**MTT ASSAY ABSORBANCE READINGS OF NHDF TREATED CELLS**

**MTT ASSAY ABSORBANCE READINGS OF SCFV-MHALT-1 TREATED NHDF CELLS**

|  |  |
| --- | --- |
|  Concentration (μg/mL) |  |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 | DMSO | Camptothecin |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviationGlycerol (%) | 0.0430.0420.0410.0420.0560.0510.0570.055 | 0.2810.3610.2580.3000.3420.054100.0%0.2870.2710.2980.2860.2320.012100.0%100.0%0.0360.0 | 0.2950.2210.2360.2510.2090.03961.1%0.2250.2260.2220.2240.1700.00273.3%67.2%0.0292.5 | 0.2610.2160.2440.2400.1980.02357.9%0.2230.2120.2180.2180.1630.00670.3%64.1%0.0195.0 | 0.2260.2160.1710.2040.1620.02947.4%0.2090.2290.2110.2160.1620.01155.2%51.3%0.0217.6 | 0.1720.1690.1870.1760.1340.01039.2%0.1630.1690.1640.1650.1110.00347.8%43.5%0.00910.0b | 0.1410.1400.1410.1410.0990.00128.9%0.1410.1320.1410.1380.0830.00535.8%32.4%0.00412.7b | 0.1360.1420.1310.1360.0940.00627.4%0.0950.0970.1110.1010.0460.00919.8%23.6%0.02115.3b | 0.1090.1170.1140.1130.0710.00420.8%0.0990.0970.0940.0970.0420.00318.1%19.5%0.010- | 0.3210.3000.3020.3080.2660.01277.7%0.2200.2260.2330.2260.1710.00773.7%75.7%0.045- |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

b Glycerol content that affect the cell viability.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**NORMALISED ABSORBANCE READINGS OF SCFV-MHALT-1 IMMUNOTOXIN TREATED NHDF CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Cell viability (%)Dead cells (%)aGlycerol (%)bDead cells (%)cNormalised dead cells (%)dNormalised cell viability (%)e | 100.00.00.00.00.0100.0 | 67.232.82.511.621.278.8 | 64.135.95.020.515.484.6 | 51.348.77.633.015.784.3 | 43.556.510.080.7-24.3100.0f | 32.467.612.788.7-21.0100.0f | 23.676.415.396.8-20.4100.0f |

a Dead cells(%)= 100% - % of cell viability

b Percentage of glycerol in immunotoxins

c Percentage of dead cells from glycerol treated cells from TABLE 7.1

d Normalised dead cells (%) = a - c

e Normalised cell viability (%) = 100% - d

f Glycerol content that affect the cell viability

**MTT ASSAY ABSORBANCE READINGS OF MHALT-1-SCFV TREATED NHDF CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 | DMSO |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviationGlycerol (%) | 0.0430.0420.0410.0420.0560.0510.0570.055 | 0.2970.2530.3140.2880.2460.031100.0%0.2850.3170.2980.3000.2450.016100.0%100.0%0.0230.0 | 0.2740.3150.3280.3060.2640.028107.3%0.2840.2940.3180.2990.2440.01799.6%103.5%0.0211.2 | 0.2620.2330.2870.2600.2180.02788.6%0.2620.2830.2870.2770.2230.01391.0%89.8%0.0212.3 | 0.2540.2320.2120.2330.1910.02177.6%0.2540.2720.2620.2630.2080.00984.9%81.3%0.0223.5 | 0.2210.2620.2210.2350.1930.02478.5%0.2510.2620.2540.2560.2010.00682.0%80.3%0.0194.6 | 0.2210.2140.2210.2190.1770.00472.0%0.2510.2540.2510.2520.1970.00280.4%76.2%0.0185.8 | 0.2000.2770.2190.2320.1900.04077.2%0.2310.2370.2190.2290.1740.00971.0%74.1%0.0266.9 | 0.1090.1170.1140.1130.0710.00428.9%0.0990.0970.0940.0970.0420.00317.1%23.0%0.010- |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

