

Supplementary Materials

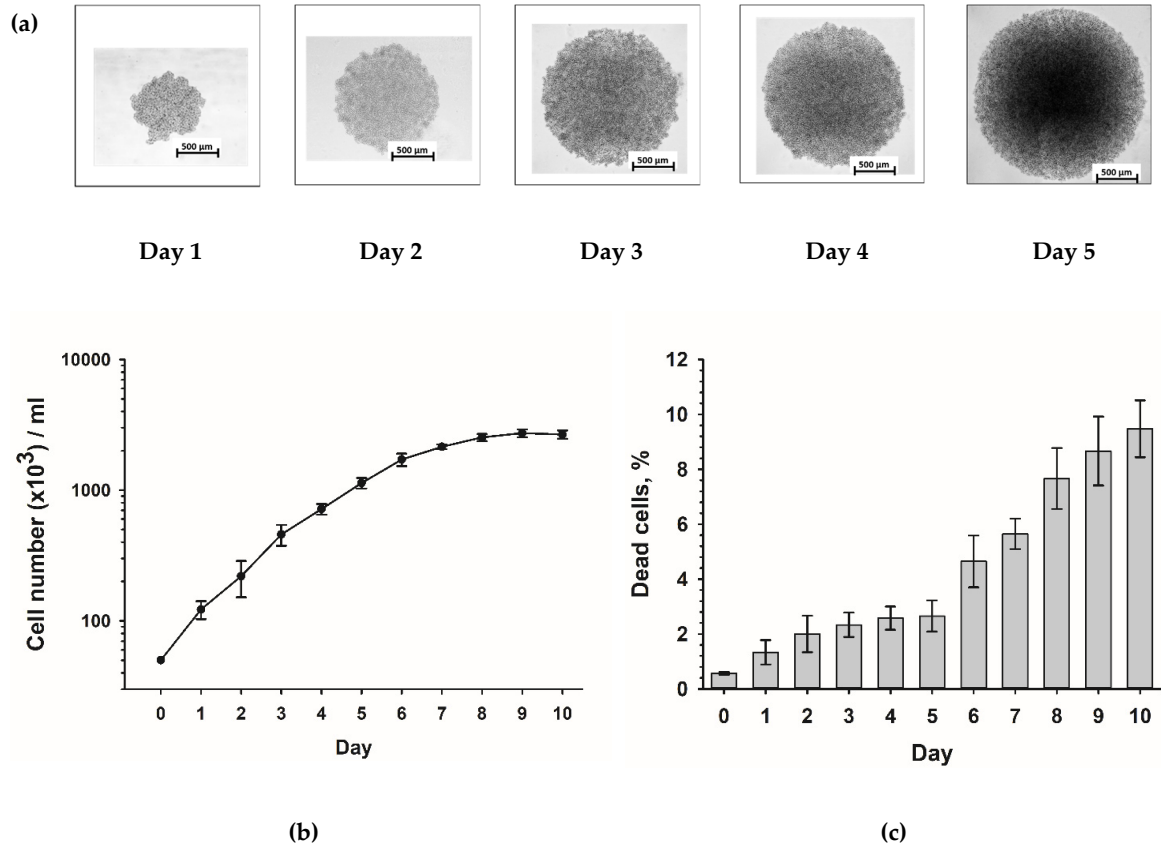


Figure S1. Micrographs of THP-1 cell cultures during their growth in the first 5 days after seeding of 5000 cells in a U-shaped well. Bar: 500 μm . Growth curve of THP-1 cell culture (b) and the percent of dead cells in culture during the growth (c).

