CellCiphr® Panel 2
Rat Hepatocytes

Compound: **FDA-77**

Classification	Safety Rank **1/194**	Safety Risk Index **High Risk**

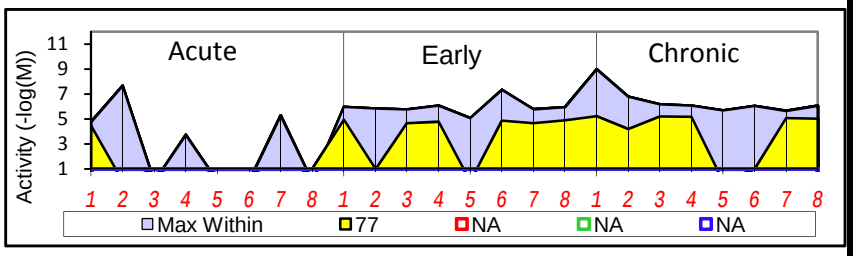
Indicators	#	Measured Effects	AC_{50} (M) 1 hr	24 hr	48 hr
Maximum Tolerated Dose		>70% Cell Loss	38.3E-6	19.2E-6	8.0E-6
Earliest Toxic Indicator		Cell Loss	33.2E-6		
Most Sensitive Toxic Indicator		Cell Loss			5.7E-6
General Indicators of Toxicity	1	Cell Loss	33.2E-6	11.2E-6	5.7E-6
	2	Nuclear Size		*	61.5E-6
Mechanistic Indicators	3	DNA Damage Response		21.0E-6	6.0E-6
	4	Apoptosis		16.1E-6	6.4E-6
	5	Lysosomal Mass			
	6	DNA Fragmentation		13.3E-6	*
	7	Mitochondrial Potential		21.4E-6	8.1E-6
	8	Steatosis		12.4E-6	9.4E-6

Legend		
	*	- Excluded
		- No Activity
		- Not Measured

Compound Correlations	Within Test Set	With CellCiphr® Database
Compounds with a threshold Pearson's correlation coefficient of 0.8 or higher		

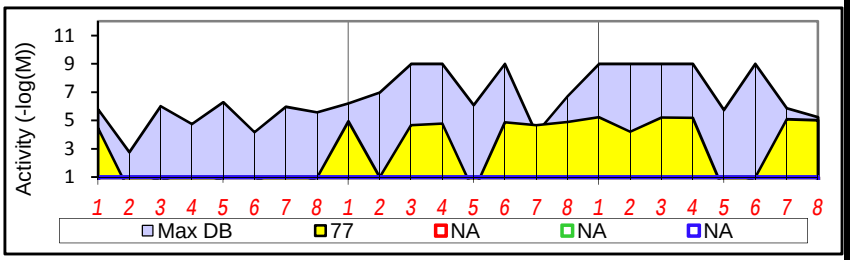
Profile Similarity Plots

Profile Similarity Within Test Set
Report compound (yellow)
Compounds in this set (r, g & b).
X-axis: Acute, Early and Chronic Features #1-10 as above.
Y-axis: - Log(AC50) (3 = mM, 9 = nM)



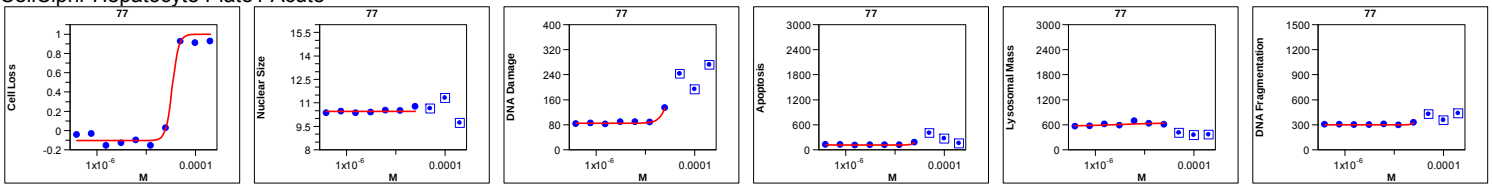
Profile Similarity With CellCiphr DB
Report compound (yellow)
CellCiphr DB compounds (r, g & b).