b Glycerol content that affect the cell viability.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**NORMALISED ABSORBANCE READINGS OF MHALT-1-SCFV IMMUNOTOXIN TREATED NHDF CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Cell viability (%)Dead cells (%)aGlycerol (%)bDead cells (%)cNormalised dead cells (%)dNormalised cell viability (%)e | 100.00.00.00.00.0100.0 | 103.5-3.51.27.3-10.8100.0 | 89.910.12.310.2-0.1100.0 | 81.318.73.516.12.797.3 | 80.319.74.619.10.799.3 | 76.223.85.822.11.798.3 | 74.125.96.932-6.1100.0 |

aDead cells(%)= 100% - % of cell viability

b Percentage of glycerol in immunotoxins

c Percentage of dead cells from glycerol treated cells from TABLE 7.1

d Normalised dead cells (%) = a - c

e Normalised cell viability (%) = 100% - d

f Glycerol content that affect the cell viability

**MTT ASSAY ABSORBANCE READINGS OF GLYCEROL TREATED NHDF CELLS**

|  |
| --- |
|  Percentage (%) |
|  | Blank | 0.0 | 1.0 | 2.5 | 5.0 | 7.0 | 10.0 | 15.0 |
| *1st Replicate*Reading 1Reading 2Reading 3Average Minus blankaStandard deviationCell viability *2nd Replicate*Reading 1Reading 2Reading 3Average Minus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviationAverage dead cellsd | 0.0430.0420.0410.0420.0560.0510.0570.055 | 0.2870.2900.3000.2920.2500.007100.0%0.3110.2980.3000.3030.2480.007100.0%100.0%0.0090.0% | 0.2660.2740.2880.2760.2340.01193.6%0.2860.2740.2880.2830.2280.00891.9%92.8%0.0097.2% | 0.2600.2770.2590.2650.2230.01089.2%0.2770.2600.2790.2720.2170.01087.5%88.4%0.01011.6% | 0.2520.2350.2410.2430.2010.00180.4%0.2410.2550.2530.2500.1950.00878.6%79.5%0.00820.5% | 0.2100.2240.2080.2140.1720.00968.8%0.2210.2240.2180.2210.1660.00366.9%67.9%0.00732.1% | 0.1010.0970.0940.0970.0550.00422.0%0.0910.0970.0980.0950.0410.00416.5%19.3%0.00380.7% | 0.0520.0490.0550.0520.0100.0034.0%0.0620.0690.0550.0620.0070.0072.8%3.4%0.00796.6% |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings. Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

d Average dead cells (%) = 100% - average cell viability (%)c

**MTT ASSAY ABSORBANCE READINGS OF MHALT-1 TREATED NHDF CELLS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviation | 0.0840.0830.0850.0840.1510.1050.1020.119 | 0.4720.3570.3410.3900.3060.071100.0%0.9330.8970.7750.8680.7490.083100.0%100.0%0.271 | 0.3490.3670.3430.3530.2690.01287.9%0.6070.5990.7470.6510.5320.08371.0%79.4%0.172 | 0.3800.3630.3450.3630.2790.01891.1%0.7311.7680.8441.1140.9950.569132.8%112.0%0.547 | 0.3590.3620.3210.3470.2630.02386.1%0.8430.7230.7650.7770.6580.06187.8%86.9%0.239 | 0.3920.3750.3320.3660.2820.03192.3%0.6640.6950.8160.7250.6060.08080.9%86.6%0.204 | 0.4340.3680.3770.3930.3090.036100.0%0.6690.7680.8220.7530.6340.07884.6%92.8%0.204 |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**MTT ASSAY ABSORBANCE READINGS OF ANTI-MKRAS G12V-34 TREATED NHDF CELLS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviation | 0.0390.0410.0400.0400.0480.0450.0400.044 | 0.1940.2430.2370.2250.1850.027100.0%0.2140.2170.2500.2270.1830.020100.0%100.0%0.021 | 0.2100.2020.2480.2200.1800.02597.5%0.1770.2490.2310.2190.1750.03895.6%96.5%0.028 | 0.1980.2140.1890.2000.1600.01386.8%0.2270.2420.2050.2250.1800.01998.7%92.8%0.020 | 0.2190.2460.2360.2340.1940.014104.9%0.2890.2090.2520.2500.2060.040112.6%108.7%0.028 | 0.2010.2330.2260.2200.1800.01797.5%0.2560.2380.2010.2320.1870.028102.6%100.0%0.022 | 0.2360.2140.2470.2320.1920.017104.2%0.1910.2150.2740.2270.1820.04399.8%102.0%0.029 | 0.2170.2540.2070.2260.1860.025100.7%0.2470.1780.2260.2170.1730.03594.5%97.6%0.028 |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**MTT ASSAY ABSORBANCE READINGS OF HCT 116 TREATED CELLS**