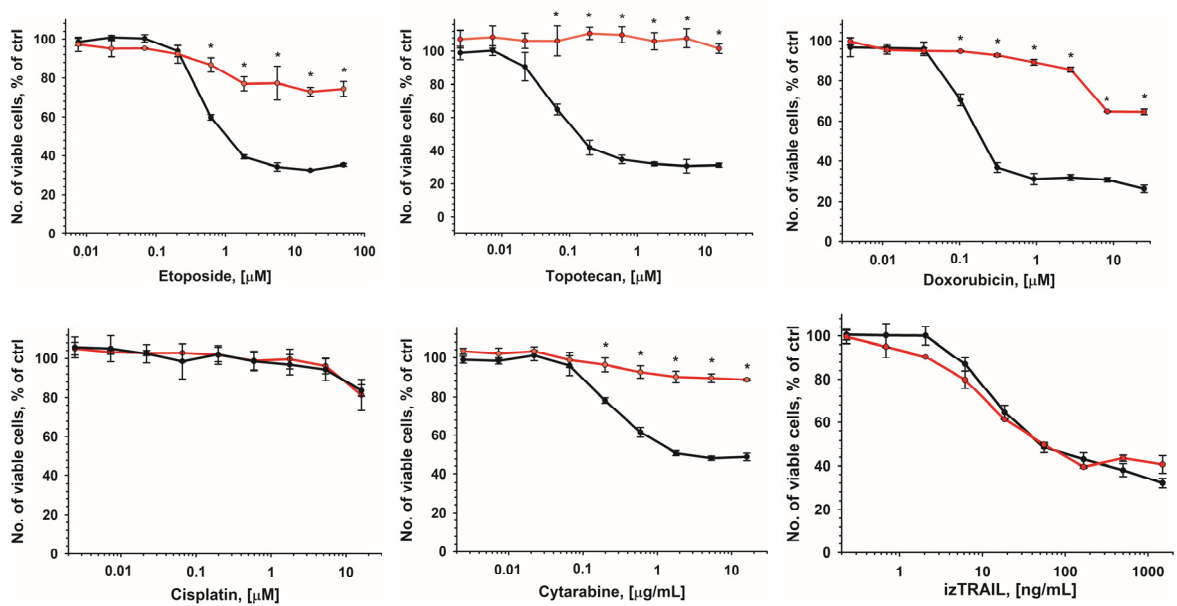


Figure S2. Cytotoxic effect of izTRAIL and different drugs added to HL-60 cell cultures at 1 day (black line) and 5 days (red line) after cell seeding. Data are presented as mean \pm standard deviation ($n \geq 3$). * $p < 0.05$, compared to HL-60 cell cultures in 1 day.

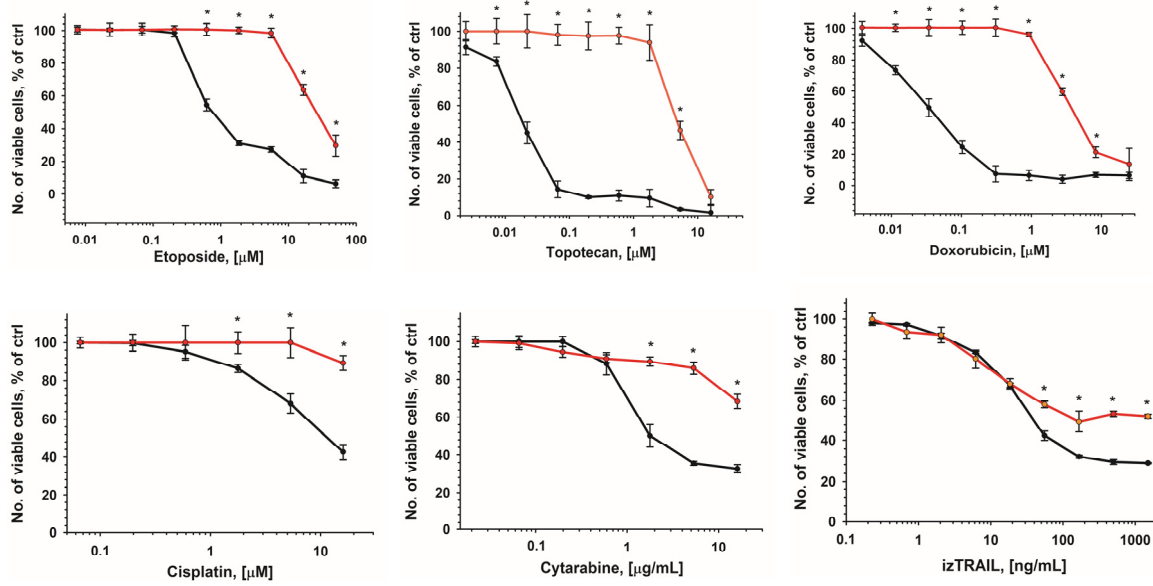


Figure S3. Cytotoxic effect of izTRAIL and different drugs added to MV4-11 cell cultures at 1 day (black line) and 5 days (red line) after cell seeding. Data are presented as mean \pm standard deviation ($n \geq 3$). * $p < 0.05$, compared to MV4-11 cell cultures in 1 day.

