

Table S1. Wild rat species

Table S2. Microwave operating conditions for teeth and blood digestion

Table S3. Detailed analytical conditions of ICP-MS.

Table S4. Detailed analytical conditions of LA-ICP-MS.

Table S1. Wild rat species

No.	ID	Species	Sex	Site
1	LK1	<i>Rattus rattus</i>	Male	Lukanga
2	LK2	<i>Rattus rattus</i>	Female	Lukanga
3	CH1	<i>Rattus rattus</i>	Female	Chowa
4	CH2	<i>Rattus rattus</i>	Female	Chowa
5	CH3	<i>Rattus rattus</i>	Male	Chowa
6	CH4	<i>Rattus rattus</i>	Male	Chowa
7	CH5	<i>Rattus rattus</i>	Male	Chowa
8	MK1	<i>Rattus rattus</i>	Female	Makululu
9	MK2	<i>Rattus rattus</i>	Male	Makululu
10	MK3	<i>Rattus rattus</i>	Female	Makululu
11	MK4	<i>Rattus rattus</i>	Male	Makululu
12	MK5	<i>Rattus rattus</i>	Male	Makululu
13	MW1	<i>Rattus rattus</i>	Female	Mutwe Wansofu
14	MW2	<i>Rattus rattus</i>	Male	Mutwe Wansofu
15	MW3	<i>Rattus rattus</i>	Male	Mutwe Wansofu

Samples analyzed after exclusion of the non- *R. rattus* rat species, final sample size was n = 2 (LK), n = 5 (CH), n = 5 (LK), n = 5 (MK) and n = 3 (MW), respectively.

Table S2. Microwave operating conditions for teeth and blood digestion.

Teeth		Blood	
Temperature (°C)	Time (min)	Temperature (°C)	Time (min)
160	5	160	5
190	20	190	10
200	20	75	10
100	5		

Table S3. Detailed analytical conditions of ICP-MS.

Parameter	Value
RF Power	1500 W
Argon gas pressure	600 kPa
Cell gas (Helium)	100 kPa
Peak pattern	1
Replicates	3
Sweeps/replicate	100
Stabilization time	30 s

Table S4. Detailed analytical conditions of LA-ICP-MS.

LA system (NWR213, ESI, Portland, OR, USA)	
Wavelength, nm	213
Pulse duration, ns	4
Fluence	2.7 J/cm ²
Repetition rate	10 Hz
Spot diameter	100 µm (zoomed version: 20 µm)
Scan speed	500 µm/ sec (zoomed version: 20 µm/sec)
Ablation mode	line scan
Carrier He gas flow rate	0.8 L/min
Make up Ar gas flow rate	0.8 L/min
ICP-QQQ-MS (8800 series, Agilent Technologies, Tokyo, Japan)	
RF power	1550 W
Plasma Ar gas flow rate	15 L/min
Auxiliary Ar gas	not used
Collision	not used
MS/MS	not used
Integration time	0.01 sec for ²⁰⁶ Pb, ²⁰⁷ Pb, ²⁰⁸ Pb, and 0.005 sec for other isotopes
Measured Isotopes	¹³ C, ²⁵ Mg, ³¹ P, ⁴³ Ca, ⁵⁵ Mn, ⁵⁷ Fe, ⁶⁵ Cu, ⁶⁶ Zn, ²⁰⁶ Pb, ²⁰⁷ Pb, ²⁰⁸ Pb