

**Supplementary Table S2. Output Parameter Values for Cytoskeleton Integrity Hepatotoxicity Assay**

Output parameter	Concentration (μM)	n	Average ± SD (max)	Average ± SD (min)	Z'-Factor	Assay window
Positive W2						
Aflatoxin B1	30	8	3,676 ± 194	77 ± 11	0.83	48.1
Aflatoxin G1	30	8	3,569 ± 166	108 ± 33	0.83	33.1
Staurosporine	3	8	3,708 ± 103	624 ± 225	0.68	5.9
Mitomycin C	30	8	3,626 ± 170	312 ± 298	0.58	11.6
Doxorubicin	10	8	3,447 ± 223	8 ± 17	0.79	452.0
% Positive W2						
Aflatoxin B1	30	8	77 ± 2	6 ± 1	0.86	12.9
Aflatoxin G1	30	8	75 ± 1	6 ± 2	0.87	12.2
Staurosporine	3	8	78 ± 1	18 ± 7	0.60	4.3
Mitomycin C	30	8	75 ± 2	9 ± 8	0.58	8.5
Doxorubicin	10	8	76 ± 2	25 ± 46	-1.79	3.1
Total cells						
Aflatoxin B1	30	8	4,796 ± 260	1,319 ± 220	0.59	3.6
Aflatoxin G1	30	8	4,731 ± 207	1,739 ± 226	0.57	2.7
Staurosporine	3	8	4,764 ± 118	3,479 ± 115	0.46	1.4
Mitomycin C	30	8	4,829 ± 248	2,996 ± 751	-0.64	1.6
Doxorubicin	10	8	4,542 ± 245	8 ± 17	0.83	586.1
Positive W2 mean stain area						
Aflatoxin B1	30	8	381 ± 19	292 ± 25	-0.47	1.3
Aflatoxin G1	30	8	384 ± 19	267 ± 19	0.03	1.4
Staurosporine	3	8	367 ± 13	268 ± 39	-0.58	1.4
Mitomycin C	30	8	379 ± 21	153 ± 5	0.66	2.5
Doxorubicin	10	8	380 ± 14	2,147 ± 4,029	-5.86	0.2
Positive W2 mean stain integrated intensity						
Aflatoxin B1	30	8	1,278,424 ± 93,668	442,620 ± 32,993	0.55	2.9
Aflatoxin G1	30	8	1,202,916 ± 91,737	431,319 ± 31,497	0.52	2.8
Staurosporine	3	8	1,173,527 ± 110,292	503,129 ± 78,634	0.15	2.3
Mitomycin C	30	8	1,206,085 ± 100,744	231,783 ± 10,728	0.66	5.2
Doxorubicin	10	8	1,170,052 ± 72,089	8,371,646 ± 15,837,137	-5.63	0.1

*(continued)*

**Supplementary Table S2. (Continued)**

Output parameter	Concentration (μM)	<i>n</i>	Average ± SD (max)	Average ± SD (min)	Z'-Factor	Assay window
Positive W2 mean stain average intensity						
Aflatoxin B1	30	8	5,676 ± 434	2,561 ± 92	0.49	2.2
Aflatoxin G1	30	8	5,301 ± 318	2,733 ± 74	0.54	1.9
Staurosporine	3	8	5,395 ± 403	3,166 ± 73	0.36	1.7
Mitomycin C	30	8	5,385 ± 365	2,564 ± 71	0.54	2.1
Doxorubicin	10	8	5,213 ± 305	1,639 ± 3,037	-1.81	3.2
All nuclei mean area (W1)						
Aflatoxin B1	30	8	77 ± 1	47 ± 1	0.77	1.7
Aflatoxin G1	30	8	77 ± 1	47 ± 1	0.78	1.6
Staurosporine	3	8	81 ± 1	44 ± 3	0.65	1.8
Mitomycin C	30	8	76 ± 1	57 ± 2	0.62	1.3
Doxorubicin	10	8	73 ± 3	9 ± 16	0.10	8.3
All nuclei mean integrated intensity (W1)						
Aflatoxin B1	30	8	168,871 ± 5,151	98,355 ± 7,440	0.46	1.7
Aflatoxin G1	30	8	167,729 ± 6,721	113,339 ± 3,869	0.42	1.5
Staurosporine	3	8	174,230 ± 6,485	106,881 ± 3,279	0.57	1.6
Mitomycin C	30	8	161,457 ± 13,785	129,901 ± 13,946	-1.64	1.2
Doxorubicin	10	8	101,617 ± 17,929	7,704 ± 14,438	-0.03	13.2

Images acquired with 10× objective. W1 = Hoechst; W2 = AF488-Phalloidin.