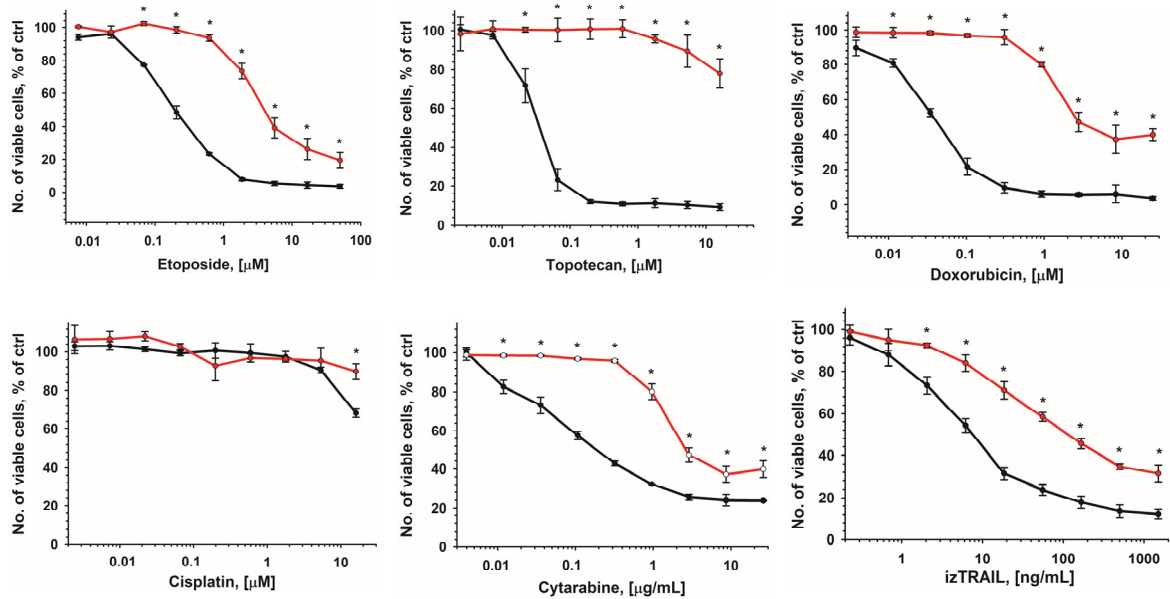


Figure S4. Cytotoxic effect of izTRAIL and different drugs added to U937 cell cultures at 1 day (black line), and 5 days (red line) after cell seeding. Data are presented as mean \pm standard deviation ($n \geq 3$). * $p < 0.05$ compared to U937 cell cultures in 1 day.