**MTT ASSAY ABSORBANCE READINGS OF SCFV-MHALT-1 TREATED HCT 116 CELLS**

|  |  |
| --- | --- |
|  Concentration (μg/mL) |  |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 | DMSO | Camptothecin |
| *1st Replicate*Reading 1Reading 2Reading 3Average Minus blankaStandard deviationCell viability *2nd Replicate*Reading 1Reading 2Reading 3Average Minus blankaStandard deviationCell viability Average cell viabilitycStandard deviationGlycerol (%) | 0.0780.0810.0760.0780.0670.0610.0660.065 | 1.7531.6331.7201.7021.6240.062100.0%1.3531.3391.3211.3381.2730.016100.0%100.0%0.2040.0 | 1.3401.4121.2661.3391.2610.07377.6%1.1411.1121.1381.1301.0660.01683.4%80.5%0.1242.5 | 0.7340.9170.8800.8440.7660.09747.2%0.6320.6250.6380.6320.5670.00744.5%45.9%0.1315.0 | 0.4770.4580.4350.4570.3790.02123.3%0.3670.3570.3350.3530.2880.01622.6%23.0%0.0597.6 | 0.2610.2910.2660.2730.1950.01612.1%0.1610.1940.1660.1740.1090.0188.56%10.3%0.05610.0b | 0.1530.1510.1700.1580.0800.0104.9%0.1530.1510.1700.1580.0930.0117.3%6.1%0.00912.7b | 0.1070.1130.1130.1110.0330.0032.0%0.0910.0930.0910.0920.0270.0012.1%2.1%0.01115.3b | 0.1450.1340.1920.1570.0790.0314.9%0.0980.0960.0920.0950.0310.0032.4%3.7%0.039- | 0.8440.7540.7890.7960.7180.04544.2%0.7230.5980.7450.6890.6240.07949.0%46.6%0.082- |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

b Glycerol content that affect the cell viability.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**NORMALISED ABSORBANCE READINGS OF SCFV-MHALT-1 IMMUNOTOXIN TREATED HCT 116 CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Cell viability (%)Dead cells (%)aGlycerol (%)bDead cells (%)cNormalised dead cells (%)dNormalised cell viability (%)e | 100.00.00.00.00.0100.0 | 80.519.52.519.30.299.8 | 45.954.15.019.234.965.1 | 23.077.07.632.045.055.0 | 10.389.710.079.610.189.9 | 6.193.912.785.18.891.2 | 2.197.915.397.80.199.9 |

