Effects of Di-(2-Ethylhexyl) Phthalate on Oxidative Stress and Lipid Metabolism in Livers of Male *Xenopus tropicalis*

SUPPLEMENTARY MATERIALS

Gas chromatography tandem mass spectrometer

The analytical conditions were as follows: Agilent HP-5 MS column (30 × 250 μm × 0.25 μm); column temperature: held at 80℃ for 1 min, increased at a speed of 20℃/min, to 290℃ and held for 5 min; Inlet temperature:280℃, MSD transmission line temperature:280℃, flow rate: 1.0 mL/min; MS ionization temperature: 230℃, MS quadrupole temperature: 150℃. The retention time of DEHP is 11.997 min, and m/z are 149 and 167.

Supplementary Table S1: Concentrations of DEHP in the surface water over the world.

Location	Concentration	Unit	References
Changjiang River Estuary	0.26	ng/L	Junaid et al., 2018
Changjiang River Estuary	7.67	ng/L	Zhang et al., 2017
The Pearl River, Guangdong	328.74	ng/L	Weizhen et al., 2020
The Songhua River, Heilongjiang	1752.65	ng/L	Pu et al., 2020
Chaohu Lake, Anhui	0.576	μg/L	He et al., 2013
Poyang Lake, Jiangxi	0.896	μg/L	Ai et al., 2021
Taihu Lake, Jiangsu	1.29	μg/L	Gao et al., 2019
Three Gorges Reservoir Area, Hubei	5.421	μg/L	Liu et al., 2014a
The Pearl River, Guangdong	5.62	μg/L	Weizhen et al., 2020
Qiantang River, Jiangsu	6.24	μg/L	Sun et al., 2013
Songhua River, Heilongjiang	11.6	μg/L	Gao et al., 2014
Jiulong River, Fujian	12.43	μg/L	Li et al., 2017
Taiwan	18.5	μg/L	Wu et al., 2018
Taihu Lake, Jiangsu	23.9	μg/L	Wang et al., 2003
The Yangtze River, Jiangsu	28.403	μg/L	Zhang et al., 2018
The Pearl River, Guangdong	29.5	μg/L	Liu et al., 2014b
The Pearl River, Guangdong	35.7	μg/L	Cheng et al., 2019
The Pearl River, Guangdong	50	μg/L	Mu et al., 2020
the Yangtze River, Hubei	54.73	μg/L	Wang et al., 2008
urban lakes, Guangdong	58.9	μg/L	Zeng et al., 2009
Surface water, U. S. A	97.8	μg/L	Fromme et al., 2002
Haihe River, Tianjin	101.1	μg/L	Zhang et al., 2018
The Yellow River, Shandong	109.93	μg/L	Sha et al., 2007
Haihe River, Tianjin	189.84	μg/L	Liu et al., 2020
Ogun river catchments, Nigeria	480	μg/L	Fromme et al., 2002
Kunming Lake, Yunnan	1.39	mg/L	Junaid et al., 2018
Port Elizabeth, South Africa	2.306	mg/L	Fatoki and Noma, 2002
The Yellow River, Shandong	6.35	mg/L	Liu et al., 2014b
Liao River, Liaoning	13.050	mg/L	Junaid et al., 2018

Supplementary Table S2: Primer sequences for the assessment of gene expression using real-time quantitative PCR.

Gene	Abbreviation	Primer sequence (5' to 3')	Reference
Superoxide dismutase	sod	F: TTCAACCCAGAGAGCAAGACTC	Wallace et al., 2020
		R: GGAGACCAACCAACAGAAACTAA	
Catalase	cat	F: CAGACAGACTGGTGGTGAGC	Wallace et al., 2020
		R: ACAGGGATGAGCGGGTAA	
Glutathione S-transferase	gst	F: ATTGCGTGGGAGATGAGGTG	Wallace et al., 2020
		R: ATTGTGGGATAGGGGGCAAG	
Glutathione peroxidase	gpx	F: CGAACCCAACTTCCCCTTGT	Wallace et al., 2020
		R: TAGGATACGGAAGTTGCCCC	
Peroxisome proliferator activated receptor alpha	ppar-α	F: CAGGACACTAAGGACGCACC	Zhu et al., 2017
		R: GGATGGCTCTGGCTTTCACTT	
Ornithine decarboxylase	odc	F: GGGCAAAAGAGCTTAATGTGG	Wallace et al., 2020
		R: CATCGTGCATCTGAGACAGC	

Supplementary Table S3: Measurement of DEHP in each treatment.

Time	Nominal Dosage (µg/L)	Measured concentrations of DEHP (µg/L) (n=3)
T_0	0 (Control)	n.d.a
	0.2	0.18 ± 0.016
	0.6	0.61 ± 0.103
	1.8	1.78 ± 0.119
	5.4	5.94 ± 0.246
T_{48}	0 (Control)	n.d.a
	0.2	0.17 ± 0.018
	0.6	0.50 ± 0.072
	1.8	1.62 ± 0.097
	5.4	5.28 ± 0.290
[a]n.d.=Not detect.		

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