

Supplemental Information

A real-time cell-electronic sensing method for assessment of toxicity of water contaminants

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Table S1. RT-CES assay detects the effects of four HBQs on viability of T24 cells after 24 h (*n*=3)

HBQs	DCBQ	DCMBQ	TCBQ	DBBQ
24 h IC₅₀ (μ M)	1.9	58.7	95.6	21.4
95% CI (μ M)	1.7~2.2	56.4~62.1	91.5~100.0	16.5~27.8

Table S2. Neutral Red assay detects the effects of four HBQs on viability of T24 cells after 24 h (*n*=4)

HBQs	DCBQ	DCMBQ	TCBQ	DBBQ
24 h IC₅₀ (μ M)	11.4	147.7	113.4	45.7
95% CI (μ M)	10.2~12.8	143.4~152.1	108.6~118.4	42.5~49.2

Table S3. MTS assay detects the effects of four HBQs on viability of T24 cells after 24 h ($n=3$)

HBQs	DCBQ	DCMBQ	TCBQ	DBBQ
24 h IC₅₀ (μ M)	94.5	110.1	150.7	142.0
95% CI (μ M)	86.9-102.7	106.5-113.8	146.8-154.6	133.1-151.5

Table S4. Comparison of the 24 h-IC₅₀ of HBQs on T24 cells detected by different assays (μ M)

Methods	RT-CES	NRU	MTS
DCBQ	1.9	11.4	94.5
DCMBQ	58.7	147.7	104.1
TCBQ	95.6	113.4	202.5
DBBQ	21.4	45.7	156.1

Table S5. Ranking cytotoxicity of HBQs on T24 by different assays

Methods	Cytotoxicity of HBQs on T24
RT-CES	DCBQ > DBBQ > DCMBQ > TCBQ
NRU	DCBQ > DBBQ > TCBQ > DCMBQ
MTS	DCBQ > DCMBQ > DBBQ > TCBQ