Supplementary Table S5A. Plating efficiencies of colony formation assays - RT

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Cell line** | **treatment** | **experimental**  **number** | **PE 0 Gy**  **RT** | **PE 1 Gy**  **RT** | **PE 2 Gy**  **RT** | **PE 4 Gy**  **RT** | **PE 6 Gy**  **RT** | **PE 8 Gy**  **RT** |
| LS1034\* | siNEG  si#1  si#2 | 1  1  1 | 11.60  4.23  0.57 | 11.80  3.10  0.57 | 10.60  2.60  0.40 | 9.10  1.88  0.20 | 5.71  1.21  0.11 | 3.15  0.55  0.08 |
| LS1034\* | siNEG  si#1  si#2 | 2  2  2 | 16.40  4.77  0.84 | 16.00  4.35  0.64 | 15.20  3.75  0.65 | 9.43  2.51  0.35 | 7.38  1.68  0.30 | 3.85  0.96  0.17 |
| LS1034\* | siNEG  si#1  si#2 | 3  3  3 | 10.49  4.73  0.66 | 11.07  4.98  0.67 | 9.73  3.75  0.38 | 7.67  2.68  0.34 | 5.27  1.50  0.21 | 3.69  0.53  0.19 |
| SW480\* | siNEG  si#1  si#2 | 1  1  1 | 67.08  43.58  39.92 | 59.25  31.75  31.58 | 50.17  23.50  24.08 | 27.50  14.21  12.96 | 16.53  8.00  7.75 | 7.96  4.46  3.52 |
| SW480\* | siNEG  si#1  si#2 | 2  2  2 | 75.00  59.17  56.50 | 75.58  43.92  36.08 | 62.92  40.92  32.33 | 42.96  21.96  19.38 | 24.50  12.11  11.44 | 15.65  7.56  7.44 |
| SW480\* | siNEG  si#1  si#2 | 3  3  3 | 54.33  69.73  46.67 | 45.67  43.47  33.33 | 43.67  33.20  20.93 | 22.33  21.20  15.00 | 12.83  12.00  8.89 | 6.83  7.93  4.80 |
| SW837\*\* | siNEG  si#1  si#2 | 1  1  1 | 22.08  22.88  21.33  24.54  20.29  25.67  22.00  17.67  23.71 | 20.29  18.75  17.33  20.96  16.75  22.38  20.00  14.46  19.29 | 15.83  14.00  14.92  19.46  12.71  18.42  20.33  12.38  16.96 | 11.46  9.54  9.69  12.92  8.15  12.90  13.21  7.69  11.00 | 7.03  5.88  4.78  7.15  4.96  6.64  8.10  4.57  7.93 | 3.65  3.05  2.77  4.44  2.19  3.82  5.48  2.98  3.94 |
| SW837\*\* | siNEG  si#1  si#2 | 2  2  2 |
| SW837\*\* | siNEG  si#1  si#2 | 3  3  3 |
| SW480\* | DMSO  1 µM XAV-939  4 µM XAV-939 | 1  1  1 | 61.07  61.20  104.80  46.80  33.60  41.47  50.93  49.20  40.40  40.53  37.73  46.40 | 56.80  64.80  102.13  46.00  35.47  37.73  45.33  51.07  38.27  35.87  41.07  43.73 | 47.60  50.80  79.33  37.07  32.53  35.47  42.00  42.40  33.33  33.20  38.40  39.47 | 40.93  36.67  59.67  29.07  18.73  25.00  32.87  27.67  22.67  21.07  22.33  27.00 | 28.31  24.58  41.47  20.27  16.36  15.78  19.87  19.29  14.84  15.29  16.49  17.24 | 19.23  16.67  26.67  12.80  8.57  8.53  13.37  12.50  8.97  11.47  9.40  10.33 |
| SW480\* | DMSO  1 µM XAV-939  4 µM XAV-939 | 2  2  2 |
| SW480\* | DMSO  1 µM XAV-939  4 µM XAV-939 | 3  3  3 |
| SW480\* | DMSO  1 µM XAV-939  4 µM XAV-939 | 4  4  4 |