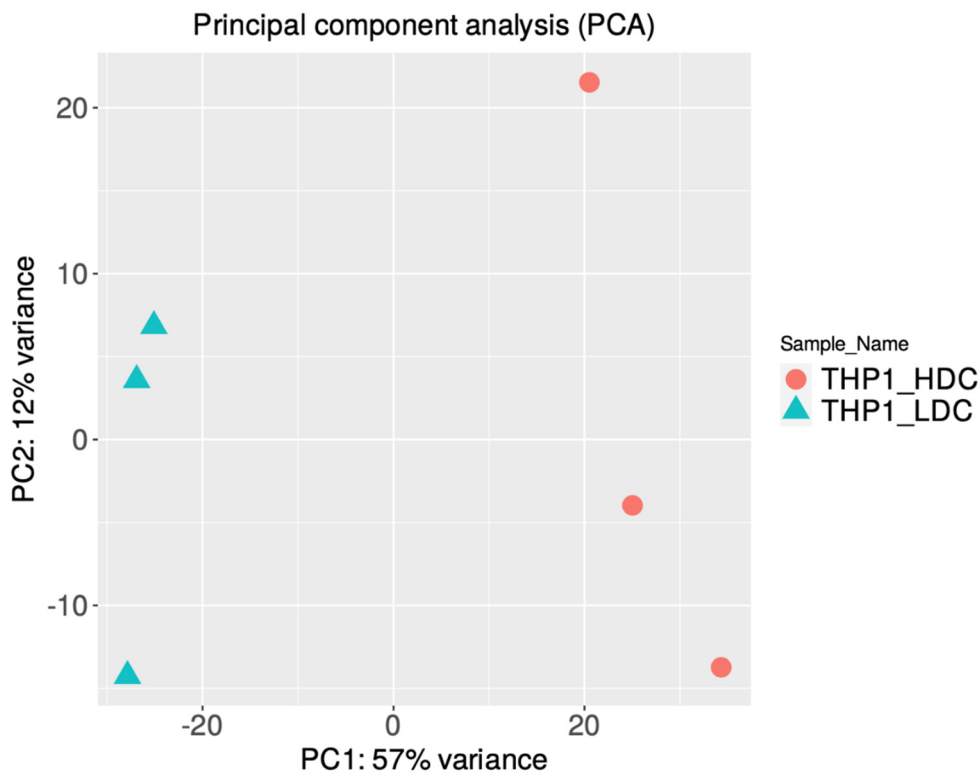


Figure S5. Principal component analysis (PCA) for two groups—THP-1LDC and THP-1HDC in the coordinates of principal component 1 (PC1) and principal component 2 (PC2). $n=3$ for each group.

Table S1. Differentially expressed genes (DEG) of THP-1HDC cells, compared to THP-1LDC cells (Log₂FC≥1, Log₂FC≤-1, p<0.05).

NAME	log2FC	NAME	log2FC	NAME	log2FC
MT1G	-2.673292918	CREBRF	1.033918313	RUFY4	1.194376081
MT2A	-1.859035436	SCD	1.04152174	PPFIA4	1.212961461
MT1E	-1.583971162	GNG7	1.047113929	ARL4C	1.237101689
GAL	-1.500150535	SLC9A7	1.047977605	COL9A2	1.240389703
RGS16	-1.481704527	NOP53	1.048085976	MYLIP	1.245911168
SLC7A5	-1.464930232	HSH2D	1.049802981	N4BP2L1	1.251799491
CD1D	-1.437369466	SLC37A2	1.050910694	TNF	1.261110771
MT1X	-1.316147032	BNIP3L	1.058338052	FADS1	1.26228806
SLC30A1	-1.293095248	DDIT4	1.058916216	CYBB	1.267068338
ARRDC4	-1.27888602	GIPC3	1.061129645	SDK2	1.271901614
SAMD11	-1.263399519	C1orf228	1.064941298	LDLR	1.301157687
CD320	-1.258605578	ALDOC	1.066344487	HIP1	1.313726161
MAP1B	-1.253641845	CLIP2	1.069613	LSP1	1.327364517
TLN2	-1.160119308	XYLT1	1.071258984	INSIG1	1.355498208
KCNK5	-1.117704613	CACNA2D4	1.074251364	CD209	1.365631512
NLN	-1.110228923	CX3CR1	1.076556852	BMF	1.372732581
ODC1	-1.064003454	PRLR	1.077248824	SULF2	1.426014908
TRMT61A	-1.052858193	ABTB1	1.077902363	RAB37	1.430299818
ID3	-1.051754157	SLAMF7	1.080117863	SLC44A2	1.448042371
PRADC1	-1.050452163	LY86	1.082216476	RASGRP4	1.449425188
FKBP4	-1.045754801	TNFAIP3	1.084784159	SH2D3C	1.476696833
CCDC86	-1.042483453	MPEG1	1.093231745	VSIR	1.482963513
ID1	-1.029890874	PTGS1	1.10000146	RASSF4	1.491612012
MT1F	-1.029680898	ADGRA2	1.100855683	YPEL3	1.527142603
PYCR3	-1.024595041	HMX3	1.102594547	EPAS1	1.572181021
IPO4	-1.017335363	YPEL5	1.102914805	DNAJC5B	1.60240274
POLR3G	-1.007739638	ETS2	1.104228052	IL7R	1.64604079
RAB3IL1	-1.006222418	TIMP3	1.115829584	C6orf223	1.650117623
NPM3	-1.002785842	F13A1	1.117008274	ABCA1	1.687903624
CD37	1.003189914	KLHL24	1.117846262	MYO1G	1.747730076
CCNG2	1.003902137	NCOA3	1.121935607	FAM129C	1.787757336
PLXNC1	1.00616129	METTL7A	1.122633504	FCER1G	1.818516103
EVI2A	1.006305557	DNAH1	1.122635016	SREBF1	1.835649169
VENTX	1.007574629	FOXO4	1.127891002	VAT1L	1.870515867
TTLL3	1.008139218	POU6F1	1.13835483	ITGAX	1.899674964
LMTK3	1.010503476	SECTM1	1.140299485	BTG2	1.964295274
DOK3	1.011349184	FOS	1.144208888	FADS2	2.198012062
CSMD3	1.012609268	P2RX1	1.156721402		
FAM20C	1.016540759	KLF12	1.167426254		
C6orf48	1.01672642	HCK	1.17484792		
PBXIP1	1.020240727	RTN2	1.18246589		
LRMP	1.025362803	SPEF2	1.189692632		

