Human biomonitoring of essential, nonessential, rare earth, and noble elements in placental tissues

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Table S1a. Recovery (R) values for examined trace elements obtained with SRMs by ICP-MS.

Element	Internal standard	Whole blood Level-1		R(%)	Whole blood Level-2		R(%)
		Measured	Declared		Measured	Declared	
Al (µg/L)	Li	11.0	11.2	98.2	72.1	71.8	100.4
Sc (µg/L)	Li	0.050	0.046	108.7	0.059	0.055	105.4
Ti (µg/L)	Ge	15.96	14	114	17	18	94.4
Cr (µg/L)	Ge	0.79	0.82	96.3	12.1	12.4	97.6
Mn (µg/L)	In	19.0	20.1	94.5	33.2	32.7	101.5
Co (µg/L)	Ge	0.25	0.23	108.6	6.1	6.0	101.7
Ni (µg/L)	In	1.24	1.41	88.1	17.8	18.5	96.2
Cu (µg/L)	In	643	645	99.7	1245	1248	99.8
Zn (mg/L)	In	4.79	4.81	99.5	8.3	8.406	98.7
Ga(µg/L)	Ge	0.020	0.022	90.9	0.031	0.030	103.3
As (µg/L)	Ge	6.39	6.32	101.1	15.3	16.3	93.9
Se (µg/L)	In	101	104	97.1	267	264	101.1
Rb (mg/L)	In	1.50	1.47	102.0	1.41	1.44	97.9
Sr (µg/L)	In	25	24	104.2	23	24	95.8
Y (µg/L)	Ge	0.085	0.092	92.4	121	123	98.4
Mo (µg/L)	Ge	0.83	0.80	103.8	6.8	6.6	103
Ru (µg/L)	In	0.046	<0.050	92	0.046	<0.050	92
Rh (µg/L)	In	0.018	<0.020	90	0.018	<0.020	90
Pd (µg/L)	In	0.009	<0.010	90	0.009	<0.010	90

Cd (µg/L)	Ge	0.68	0.67	101.5	6.6	6.5	101.5
Ba (µg/L)	Ge	540	542	99.6	541	535	101.1
Ce (µg/L)	In	0.119	0.122	97.5	0.120	0.124	96.8
Pr (µg/L)	In	0.022	0.024	91.7	0.022	0.025	88
Nd (µg/L)	In	0.097	0.096	101	0.098	0.099	98.9
Sm (µg/L)	In	0.029	0.027	107.4	0.022	0.024	91.7
Eu (µg/L)	In	0.010	0.011	90.9	0.010	0.011	90.9
Gd (µg/L)	In	0.011	0.012	91.7	0.011	0.012	91.7
Er (µg/L)	In	0.008	0.009	88.9	0.011	0.010	101
Yb (µg/L)	In	0.008	0.009	88.9	0.011	0.010	101
Hg (µg/L)	In	1.94	1.97	98.5	14.3	15.2	94.1
Pb (µg/L)	In	14.6	14.8	98.6	340	336	101.2
Th (µg/L)	In	0.011	0.012	91.6	0.010	0.011	90.9
U (µg/L)	In	0.17	0.18	94.4	0.11	0.12	91.7

Table S1b. The standard addition recovery (R) experiment for selected trace elements in placental tissues.

Element	Internal standard	R(%)	
Tb	In	97.8*	101.6**
Dy	In	99.8*	99.5**
Ho	In	101.2*	97.8**
Lu	In	98.4*	103**
Re	In	99.2*	98.1**
Os	In	97.9*	99.1**
Ir	In	102.1*	101.9**
Pt	In	97.7*	98.9**
Au	In	98.6*	97.1**
Bi	In	98.9*	99.6**

*spiked with 10 µg/L; ** spiked with 20 µg/L.