Cobalt(II) Diphenylazodioxide Complexes Induce Apoptosis in SK-HEP-1 Cells

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Supporting Information

Contents

1. Effect of cobalt(II) diphenylazodioxide complexes on PARP cleavage of additional cell lines

HEK 293, HT-29, MCF-7, and PC-3 cells were subjected to treatment for 12 h with each of compounds **1** and **2** at 2 μM and 10 μM concentrations, and western blots were used to assess the cleavage of PARP, as a marker of apoptosis. Figures S1-S4 below show that compounds **1** and **2** did not induce extensive PARP cleavage compared with the DMSO vehicle control in these cell lines.

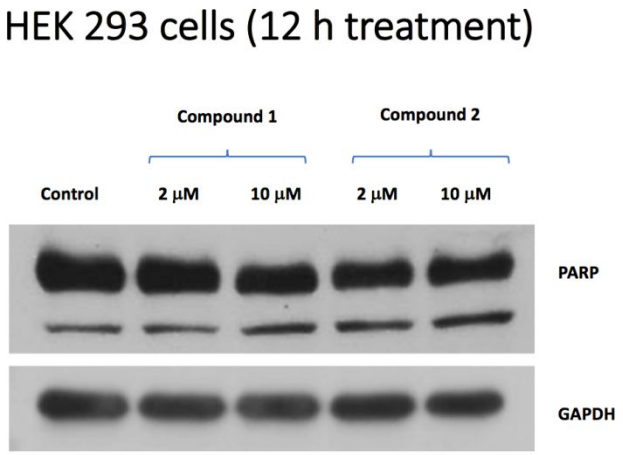


Figure S1. Effect of compounds **1** and **2** on PARP cleavage in HEK 293 cells.

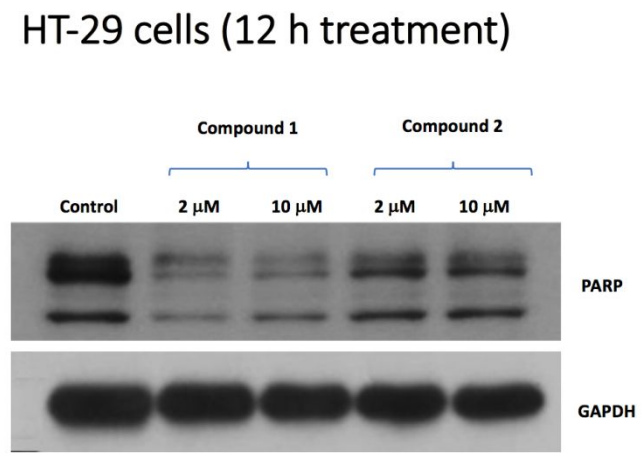


Figure S2. Effect of compounds **1** and **2** on PARP cleavage in HT-29 cells.

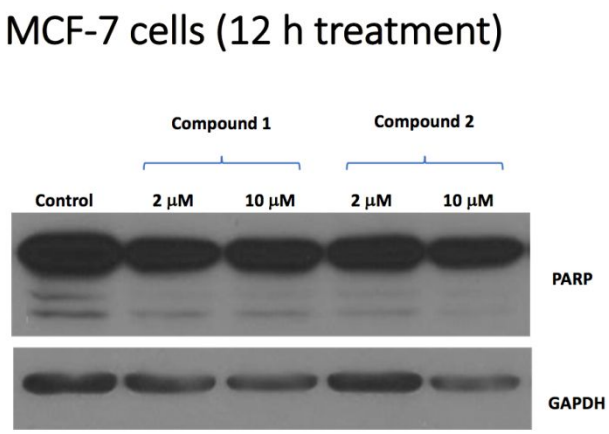


Figure S3. Effect of compounds **1** and **2** on PARP cleavage in MCF-7 cells.

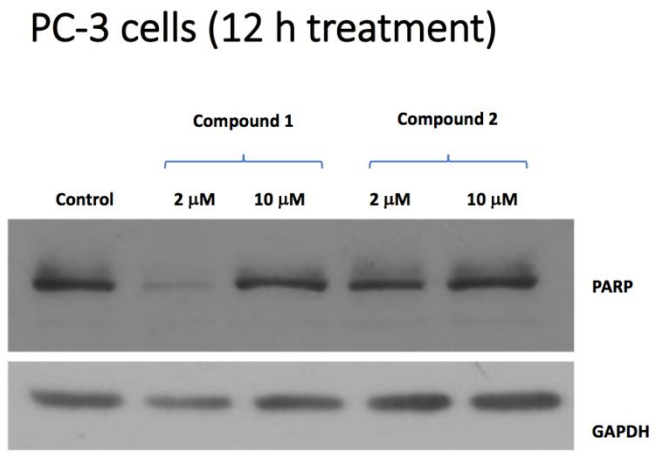
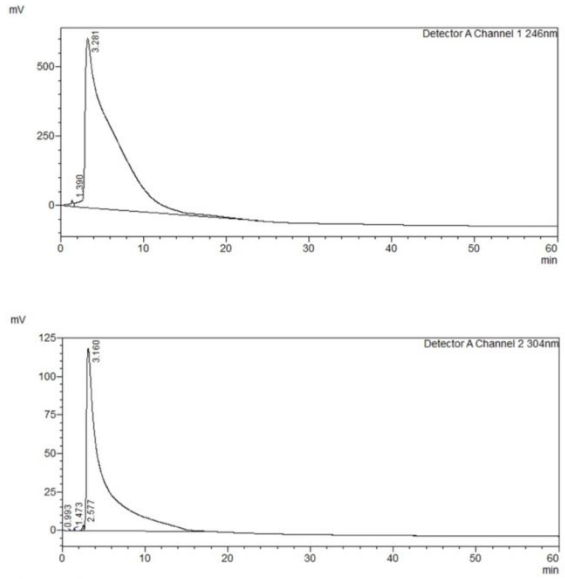


