 ± 3.99(9.92) | 0.17 ± 0.06(2.42) | 10.67 ± 1.35(8.08) | 12.23 ± 4.82(4.60) |
| TCC-SUPrCDDP1000 | 0.46 ± 0.06(0.17) | 2.02 ± 0.67(28.86) | 21.32 ± 3.48(16.15) | 2.16 ± 0.20(0.81) |
| T24 | 2.62 ± 0.75 | 0.16 ± 0.02 | 2.51 ± 1.04 | 2.57 ± 0.74 |
| T24rGEMCI20 | 35.10 ± 6.09 (13.39) | 0.60 ± 0.19(3.75) | 3.99 ± 1.17(1.59) | 5.69 ± 1.64(2.21) |
| T24rCDDP1000 | 1.50 ± 0.12(0.57) | 1.86 ± 0.62 (11.62) | 10.50 ± 2.34(4.18) | 3.26 ± 1.51(1.27) |
| 5637 | 0.88 ± 0.16 | 0.48 ± 0.10 | 5.13 ± 1.24 | 2.33 ± 0.57 |
| 5637rGEMCI20 | 25.22 ± 6.65(28.66) | 0.12 ± 0.01(0.25) | 2.44 ± 0.61(0.47) | 2.27 ± 1.04(0.97) |
| 5637rCDDP1000 | 0.96 ± 0.24(1.09) | 1.69 ± 0.57(3.52) | 14.21 ± 1.72(2.77) | 2.34 ± 0.83(1.00) |
| RT4 | 0.83 ± 0.14 | 0.50 ± 0.23 | 2.98 ± 0.55 | 2.60 ± 1.19 |
| RT4rGEMCI10 | 5.90 ± 1.10(7.11) | 0.66 ± 0.20(1.32) | 12.60 ± 2.32(4.23) | 2.33 ± 0.64(0.90) |
| RT4rCDDP1000 | 0.56 ± 0.14(0.67) | 1.86 ± 0.35(3.72) | 6.18 ± 2.79(2.07) | 0.78 ± 0.10(0.30) |
| HT1376 | 1.55 ± 0.89 | 0.81 ± 0.38 | 10.39 ± 2.44 | 2.26 ± 0.85 |
| HT1376rGEMCI20 | 37.19 ± 10.37(23.99) | 0.41 ± 0.13(0.51) | 4.00 ± 1.52(0.38) | 4.84 ± 1.99(2.14) |
| HT1376rCDDP1000 | 2.43 ± 0.36(1.57) | 2.25 ± 0.75(2.78) | 12.94 ± 3.28(1.25) | 2.81 ± 0.68(1.24) |

\*Resistance factor: IC50 of parental cell line/ resistant sub-line. Values are means ± SD. **Suppl. Table 1.** **(continued)** Concentrations of 16 different cytotoxic substances that reduce urothelial cancer cell viability by 50% (IC50).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Vinflunine | Cabazitaxel | Methotrexate | Oxaliplatin |
| Cell line | IC50 (ng/mL) | IC50 (ng/mL) | IC50 (ng/mL) | IC50 (µg/mL) |
| RT112 | 23.13 ± 5.59 | 0.13 ± 0.06 | 13.26 ± 3.52 | 1.10 ± 0.46 |
| RT112rGEMCI20 | 23.56 ± 8.66(1.01)\* | 0.37 ± 0.24(2.85) | 11.86 ± 4.30(0.89) | 2.02 ± 1.05(1.84) |
| RT112rCDDP1000 | 21.10 ± 4.13 (0.91) | 0.37 ± 0.12(2.85) | 8.85 ± 3.61(0.67) | 2.64 ± 1.06(2.40) |
| TCC-SUP | 18.08 ± 4.30 | 0.43 ± 0.19 | 2.36 ± 1.10 | 0.30 ± 0.12 |
| TCC-SUPrGEMCI20 | 62.18 ± 13.97(3.43) | 0.57 ± 0.12(1.33) | 18.95 ± 6.65(8.77) | 0.95 ± 0.53(3.17) |
| TCC-SUPrCDDP1000 | 15.83 ± 4.56(0.87) | 0.44 ± 0.11(1.02) | 2.36 ± 1.16(1.09) | 0.96 ± 0.41(3.20) |
| T24 | 23.13 ± 5.26 | 0.44 ± 0.12 | 3.62 ± 1.24 | 1.49 ± 0.66 |
| T24rGEMCI20 | 31.67 ± 10.95(1.37) | 0.65 ± 0.23(1.48) | 4.64 ± 1.64(1.28) | 1.41 ± 0.47(0.95) |
| T24rCDDP1000 | 14.54 ± 5.17(0.63) | 0.30 ± 0.08(0.68) | 7.55 ± 1.96(2.09) | 2.38 ± 1.21(1.60) |
| 5637 | 13.25 ± 1.57 | 0.47 ± 0.14 | 2.10 ± 0.67 | 0.91 ± 0.06 |
| 5637rGEMCI20 | 4.58 ± 1.51(0.34) | 0.35 ± 0.12(0.74) | 7.73 ± 1.27(3.68) | 1.64 ± 0.63(1.80) |
| 5637rCDDP1000 | 11.47 ± 3.93(0.87) | 0.26 ± 0.07(0.55) | 5.39 ± 1.53(2.31) | 1.53 ± 0.52(1.68) |
| RT4 | 11.62 ± 4.03 | 1.03 ± 0.31 | 20.03 ± 4.75 | 0.16 ± 0.06 |
| RT4rGEMCI10 | 8.14 ± 2.96(0.70) | 1.09 ± 0.12(1.06) | 7.28 ± 1.26(0.36) | 0.16 ± 0.06(1.00) |
| RT4rCDDP1000 | 11.27 ± 2.72(0.97) | 0.50 ± 0.28(0.49) | 10.66 ± 2.18(0.53) | 0.19 ± 0.12(1.19) |
| HT1376 | 13.82 ± 5.45 | 1.46 ± 0.78 | 371.15 ± 135.79 | 3.89 ± 0.79 |
| HT1376rGEMCI20 | 5.07 ± 4.28(0.37) | 2.06 ± 1.16(1.41) | 560.52 ± 150.99(1.51) | 2.56 ± 0.98(0.66) |
| HT1376rCDDP1000 | 8.49 ± 3.64(0.61) | 0.59 ± 0.22(0.40) | 370.99 ± 107.42(1.00) | 4.09 ± 0.85(1.05) |