a Dead cells (%) = 100% - % of cell viability

b Percentage of glycerol in immunotoxins

c Percentage of dead cells from glycerol treated cells from TABLE 7.6

d Normalised dead cells (%) = a - c

e Normalised cell viability (%) = 100% - d

f Glycerol content that affect the cell viability

**MTT ASSAY ABSORBANCE READINGS OF MHALT-1-SCFV TREATED HCT 116 CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 | DMSO |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviationGlycerol (%) | 0.0780.0790.0810.0790.0670.0610.0660.065 | 1.7911.7961.7891.7921.7130.004100.0%1.3611.3441.3461.3501.2860.009100.0%100.0%0.2420.0 | 1.5121.4791.5711.5211.4420.04784.2%1.1141.1081.1111.1111.0460.00381.3%82.8%0.2261.2 | 1.2111.2121.2011.2081.1290.00666.0%0.9870.9820.9780.9820.9180.00571.2%68.6%0.1242.3 | 1.1821.1971.1971.1921.1130.00965.0%0.9610.9610.9780.9670.9020.01070.1%67.6%0.1243.5 | 0.6020.9840.9610.8490.7700.21445.0%0.6020.6890.6650.6520.5870.04545.6%45.3%0.1764.6 | 0.6200.6690.6920.6600.5810.03733.9%0.4880.4530.4920.4780.4130.02132.1%33.0%0.1045.8 | 0.6230.5630.5760.5870.5080.03229.7%0.4010.3990.3890.3960.3320.00626.8%27.8%0.1076.9 | 0.1450.1340.1920.1570.0790.0314.6%0.0980.0960.0920.0950.0310.0032.3%3.5%0.039- |

a Minus blank is average value of each concentration subtracted with average of blank. Standard deviation is standard error calculate from the three readings. Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability value of replicate 1 and replicate 2

**NORMALISED ABSORBANCE READINGS OF MHALT-1-SCFV IMMUNOTOXIN TREATED HCT 116 CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Cell viability (%)Dead cells (%)aGlycerol (%)bDead cells (%)cNormalised dead cells (%)dNormalised cell viability (%)e | 100.00.00.00.00.0100.0 | 83.017.01.21.815.284.8 | 68.631.42.318.512.987.1 | 67.632.43.519.213.286.8 | 45.354.74.618.935.864.2 | 33.067.05.821.745.354.7 | 27.872.26.927.744.555.5 |

a Dead cells (%) = 100% - % of cell viability

b Percentage of glycerol in immunotoxins

c Percentage of dead cells from glycerol treated cells from TABLE 7.6

d Normalised dead cells (%) = a - c

e Normalised cell viability (%) = 100% - d

f Glycerol content that affect the cell viability

**MTT ASSAY ABSORBANCE READINGS OF GLYCEROL TREATED HCT 116 CELLS**

|  |
| --- |
|  Percentage (%) |
|  | Blank | 0.0 | 1.0 | 2.5 | 5.0 | 7.0 | 10.0 | 15.0 |
| *1st Replicate*Reading 1Reading 2Reading 3Average Minus blankaStandard deviationCell viability *2nd Replicate*Reading 1Reading 2Reading 3Average Minus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviationAverage dead cellsd | 0.0790.0780.0810.0790.0810.0790.0780.079 | 1.7591.7331.7211.7381.6590.020100.0%1.3591.3331.3411.3441.2650.013100.0%100.0%0.2160.0% | 1.8321.7121.6291.7241.6450.10299.2%1.3321.3181.3231.3241.2450.00798.4%98.8%0.2281.2% | 1.3791.4121.3631.3851.3060.02578.7%1.1231.1191.1311.1241.0450.00682.6%80.7%0.14419.3% | 1.3691.3961.4361.4001.3210.03479.6%1.1221.1161.1111.1161.0370.00682.0%80.8%0.15719.2% | 1.1511.2701.3281.2501.1710.09070.6%0.9870.9810.9890.9860.9060.00471.6%71.1%0.15528.9% | 0.4050.4220.4810.4360.3570.04021.5%0.3110.3220.3380.3240.2440.01419.3%20.4%0.06779.6% | 0.1580.1250.1320.1380.0590.0173.6%0.0910.1130.1210.1080.0290.0162.3%3.0%0.02297.0% |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings. Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