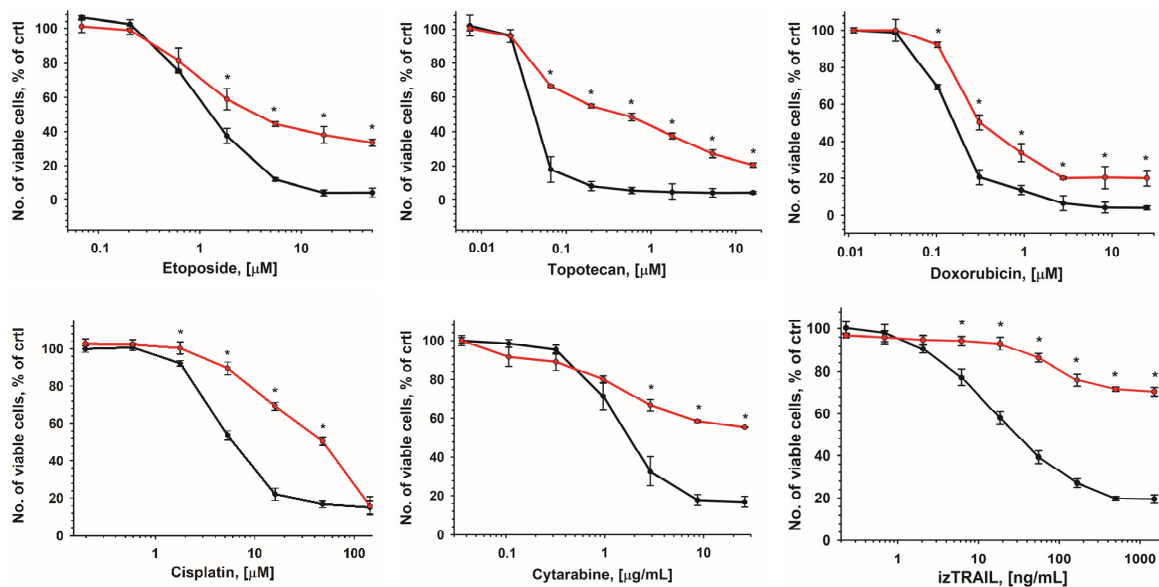


Figure S6. Cytotoxic effect of izTRAIL and different drugs added to THP-1LPS (red line) and THP-1LDC (black line) cells. Data are presented as mean \pm standard deviation ($n \geq 3$). * - $p < 0.05$, compared to THP-1LDC cells.