Gray background represents maximum response in the set (top) and DB (bottom)

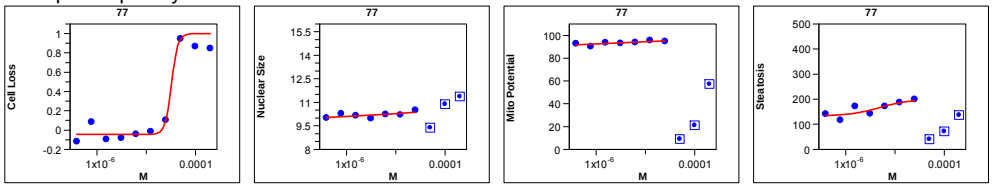


Observations on Compound Physical Properties

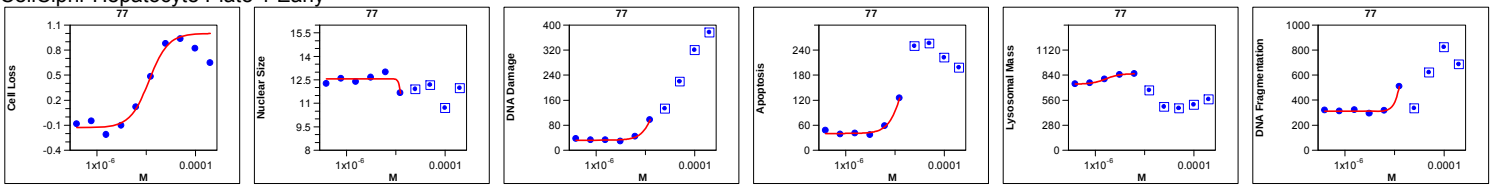
CellCiphr Hepatocyte Plate1 Acute



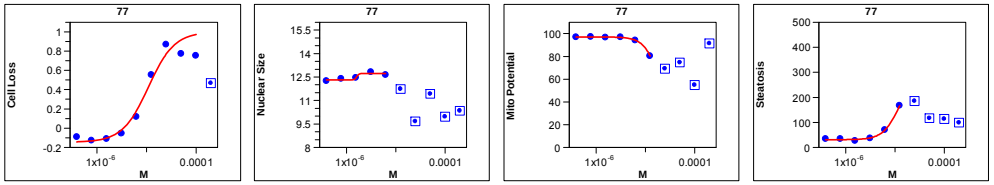
CellCiphr Hepatocyte Plate 2 Acute



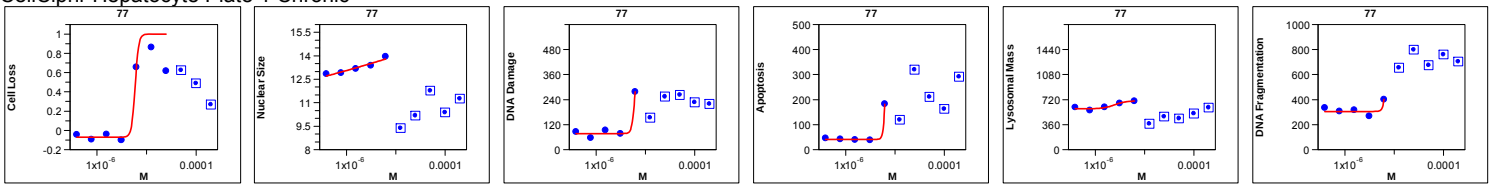
CellCiphr Hepatocyte Plate 1 Early



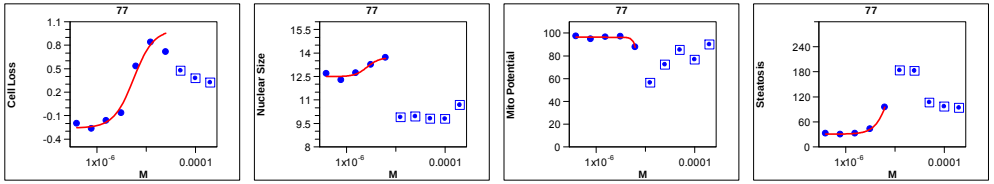
CellCiphr Hepatocyte Plate 2 Early



CellCiphr Hepatocyte Plate 1 Chronic



CellCiphr Hepatocyte Plate 2 Chronic



CellCiphr Hepatocyte Plate 1 Acute

Feature **Cell Loss**				Feature **Nuclear Size**				Feature **DNA Damage**				Feature **Apoptosis**				Feature **Lysosomal Mass**				Feature **DNA Fragmentation**			
Curve Fit				Curve Fit				Curve Fit				Curve Fit				Curve Fit				Curve Fit			
AC50	3.4E-05	Mean	129	AC50	1.1E-03	Mean	10	AC50	3.3E-05	Mean	88	AC50	4.3E-05	Mean	138	AC50	5.3E-06	Mean	592	AC50	3.3E-05	Mean	273
Min	-0.10	StDev	13	Min	11.39	StDev	2	Min	84.92	StDev	19	Min	113.87	StDev	22	Min	329.16	StDev	13	Min	299.39	StDev	15
Max	1.00			Max	9.50			Max	300.00			Max	2800.00			Max	900.00			Max	1000.00		
Slope	-6.65			Slope	0.00			Slope	-4.44			Slope	-7.10			Slope	-0.12			Slope	-11.64		
R^2	0.99			R^2	0.64			R^2	0.98			R^2	0.97			R^2	0.32			R^2	0.83		
Fit QC	**Pass**			Fit QC	**NCF**			Fit QC	**NCF**			Fit QC	**NCF**			Fit QC	**NCF**			Fit QC	**NCF**		