\*Resistance factor: IC50 of parental cell line/ resistant sub-line. Values are means ± SD.

**Suppl. Table 1.** **(continued)** Concentrations of 16 different cytotoxic substances that reduce urothelial cancer cell viability by 50% (IC50).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Mitomycin C | 5-Fluorouracil | Doxorubicin | Pemetrexed |
| Cell line | IC50 (ng/mL) | IC50 (ng/mL) | IC50 (ng/mL) | IC50 (µM) |
| RT112 | 26.58 ± 5.50 | 259.47 ± 79.11 | 15.35 ± 2.88 | 0.07 ± 0.01 |
| RT112rGEMCI20 | 56.16 ± 4.13(2.11)\* | 476.66 ± 225.71(1.84) | 32.42 ± 10.35(2.11) | 0.07 ± 0.01(1.00) |
| RT112rCDDP1000 | 59.40 ± 16.20(2.23) | 252.45 ± 117.06(0.97) | 12.09 ± 2.46(0.79) | 0.07 ± 0.04(1.00) |
| TCC-SUP | 40.14 ± 26.08 | 148.94 ± 44.92 | 6.21 ± 0.90 | 0.05 ± 0.01 |
| TCC-SUPrGEMCI20 | 22.08 ± 9.51(0.55) | 142.64 ± 43.59(0.96) | 53.89 ± 46.39(8.67) | 0.12 ± 0.06(2.40) |
| TCC-SUPrCDDP1000 | 31.56 ± 12.71(0.79) | 100.42 ± 16.23(0.67) | 11.00 ± 1.72(1.77) | 0.11 ± 0.04(2.20) |
| T24 | 34.77 ± 2.38 | 443.83 ± 179.75 | 9.76 ± 0.89 | 0.16 ± 0.09 |
| T24rGEMCI20 | 38.19 ± 9.96(1.10) | 1363.74 ± 541.76(3.07) | 36.11 ± 11.29(3.69) | 0.09 ± 0.05(0.56) |
| T24rCDDP1000 | 42.56 ± 10.12(1.22) | 523.11 ± 300.92(1.18) | 12.09 ± 2.35(1.23) | 0.05 ± 0.01(0.31) |
| 5637 | 30.54 ± 19.53 | 266.63 ± 47.35 | 9.76 ± 3.47 | 0.007 ± 0.01 |
| 5637rGEMCI20 | 12.26 ± 4.94(0.40) | 211.01 ± 88.91(0.79) | 8.88 ± 4.34(0.91) | 0.03 ± 0.001(4.49) |
| 5637rCDDP1000 | 30.43 ± 19.17(1.00) | 242.52 ± 90.40(0.91) | 7.79 ± 3.32(0.80) | 0.01 ± 0.005(1.54) |
| RT4 | 51.82 ± 8.61 | 30.23 ± 0.70 | 48.57 ± 20.66 | 0.27 ± 0.08 |
| RT4rGEMCI10 | 76.50 ± 35.45(1.48) | 158.95 ± 68.79(5.26) | 18.72 ± 7.35(0.39) | 0.07 ± 0.01(0.26) |
| RT4rCDDP1000 | 44.50 ± 7.64(0.86) | 175.00 ± 58.88(5.79) | 31.29 ± 9.18(0.64) | 0.05 ± 0.01(0.19) |
| HT1376 | 95.26 ± 64.54 | 192.28 ± 68.49 | 29.64 ± 2.14 | 0.04 ± 0.01 |
| HT1376rGEMCI20 | 75.99 ± 21.92(0.80) | 190.68 ± 45.82(0.99) | 34.10 ± 24.01(1.15) | 0.13 ± 0.07(3.25) |
| HT1376rCDDP1000 | 63.19 ± 20.05(0.66) | 275.98 ± 33.82(1.44) | 13.27 ± 3.19(0.45) | 0.21 ± 0.14(5.25) |