Table S2. The percentage of THP-1LDC, THP-1HDC, and THP-1LPS cells bearing CD markers on their surface. Data are shown as mean \pm standard deviation ($n=3$).

CD markers	THP-1LDC	THP-1HDC	THP-1 -LPS
Co-receptor for LPS (<i>CD14</i>)	-	-	12 \pm 1%
SCARB3 (<i>CD36</i>)	-	-	10 \pm 1%
ICAM-1 (<i>CD54</i>)	-	-	53 \pm 1%
TLR4 (<i>CD284</i>)	-	-	14 \pm 4%

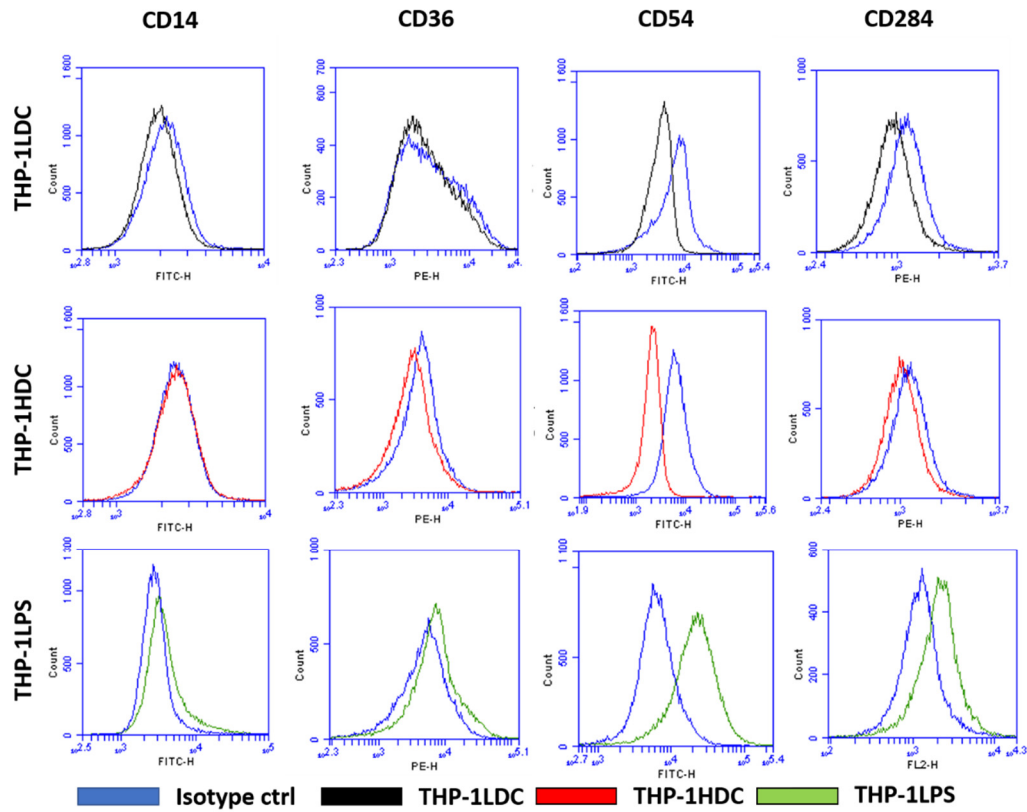
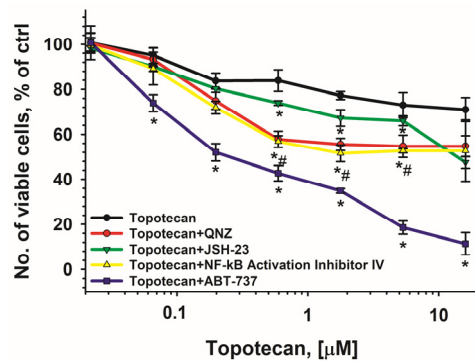


Figure S7. Histograms of expression of the pro-inflammatory markers CD14, CD36, CD54, and CD284 on THP-1LDC, THP-1HDC, and THP-1LPS cells.