d Average dead cells (%) = 100% - average cell viability (%)c

**MTT ASSAY ABSORBANCE READINGS OF MHALT-1 TREATED HCT 116 CELLS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviation | 0.2650.2040.2930.2540.1480.1390.1690.152 | 0.8480.8760.8250.8500.5960.026100.0%0.8970.9761.1801.0180.8660.146100.0%100.0%0.131 | 0.7220.8870.8210.8100.5560.08393.3%0.9410.8360.8200.8660.7140.06682.4%87.9%0.074 | 0.8840.7950.7300.8030.5490.07792.2%0.9830.9430.9660.9640.8120.02093.8%93.0%0.102 | 0.8520.8030.8420.8320.5780.02697.1%1.0490.8860.8410.9250.7730.10989.3%93.2%0.088 | 0.9020.7810.7280.8040.5500.08992.3%1.0580.8490.9950.9670.8150.10794.2%93.2%0.126 | 0.8890.7980.7990.8290.5750.05296.5%0.9971.0450.8860.9760.8240.08295.2%95.8%0.101 |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**MTT ASSAY ABSORBANCE READINGS OF ANTI-MKRAS G12V-34 TREATED HCT 116 CELLS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviation | 0.0510.0540.0490.0510.0490.0540.0570.053 | 0.7970.6290.6500.6920.6410.092100.0%0.7920.7260.7450.7540.7010.034100.0%100.0%0.071 | 0.6050.4420.6330.5600.5090.10379.4%0.6380.6600.6360.6450.5910.01384.4%81.9%0.080 | 0.6240.6410.5760.6140.5620.03487.8%0.6130.6220.6330.6230.5690.01081.2%84.5%0.023 | 0.7680.5580.7800.7020.6510.125101.6%0.6370.5670.6180.6070.5540.03679.0%90.3%0.097 | 0.5960.5740.6140.5950.5430.02084.8%0.6330.5200.6770.6100.5560.08179.4%82.1%0.053 | 0.5650.6950.6660.6420.5910.06892.2%0.6130.5380.6030.5850.5310.04175.8%84.0%0.059 | 0.6350.5830.7000.6390.5880.05991.8%0.6780.6590.6440.6600.6070.01786.6%89.2%0.040 |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**MTT ASSAY ABSORBANCE READINGS OF SW-480 TREATED CELLS**

**MTT ASSAY ABSORBANCE READINGS OF SCFV-MHALT-1 TREATED SW-480 CELLS**

|  |  |
| --- | --- |
|  Concentration (μg/mL) |  |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 | DMSO | Camptothecin |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability *2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability Average cell viabilitycStandard deviationGlycerol (%) | 0.0810.0840.0830.0830.0910.0890.0930.091 | 1.6561.6121.6531.6401.5570.025100.0%2.1342.2322.2112.1922.1010.052100.0%100.0%0.3040.0 | 1.6451.6241.6541.6411.5580.015100.0%2.0891.9982.0082.0321.9410.05092.4%96.2%0.2172.5 | 1.2201.2361.2841.2471.1640.03374.8%1.6231.6391.6431.6351.5440.01173.5%74.2%0.2145.0 | 0.4780.5140.5020.4980.4150.01826.7%0.7380.7140.7320.7280.6370.01230.3%28.5%0.1277.6 | 0.4350.4340.4100.4260.3430.01422.0%0.6990.6850.6760.6870.5960.01228.4%25.2%0.14310.0b | 0.3610.3520.3640.3590.2760.00617.7%0.5640.5520.5450.5540.4630.01022.0%19.9%0.10712.7b | 0.2950.2920.2670.2850.2020.01513.0%0.4950.4820.4670.4810.3900.01418.6%15.8%0.10915.3b | 0.3780.3240.4500.3840.3010.06319.3%0.5480.5240.5310.5340.4430.01221.1%20.2%0.092- | 0.8860.8190.8540.8530.7700.03449.5%0.9671.1310.9881.0290.9380.08944.6%47.1%0.114 |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