Figure S4. Effect of compounds **1** and **2** on PARP cleavage in PC-3 cells.

2. HPLC chromatograms of cobalt(II) diphenylazodioxide complexes

HPLC analysis of compounds **1** and **2** was performed, supplementing the characterization provided in the initial report of these compounds.[1] The analyses were performed on a Shimadzu LC20 HPLC with a 190-320 nm UV detector. The compounds were eluted on a reverse-phase C_{18} column (Waters Corporation), with an isocratic mobile phase of pure acetonitrile. Figure S5 below shows chromatograms of compound **1** with detection wavelengths of 246 and 304 nm, and Figure S6 shows the chromatogram of compound **2** with detection wavelengths of 282 and 305 nm. The product peak area is seen to be >98% of the total in all cases.



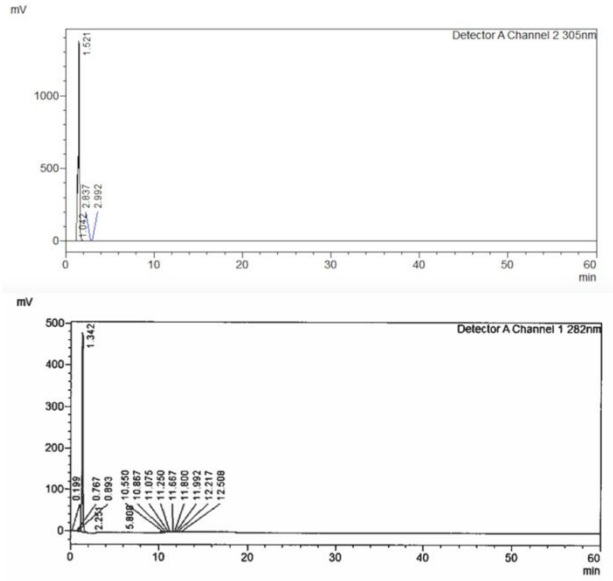
Peaks from wavelength 246 nm

Peak#	Ret. Time	Area	Height	Area%
1	1.390	679276	22502	0.494
2	3.281	136777955	609136	99.506
Total		137457231	631638	100.000

Peaks from wavelength 304 nm

Peak#	Ret. Time	Area	Height	Area%
1	0.993	1080	164	0.007
2	1.473	13887	1790	0.090
3	2.577	55736	4035	0.361
4	3.160	15370264	118298	99.542
Total		1540967	124287	100.000

Figure S5. Chromatograms of compound **1** at 246 and 304 nm detection wavelengths.



Peaks from wavelength 305 nm

Peak#	Ret. Time	Area	Height	Area%
1	1.042	4806	540	0.030
2	1.521	15816686	1378967	99.933
3	2.837	4179	202	0.026
4	2.992	1617	150	0.010
Total		15827288	1379859	100.000

Peaks from wavelength 282 nm

Peak#	Ret. Time	Area	Height	Area%
1	0.199	1484	135	0.043
2	0.767	6739	804	0.195
3	0.893	16359	1534	0.473
4	1.342	3417463	479303	98.721
5	2.251	2288	233	0.066
6	5.808	1683	79	0.049
7	10.550	4029	127	0.116
8	10.867	1690	128	0.049
9	11.075	1280	127	0.037
10	11.250	1993	124	0.058
11	11.667	1773	123	0.051
12	11.800	1268	128	0.037
13	11.992	1275	125	0.037
14	12.217	1117	110	0.032
15	12.508	1299	94	0.038
Total		3461739	483172	100.000

Figure S6. Chromatograms of compound **2** at 282 and 305 nm detection wavelengths.

3. References

1. Emhoff, K. A.; Balaraman, L.; Simpson, S. R.; Stromyer, M. L.; Kalil, H. F.; Beemiller, J. R.; Sikatzki, P.; Eshelman, T. S.; Salem, A. M. H.; DeBord, M. A.; Panzner, M. J.; Youngs, W. J.; Boyd, W. C. Synthesis and Characterization of Cobalt(II) *N*,*N*′-Diphenylazodioxide Complexes. *ACS Omega* **2018,** *3,* 16021-16027.