| SW837\*\* | DMSO  5 µM XAV-939  10 µM XAV-939 | 1  1  1 | 26.67  39.07  38.40  30.93  32.87  24.93  33.80  26.67  54.27 | 28.60  34.13  35.13  29.80  26.80  24.07  31.13  25.67  50.20 | 26.27  28.93  34.40  26.00  28.93  22.27  30.07  24.67  50.33 | 19.87  23.17  24.00  22.07  18.33  13.60  20.27  18.23  38.23 | 15.49  14.60  17.76  13.56  14.56  10.36  13.42  12.00  29.16 | 11.00  11.20  10.12  11.77  8.00  6.02  10.70  8.30  14.10 |
| SW837\*\* | DMSO  5 µM XAV-939  10 µM XAV-939 | 2  2  2 |
| SW837\*\* | DMSO  5 µM XAV-939  10 µM XAV-939 | 3  3  3 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 1  1 | 59.67  67.50  84.67  73.83  88.00  88.67  47.50  56.50  50.50  69.33 | 50.33  47.33  50.50  58.67  65.83  68.00  22.33  45.00  29.33  55.67 | 30.00  33.83  15.83  20.33  41.50  46.08  17.33  31.25  16.33  36.33 | 10.61  19.50  7.22  11.33  21.06  27.17  7.00  n.a.  6.72  20.78 | 3.67  9.79  2.58  6.54  13.46  17.63  2.58  11.17  1.96  12.13 | 1.57  6.90  3.63  2.50  7.03  11.57  1.57  4.23  0.53  6.13 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 2  2 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 3  3 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 4  4 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 5  5 |
| RPE\*\*\* | - Wnt-3a 144 h  + Wnt-3a 144 h | 1  1 | 51.50  68.50  67.50  66.00  53.50  85.33 | 41.83  46.67  43.67  62.00  37.17  58.50 | 21.00  34.00  29.33  48.33  9.92  22.08 | 9.28  22.11  22.22  24.11  4.50  15.39 | 4.42  12.29  5.33  16.00  2.63  9.38 | 2.33  8.47  2.50  10.80  3.37  3.97 |
| RPE\*\*\* | - Wnt-3a 144 h  + Wnt-3a 144 h | 2  2 |
| RPE\*\*\* | - Wnt-3a 144 h  + Wnt-3a 144 h | 3  3 |
| RPE\*\*\* | DMSO  4 µM XAV-939 | 1  1 | 53.50  48.00  49.33  43.00  57.50  53.33 | 41.00  38.33  39.67  28.17  51.50  48.17 | 29.17  20.25  24.50  16.42  35.08  28.25 | 14.28  10.50  10.33  5.06  17.72  13.00 | 6.71  3.88  4.58  1.83  10.67  6.71 | 3.40  1.03  2.27  0.93  5.93  3.17 |
| RPE\*\*\* | DMSO  4 µM XAV-939 | 2  2 |
| RPE\*\*\* | DMSO  4 µM XAV-939 | 3  3 |
| RPE\*\*\* | EV  S33Y | 1  1 | 50.44  35.22  73.78  42.11  50.00  28.00  44.89  22.00 | 39.22  31.00  47.70  30.52  30.44  23.04  24.15  18.30 | 18.89  20.85  37.33  24.00  19.67  12.44  16.44  11.39 | 5.91  8.56  15.25  11.06  7.81  4.06  7.36  6.14 | 4.10  5.33  8.35  7.65  3.35  2.61  2.94  3.31 | 2.24  2.54  3.72  5.54  1.07  2.06  1.82  1.79 |
| RPE\*\*\* | EV  S33Y | 2  2 |
| RPE\*\*\* | EV  S33Y | 3  3 |
| RPE\*\*\* | EV  S33Y | 4  4 |
| RPE-EV\*\*\* | siNEG  si#1  si#2 | 1  1  1 | 50.67  61.56  45.33  42.67  29.44  43.89  72.33  39.67  35.89 | 36.75  39.93  35.93  32.42  22.15  27.19  39.83  22.07  24.30 | 21.78  25.89  21.17  21.28  11.44  2.50  28.61  20.61  15.17 | 6.64  10.92  8.08  2.50  4.42  8.78  15.89  11.08  9.89 | 4.07  1.74  3.80  7.11  0.98  1.37  10.52  4.70  7.09 | 2.43  0.50  1.15  0.92  0.79  2.94  7.21  3.71  2.39 |
| RPE-EV\*\*\* | siNEG  si#1  si#2 | 2  2  2 |