b Glycerol content that affect the cell viability.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**NORMALISED ABSORBANCE READINGS OF SCFV-MHALT-1 IMMUNOTOXIN TREATED SW-480 CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Cell viability (%)Dead cells (%)aGlycerol (%)bDead cells (%)cNormalised dead cells (%)dNormalised cell viability (%)e | 100.00.00.00.00.0100.0 | 96.23.82.57.3-3.5103.5 | 74.225.85.08.916.983.1 | 28.571.57.613.058.541.5 | 25.274.810.067.87.093.0 | 19.980.112.775.44.795.3 | 15.884.215.384.00.299.8 |

a Dead cells (%) = 100% - % of cell viability

b Percentage of glycerol in immunotoxins

c Percentage of dead cells from glycerol treated cells from TABLE 8.1

d Normalised dead cells (%) = a - c

e Normalised cell viability (%) = 100% - d

f Glycerol content that affect the cell viability

**MTT ASSAY ABSORBANCE READINGS OF MHALT-1-SCFV TREATED SW-480 CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 | DMSO |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviationGlycerol (%) | 0.0820.0830.0820.0820.0910.0890.0930.091 | 1.8511.8701.8601.8601.7780.010100.0%2.2172.1972.2132.2092.1180.011100.0%100.0%0.1910.0 | 1.8751.8711.8711.8721.7900.002100.7%2.1892.2112.1982.1992.1080.01299.5%100.1%0.1791.2 | 1.7521.6451.6921.7961.6960.05495.4%2.0671.9871.9722.0091.9180.05190.6%93.0%0.1772.3 | 1.2811.2881.2521.2741.1920.01967.0%1.4711.4761.4521.4661.3750.01364.9%66.0%0.1073.5 | 0.9090.9920.9720.9580.8760.04349.3%1.1111.0971.1071.1051.0140.00747.9%48.6%0.0854.6 | 0.7890.7250.7020.7390.6570.04537.0%0.9890.9730.9810.9810.8900.00842.0%39.5%0.1365.8 | 0.5420.5050.5330.5270.4450.01925.0%0.7220.7050.7330.7200.6290.01429.7%27.4%0.1076.9 | 0.3780.3240.4500.3840.3010.06316.9%0.5180.4840.5110.5040.4130.01819.5%18.2%0.078- |

a Minus blank is average value of each concentration subtracted with average of blank. Standard deviation is standard error calculate from the three readings. Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability value of replicate 1 and replicate 2

**NORMALISED ABSORBANCE READINGS OF MHALT-1-SCFV IMMUNOTOXIN TREATED SW-480 CELLS**

|  |
| --- |
|  Concentration (μg/mL) |
|  | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Cell viability (%)Dead cells (%)aGlycerol (%)bDead cells (%)cNormalised dead cells (%)dNormalised cell viability (%)e | 100.00.00.00.00.0100.0 | 100.1-0.11.22.5-2.6102.6 | 93.07.02.36.90.199.9 | 66.034.03.58.126.974.1 | 48.651.44.68.642.857.2 | 39.560.55.89.451.148.9 | 27.472.66.912.160.539.5 |