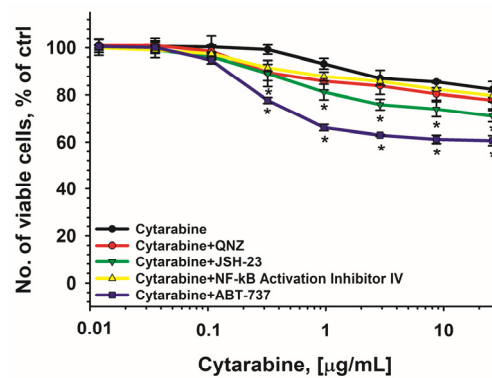
Table S3. The concentration of cytokines in growth media of THP-1LDC, THP-1HDC, and THP-1LPS cell cultures, normalized to 1×10^5 cells/mL. Data are given as mean \pm standard deviation (n=3).

Cytokine	Concentration, pg/mL		
	THP-1LDC	THP-1HDC	THP-1LPS
IL-1 β	0.22 \pm 0.07	0.72 \pm 0.06	6.9 \pm 0.4
IL-1ra	37 \pm 6	139.5 \pm 9.0	436 \pm 18
IL-2	0.6 \pm 0.1	0.37 \pm 0.05	12 \pm 1
IL-4	-	0.0231\pm0.0018	0.52\pm0.04
IL-5	1.8 \pm 0.4	1.0 \pm 0.1	15.8 \pm 0.4
IL-6	0.3 \pm 0.001	0.9 \pm 0.04	101 \pm 4
IL-7	1.6 \pm 0.3	0.3 \pm 0.1	3.1 \pm 0.1
IL-8	1.6 \pm 0.2	0.9 \pm 0.1	8 \pm 1
IL-9	2.1 \pm 0.3	34.2 \pm 2.0	3206 \pm 220
IL-10	2.0 \pm 0.4	0.21 \pm 0.03	2.6 \pm 0.2

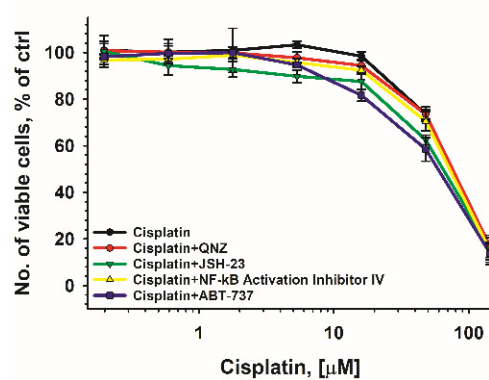
IL-12p70	0.3±0.1	0.09±0.02	1.8±0.4
IL-13	0.4±0.1	0.06±0.01	0.8±0.1
IL-15	17±5	5.3±0.5	56±2
IL-17A	0.9±0.2	0.53±0.02	11±1
Eotaxin	-	0.031±0.005	0.86±0.03
Basic FGF	-	1.5±0.1	28±1
G-CSF	-	4.9±0.6	117±8
GM-CSF	-	0.15±0.01	2.1±0.1
IFN-gamma	0.6±0.1	0.42±0.02	7.5±0.2
IP-10	-	650.3±67.1	1836±137
MCP-1	0.5±0.1	30.5±1.1	5063±2311
MIP-1 α	-	2.8±0.3	31±4
MIP-1 β	2.1±0.3	418±18	733±65
PDGF-BB	5±1	18±2	28±2
Rantes	41±5	514±41	155±12
TNF- α	3±1	57±2	364±12
VEGF	27±5	88±11	103±9



(a)



(b)



(c)

Figure S8. Effect of the inhibitors of NF-κB (JSH-23 (100 nM), QNZ (40 μM), and NF-κB Activation Inhibitor IV (50 nM)) and of the anti-apoptotic proteins of the Bcl-2 family (ABT-737, 3 μM) on increased resistance of THP-1HDC cells to topotecan (a), cytarabine (b), and cisplatin (c). Data are presented as the mean \pm standard deviation. ($n \geq 3$). *, # $p < 0.05$, compared to control (cells treated with DNA-damaging agent only).