| RPE-EV\*\*\* | siNEG  si#1  si#2 | 3  3  3 |
| RPE-S33Y\*\*\* | siNEG  si#1  si#2 | 1  1  1 | 36.00  26.78  42.00  23.00  17.56  25.00  25.33  31.22  27.78 | 33.58  22.81  21.48  22.67  10.15  15.78  23.92  21.70  22.22 | 28.72  10.83  11.83  17.33  6.50  6.83  20.56  15.33  14.78 | 11.58  9.36  3.11  9.92  1.50  3.81  13.50  6.75  6.64 | 4.87  2.15  6.44  6.07  1.22  0.78  10.35  4.17  3.65 | 3.45  0.76  0.38  5.18  0.14  0.53  7.28  3.94  1.67 |
| RPE-S33Y\*\*\* | siNEG  si#1  si#2 | 2  2  2 |
| RPE-S33Y\*\*\* | siNEG  si#1  si#2 | 3  3  3 |
| SW1463\*\* | wt  RES | 1  1 | 12.89  10.13  7.56  11.53  6.36  12.60 | 8.84  5.20  6.22  9.40  5.78  11.93 | 9.20  9.60  5.24  8.40  5.47  9.07 | 5.09  5.20  3.24  6.47  0.71  5.57 | 3.27  3.00  1.57  5.20  0.33  2.44 | 1.66  2.40  0.93  1.80  0.06  3.78 |
| SW1463\*\* | wt  RES | 2  2 |
| SW1463\*\* | wt  RES | 3  3 |

Supplementary Table S5B. Plating efficiencies of colony formation assays - CRT

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Cell line** | **treatment** | **experimental**  **number** | **PE 0 Gy**  **CRT** | **PE 1 Gy**  **CRT** | **PE 2 Gy**  **CRT** | **PE 4 Gy**  **CRT** | **PE 6 Gy**  **CRT** | **PE 8 Gy**  **CRT** |
| LS1034\* | siNEG  si#1  si#2 | 1  1  1 | 9.47  3.37  0.27  8.53  4.30  0.33  13.64  5.62  0.48 | 10.33  2.47  0.23  9.24  4.15  0.33  12.84  4.52  0.53 | 7.20  1.73  0.23  7.78  2.83  0.24  11.47  3.82  0.24 | 6.53  1.47  0.12  5.13  1.86  0.15  7.18  2.88  0.24 | 5.20  0.80  0.09  2.90  0.82  0.06  4.28  2.06  0.21 | 2.45  0.33  0.04  1.38  0.26  0.07  2.52  1.50  0.11 |
| LS1034\* | siNEG  si#1  si#2 | 2  2  2 |
| LS1034\* | siNEG  si#1  si#2 | 3  3  3 |
| SW480\* | siNEG  si#1  si#2 | 1  1  1 | 77.87  67.60  58.27  79.60  79.60  58.40  59.47  61.33  56.80 | 79.60  52.67  47.60  78.93  82.40  59.60  60.80  51.87  46.27 | 69.33  54.67  46.80  70.67  68.80  49.33  51.73  42.67  35.07 | 47.40  34.93  25.27  54.60  46.27  35.87  35.07  17.87  15.60 | 29.24  20.58  16.40  40.84  30.44  23.73  28.31  15.47  14.67 | 27.50  18.70  13.50  24.27  23.33  17.77  21.80  10.97  6.90 |
| SW480\* | siNEG  si#1  si#2 | 2  2  2 |
| SW480\* | siNEG  si#1  si#2 | 3  3  3 |
| SW837\*\* | siNEG  si#1  si#2 | 1  1  1 | 22.98  27.60  24.44  22.00  26.27  22.67  28.62  31.87  19.51 | 22.18  24.22  27.73  26.44  23.51  20.71  30.00  27.33  15.33 | 20.80  21.38  24.89  22.67  22.09  18.36  27.47  26.44  15.42 | 15.33  12.69  15.40  16.47  14.31  12.53  19.58  17.47  10.18 | 8.64  9.48  9.56  12.13  7.85  7.94  13.75  10.70  6.22 | 7.83  5.00  7.73  7.94  4.34  4.57  10.07  4.83  3.80 |
| SW837\*\* | siNEG  si#1  si#2 | 2  2  2 |