a Dead cells (%) = 100% - % of cell viability

b Percentage of glycerol in immunotoxins

c Percentage of dead cells from glycerol treated cells from TABLE 8.1

d Normalised dead cells (%) = a - c

e Normalised cell viability (%) = 100% - d

f Glycerol content that affect the cell viability

**MTT ASSAY ABSORBANCE READINGS OF GLYCEROL TREATED SW-480 CELLS**

|  |
| --- |
|  Percentage (%) |
|  | Blank | 0.0 | 1.0 | 2.5 | 5.0 | 7.0 | 10.0 | 15.0 |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability *2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviationAverage dead cellsd | 0.0810.0820.0810.0810.0910.0890.0930.091 | 1.5971.6221.5351.5851.5040.045100.0%2.2212.1772.1952.1982.1070.022100.0%100.0%0.3370.0% | 1.5291.5461.5381.5381.4570.00996.9%2.1792.1862.1712.1792.0880.00899.1%98.0%0.3512.0% | 1.4961.4221.4001.4391.3580.05090.3%2.0912.0992.0952.0952.0040.00495.1%92.7%0.3617.3% | 1.4531.4091.4361.4331.3520.02289.9%2.0462.0372.0252.0361.9450.01192.3%91.1%0.3318.9% | 1.3631.3681.3731.3681.2870.00585.6%1.9891.9681.9721.9761.8850.01189.5%87.6%0.33312.4% | 0.5080.5550.5360.5330.4520.02430.1%0.8210.8130.8050.8130.7220.00834.3%32.2%0.15467.8% | 0.2790.2880.3110.2930.2120.01714.1%0.5290.4890.5120.5100.4190.02019.9%17.0%0.12083.0% |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings. Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

d Average dead cells (%) = 100% - average cell viability (%)

**MTT ASSAY ABSORBANCE READINGS OF MHALT-1 TREATED SW-480 CELLS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviation | 0.1680.1230.1360.1420.2500.1430.1620.185 | 1.0550.9151.2821.0840.9420.185100.0%1.1610.8560.8760.9640.7790.171100.0%100.0%0.131 | 1.0430.8801.0730.9990.8560.10490.9%0.9720.9590.8130.9150.7300.08893.6%92.3%0.098 | 1.3020.7851.2041.0970.9550.275101.4%0.9801.2240.8301.0110.8260.199106.0%103.7%0.220 | 0.9800.8561.1250.9870.8450.13589.7%1.1001.1450.9071.0510.8660.126111.1%100.4%0.122 | 0.8850.9721.0230.9600.8180.07086.8%1.1071.0540.8551.0050.8200.133105.3%96.0%0.098 | 0.9690.9500.6530.8570.7150.17775.9%0.9961.1361.0511.0610.8760.071112.4%94.2%0.164 |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2

**MTT ASSAY ABSORBANCE READINGS OF ANTI-MKRAS G12V-34 TREATED SW-480 CELLS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Blank | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| *1st Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viability*2nd Replicate*Reading 1Reading 2Reading 3AverageMinus blankaStandard deviationCell viabilityAverage cell viabilitycStandard deviation | 0.0430.0410.0420.0420.0380.0410.0470.042 | 0.4630.4990.5060.4890.4470.023100.0%0.4910.5090.5760.5250.4830.045100.0%100.0%0.037 | 0.4400.4030.4610.4350.3930.02987.8%0.5130.4500.4380.4670.4250.04087.9%87.9%0.036 | 0.6940.4620.5120.5560.5140.122114.9%0.4860.4580.4480.4640.4220.02087.3%101.1%0.093 | 0.4390.4570.4760.4570.4150.01992.8%0.4650.4550.4270.4490.4070.02084.2%88.5%0.018 | 0.4500.5900.4850.5080.4660.073104.2%0.5050.4550.4950.4850.4430.02691.7%98.0%0.051 | 0.4820.4860.4860.4850.4430.00299.0%0.4320.4350.4430.4370.3950.00681.7%90.3%0.027 | 0.4520.5340.5090.4980.4560.042102.0%0.4680.4780.4970.4810.4390.01590.8%96.4%0.030 |

a Minus blank is average value subtracted with average of blank. Standard deviation is standard error calculate from the three readings.

Percentage of cell viability is calculated based on Equation 3.6.

c Average cell viability (%) is average cell viability (%) of replicate 1 and replicate 2