Electronic supplementary information

Rapid analysis of ^{90}Sr in cattle bone and tooth samples by inductively coupled plasma mass spectrometry
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Table S1. ICP-MS instrumental parameters and condition for elemental analysis

Parameter	Value
Nebulizer	MEINHARD glass nebulizer with standard baffled cyclonic spray chamber
RF power	1600 W
Plasma gas flow	18 L min^{-1}
Aux. gas flow	1.1 L min^{-1}
Nebulizer gas flow	0.95 L min^{-1}
Sample uptake rate	500 µL min^{-1}
Isotopes monitored	^{24}Mg, ^{88}Sr, ^{90}Zr, ^{115}In (no gas mode) ^{40}Ca, ^{56}Fe, ^{73}Ge, ^{60}Ni (Methane reaction mode)
Scan mode	Peak hopping
Dwell time	1.0 msec amu^{-1}
Cell gas	Methane
Cell gas flow	1.2 mL min^{-1}
DRC RPq	0.75
Detector mode	Dual mode (Plus + Analog)
Auto lens	ON

Table S2. ICP-MS instrumental parameters and condition for ^{90}Sr measurement

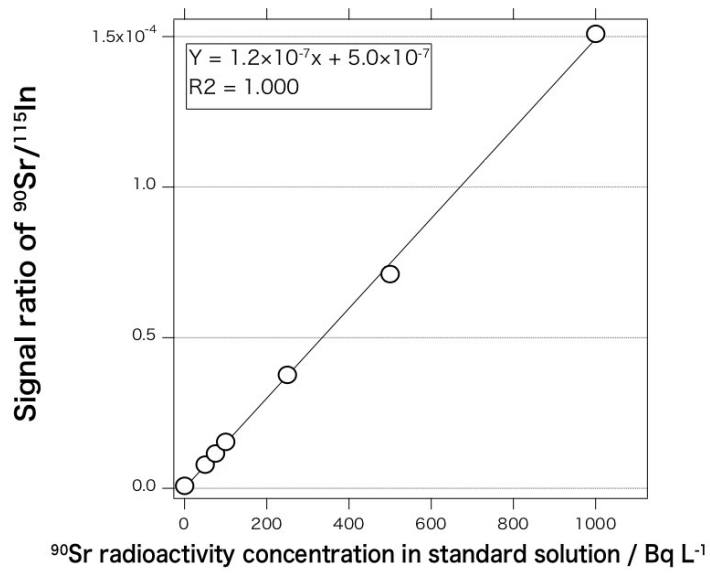| Parameter	Value
Nebulizer	Ultrasonic desolvating nebulizer
Nebulizer condition	120 ˚C for desolvation
	2 ˚C for condensation
RF power	1600 W
Plasma gas flow	18 L min^{-1}
Aux. gas flow	1.1 L min^{-1}
Nebulizer gas flow	1.01 L min^{-1}
Sample uptake rate	550 µL min^{-1}
Isotopes monitored	^{84}Sr, ^{86}Sr, ^{89}Y, ^{90}Sr, ^{115}In
Scan mode	Peak hopping
Dwell time	10 msec amu^{-1} (m/z = 89 and 90)
	1.0 msec min^{-1} (m/z = 115)
	0.10 msec min^{-1} (m/z = 84 and 86)
Cell gas	Oxygen
Cell gas flow	1.2 mL min^{-1}
DRC RPq	0.75
Detector mode	Dual mode (Plus + Analog)
Auto lens	ON

Fig. S1. Calibration curve of radioactive concentration of ^{90}Sr in the ICP-MS method. Where error bars are not visible, they are smaller than symbols.
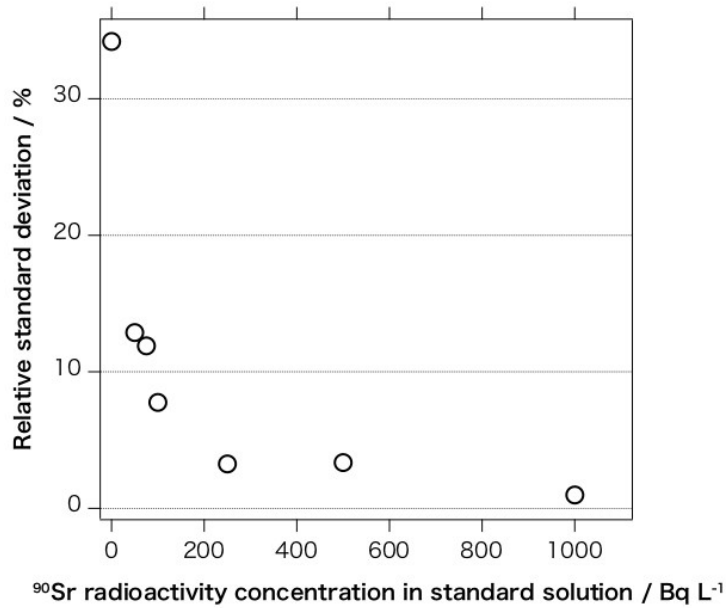

Fig. S2. Relationship between RSD and radioactive concentration of ^{90}Sr in the standard solution