| SW837\*\* | siNEG  si#1  si#2 | 3  3  3 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 1  1 | 53.50  59.33  72.50  62.33  90.00  95.67  31.67  53.67  33.00  62.00 | 46.00  44.33  48.17  52.83  55.83  68.33  15.50  42.67  20.50  46.50 | 22.75  29.58  13.67  17.08  40.92  44.58  8.33  26.00  10.50  32.50 | 12.00  16.83  5.33  8.89  18.72  25.94  3.56  #DIV/0!  2.39  15.44 | 3.71  8.50  2.63  5.29  7.46  16.96  1.13  7.81  0.75  7.54 | 1.60  4.83  1.50  1.57  4.17  10.27  1.67  3.67  0.43  3.10 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 2  2 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 3  3 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 4  4 |
| RPE\*\*\* | - Wnt-3a 24 h  + Wnt-3a 24 h | 5  5 |
| RPE\*\*\* | - Wnt-3a 144 h  + Wnt-3a 144 h | 1  1 | 61.33  47.83  61.50  66.33  44.33  71.50 | 47.33  45.50  44.83  51.83  37.33  59.33 | 23.08  33.42  24.83  35.50  8.92  20.92 | 7.67  18.50  13.94  23.78  3.83  14.06 | 6.04  11.46  3.50  12.00  1.54  7.63 | 1.70  6.93  1.67  7.30  1.80  2.70 |
| RPE\*\*\* | - Wnt-3a 144 h  + Wnt-3a 144 h | 2  2 |
| RPE\*\*\* | - Wnt-3a 144 h  + Wnt-3a 144 h | 3  3 |
| RPE\*\*\* | EV  S33Y | 1  1 | 43.89  22.00  49.56  31.89  35.33  18.44  29.33  16.22 | 28.33  17.28  28.44  15.70  17.56  14.22  13.93  10.74 | 14.52  9.56  17.39  14.83  13.94  5.33  7.28  5.06 | 4.20  7.80  4.56  6.64  5.03  2.11  1.83  3.06 | 1.75  4.92  2.24  5.20  1.91  1.20  0.57  1.50 | 2.06  1.69  1.42  1.92  0.53  0.64  0.51  0.71 |
| RPE\*\*\* | EV  S33Y | 2  2 |
| RPE\*\*\* | EV  S33Y | 3  3 |
| RPE\*\*\* | EV  S33Y | 4  4 |
| RPE-EV\*\*\* | siNEG  si#1  si#2 | 1  1  1 | 52.67  61.78  46.56  20.17  30.67  16.67  70.50  35.89  32.67 | 27.50  35.11  32.30  17.92  17.19  15.63  37.75  20.89  22.74 | 15.72  22.39  18.33  12.67  7.89  4.61  20.89  14.44  13.39 | 4.39  12.25  6.36  3.58  1.86  7.42  11.86  9.25  6.31 | 2.48  0.87  1.91  4.48  0.54  1.11  9.37  3.15  5.61 | 1.01  0.33  1.06  1.14  0.33  2.13  4.72  3.00  2.00 |
| RPE-EV\*\*\* | siNEG  si#1  si#2 | 2  2  2 |
| RPE-EV\*\*\* | siNEG  si#1  si#2 | 3  3  3 |
| RPE-S33Y\*\*\* | siNEG  si#1  si#2 | 1  1  1 | 32.33  19.89  32.00  48.00  7.78  11.22  20.67  24.11  30.11 | 24.25  14.07  17.78  27.17  3.70  6.00  17.08  16.22  14.67 | 22.33  7.28  8.28  21.11  2.78  3.89  14.17  8.67  7.78 | 6.39  5.08  2.22  9.06  0.94  1.92  7.61  3.69  2.89 | 3.09  0.80  2.83  4.87  0.80  0.17  4.89  1.94  1.52 | 2.38  0.31  0.03  3.85  0.13  0.36  3.69  1.81  0.88 |
| RPE-S33Y\*\*\* | siNEG  si#1  si#2 | 2  2  2 |
| RPE-S33Y\*\*\* | siNEG  si#1  si#2 | 3  3  3 |

\* colon cancer cell line, \*\* rectal cancer cell line, \*\*\* normal retina epithelial cell line, RT = radiotherapy, EV = empty vector, S33Y = mutated β-catenin (S33Y), n.a. = not applicable, RES = radiation resistant (68 Gy), CRT = chemoradiotherapy