CellCiphr Hepatocyte Plate 2 Acute

Feature **Cell Loss**				Feature **Nuclear Size**				Feature **Mito Potential**				Feature **Steatosis**			
Curve Fit				Curve Fit				Curve Fit				Curve Fit			
AC50	3.3E-05	Mean	128	AC50	1.2E+01	Mean	10	AC50	1.5E-09	Mean	91	AC50	4.9E-06	Mean	162
Min	-0.05	StDev	14	Min	15.16	StDev	3	Min	133.94	StDev	5	Min	133.28	StDev	15
Max	1.00			Max	9.50			Max	40.00			Max	200.00		
Slope	-6.70			Slope	0.13			Slope	0.04			Slope	-1.41		
R^2	0.98			R^2	0.40			R^2	0.57			R^2	0.71		
Fit QC	**Pass**			Fit QC	**NCF**			Fit QC	**NCF**			Fit QC	**NCF**		

CellCiphr Hepatocyte Plate 1 Early

Feature **Cell Loss**				Feature **Nuclear Size**				Feature **DNA Damage**				Feature **Apoptosis**				Feature **Lysosomal Mass**				Feature **DNA Fragmentation**			
Curve Fit				Curve Fit				Curve Fit				Curve Fit				Curve Fit				Curve Fit			
AC50	1.1E-05	Mean	110	AC50	1.3E-05	Mean	13	AC50	2.1E-05	Mean	30	AC50	1.6E-05	Mean	41	AC50	1.6E-06	Mean	724	AC50	1.3E-05	Mean	289
Min	-0.13	StDev	12	Min	12.56	StDev	3	Min	32.12	StDev	60	Min	40.21	StDev	41	Min	856.36	StDev	16	Min	310.83	StDev	21
Max	1.00			Max	9.50			Max	400.00			Max	300.00			Max	739.11			Max	800.00		
Slope	-2.26			Slope	-16.39			Slope	-2.95			Slope	-2.87			Slope	3.11			Slope	-6.20		
R^2	0.94			R^2	0.68			R^2	0.99			R^2	0.98			R^2	1.00			R^2	0.99		
Fit QC	**Pass**			Fit QC	**NCF**			Fit QC	**Pass**			Fit QC	**Pass**			Fit QC	**NCF**			Fit QC	**Pass**		