\*Resistance factor: IC50 of parental cell line/ resistant sub-line. Values are means ± SD.

**Suppl. Table 1.** **(continued)** Concentrations of 16 different cytotoxic substances that reduce urothelial cancer cell viability by 50% (IC50).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Topotecan | Docetaxel | Larotaxel | Vinblastine |
| Cell line | IC50 (ng/mL) | IC50 (ng/mL) | IC50 (ng/mL) | IC50 (ng/mL) |
| RT112 | 13.90 ± 6.64 | 0.24 ± 0.14 | 0.72 ± 0.18 | 0.37 ± 0.06 |
| RT112rGEMCI20 | 9.36 ± 4.60(0.67)\* | 0.42 ± 0.18(1.75) | 0.89 ± 0.14(1.24) | 0.29 ± 0.06(0.78) |
| RT112rCDDP1000 | 19.56 ± 5.15(1.41) | 0.35 ± 0.09(1.46) | 0.98 ± 0.14(1.36) | 0.43 ± 0.05(1.16) |
| TCC-SUP | 6.92 ± 1.43 | 0.47 ± 0.27 | 0.89 ± 0.07 | 0.25 ± 0.14 |
| TCC-SUPrGEMCI20 | 6.39 ± 0.92(0.92) | 1.91 ± 0.83(4.06) | 0.86 ± 0.36(0.97) | 1.72 ± 0.89(6.88) |
| TCC-SUPrCDDP1000 | 15.04 ± 6.39(2.17) | 0.46 ± 0.23(0.98) | 0.66 ± 0.20(0.74) | 0.12 ± 0.04(0.48) |
| T24 | 4.58 ± 0.77 | 0.49 ± 0.17 | 1.25 ± 0.36 | 0.42 ± 0.16 |
| T24rGEMCI20 | 8.90 ± 4.50(1.94) | 1.32 ± 0.29(2.69) | 3.57 ± 1.63(2.86) | 0.70 ± 0.33(1.67) |
| T24rCDDP1000 | 6.58 ± 2.51(1.44) | 0.86 ± 0.48(1.75) | 2.26 ± 0.52(1.81) | 0.14 ± 0.04(0.33) |
| 5637 | 5.06 ± 0.26 | 0.31 ± 0.07 | 0.72 ± 0.11 | 0.10 ± 0.05 |
| 5637rGEMCI20 | 2.28 ± 0.48(0.43) | 0.32 ± 0.15(1.03) | 0.71 ± 0.43(0.99) | 0.15 ± 0.10(1.50) |
| 5637rCDDP1000 | 11.54 ± 0.97(2.28) | 0.34 ± 0.16(1.10) | 0.47 ± 0.20(0.65) | 0.17 ± 0.07(1.70) |
| RT4 | 9.79 ± 1.84 | 0.90 ± 0.42 | 2.34 ± 0.70 | 0.20 ± 0.10 |
| RT4rGEMCI10 | 8.27 ± 0.47(0.84) | 0.68 ± 0.28(0.76) | 1.66 ± 0.78(0.71) | 0.27 ± 0.07(1.35) |
| RT4rCDDP1000 | 10.45 ± 1.37(1.07) | 0.38 ± 0.20(0.42) | 0.90 ± 0.18(0.38) | 0.33 ± 0.01(1.65) |
| HT1376 | 46.82 ± 19.62 | 0.75 ± 0.54 | 0.90 ± 0.48 | 0.38 ± 0.25 |
| HT1376rGEMCI20 | 58.34 ± 22.36(1.25) | 0.24 ± 0.08(0.32) | 4.00 ± 2.04(4.44) | 0.43 ± 0.37(1.13) |
| HT1376rCDDP1000 | 29.11 ± 14.59(0.62) | 0.35 ± 0.12(0.47) | 0.84 ± 0.25(0.93) | 0.08 ± 0.05(0.21) |

\*Resistance factor: IC50 of parental cell line/ resistant sub-line. Values are means ± SD.