CellCiphr Hepatocyte Plate 2 Early

Feature **Cell Loss**				Feature **Nuclear Size**				Feature **Mito Potential**				Feature **Steatosis**			
Curve Fit				Curve Fit				Curve Fit				Curve Fit			
AC50	1.1E-05	Mean	113	AC50	1.6E-06	Mean	13	AC50	2.1E-05	Mean	97	AC50	1.2E-05	Mean	35
Min	-0.15	StDev	15	Min	12.73	StDev	2	Min	97.11	StDev	3	Min	30.86	StDev	24
Max	1.00			Max	12.31			Max	5.00			Max	300.00		
Slope	-1.66			Slope	18.24			Slope	-2.78			Slope	-2.61		
R^2	0.96			R^2	0.86			R^2	1.00			R^2	1.00		
Fit QC	**Pass**			Fit QC	**NCF**			Fit QC	**Pass**			Fit QC	**Pass**		

CellCiphr Hepatocyte Plate 1 Chronic

Feature **Cell Loss**				Feature **Nuclear Size**				Feature **DNA Damage**				Feature **Apoptosis**				Feature **Lysosomal Mass**				Feature **DNA Fragmentation**			
Curve Fit				Curve Fit				Curve Fit				Curve Fit				Curve Fit				Curve Fit			
AC50	5.9E-06	Mean	102	AC50	1.2E-04	Mean	13	AC50	6.0E-06	Mean	59	AC50	6.4E-06	Mean	39	AC50	2.5E-06	Mean	616	AC50	6.9E-06	Mean	263
Min	-0.07	StDev	11	Min	20.67	StDev	3	Min	77.18	StDev	31	Min	41.09	StDev	18	Min	702.21	StDev	10	Min	305.36	StDev	16
Max	1.00			Max	9.50			Max	400.00			Max	400.00			Max	587.83			Max	800.00		
Slope	-12.26			Slope	0.16			Slope	-14.63			Slope	-18.95			Slope	3.75			Slope	-14.85		
R^2	0.95			R^2	0.92			R^2	0.98			R^2	1.00			R^2	0.92			R^2	0.76		
Fit QC	**Pass**			Fit QC	**Pass**			Fit QC	**Pass**			Fit QC	**Pass**			Fit QC	**NCF**			Fit QC	**NCF**		

CellCiphr Hepatocyte Plate 2 Chronic

Feature **Cell Loss**				Feature **Nuclear Size**				Feature **Mito Potential**				Feature **Steatosis**			
Curve Fit				Curve Fit				Curve Fit				Curve Fit			
AC50	5.6E-06	Mean	105	AC50	2.6E-06	Mean	13	AC50	8.1E-06	Mean	95	AC50	9.4E-06	Mean	26
Min	-0.26	StDev	16	Min	12.49	StDev	3	Min	96.33	StDev	4	Min	30.52	StDev	24
Max	1.00			Max	13.70			Max	5.00			Max	300.00		
Slope	-2.15			Slope	-3.58			Slope	-8.64			Slope	-2.81		
R^2	0.96			R^2	0.92			R^2	0.94			R^2	1.00		
Fit QC	**Pass**			Fit QC	**Pass**			Fit QC	**Pass**			Fit QC	**Pass**		

-No Curve Fit (NCF)□ - Curve Fit passed QC. AC50 used in the profile

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