

Table S1. Zn isotopic composition of the different mouse organs

Organ	Mouse number	Strain	Sex	Age (weeks)	$\delta^{66}\text{Zn}$	$\delta^{68}\text{Zn}$
<i>Dogfish Muscle DORM-1 bones</i>					-1.38	-2.59
	1	C57BL/6J	M	8	0.92	1.85
	2	C57BL/6J	M	6	0.64	1.25
	3	C57BL/6J	M	11	0.88	1.70
	4	C57BL/6J	M	14	0.80	1.59
	5	C57BL/6J	F	8	0.94	1.84
	6	C57BL/6J	F	6	0.60	1.16
	7	C57BL/6J	F	11	0.90	1.80
	11	B10Br	F	16	0.82	1.60
	12	B10Br	F	16	0.79	1.55
	13	B10Br	F	16	0.84	1.65
	14	B10Br	F	16	0.87	1.72
	15	B10Br	F	11	0.78	1.55
	16	129xSvJ	F	11	0.73	1.41
	17	129xSvJ	F	11	0.64	1.27
	18	129xSvJ	F	9	1.13	2.24
	19	129xSvJ	M	9	0.78	1.49
<i>brain</i>	1	C57BL/6J	M	8	-0.04	-0.01
	2	C57BL/6J	M	6	-0.08	-0.13
	3	C57BL/6J	M	11	-0.42	-0.78
	4	C57BL/6J	M	14	0.01	0.05
	5	C57BL/6J	F	8	-0.03	-0.06
	6	C57BL/6J	F	6	0.08	0.22
	7	C57BL/6J	F	11	0.11	0.22
	11	B10Br	F	16	0.06	0.16
	12	B10Br	F	16	0.11	0.21
	13	B10Br	F	16	0.11	0.23
	15	B10Br	F	11	-0.24	-0.28
	16	129xSvJ	F	11	-0.03	-0.10
	17	129xSvJ	F	11	-0.15	-0.28
	19	129xSvJ	M	9	0.03	0.11
<i>colon</i>	4	C57BL/6J	M	14	0.72	1.54
	5	C57BL/6J	F	8	-0.19	-0.27
	8	C57BL/6J	F	14	0.36	0.74
<i>fat</i>	1	C57BL/6J	M	8	0.41	0.91
	2	C57BL/6J	M	6	0.32	0.81

	3	C57BL/6J	M	11	0.23	0.59
	4	C57BL/6J	M	14	0.76	1.67
	6	C57BL/6J	F	6	0.17	0.42
	7	C57BL/6J	F	11	0.41	1.08
	8	C57BL/6J	F	14	0.59	1.25
<i>heart</i>	2	C57BL/6J	M	6	-0.09	-0.10
	4	C57BL/6J	M	14	0.18	0.39
	5	C57BL/6J	F	8	0.15	0.36
	8	C57BL/6J	F	14	-0.15	-0.27
<i>kidney</i>	2	C57BL/6J	M	6	0.20	0.45
	3	C57BL/6J	M	11	0.26	0.55
	4	C57BL/6J	M	14	0.54	1.19
	5	C57BL/6J	F	8	0.31	0.62
	6	C57BL/6J	F	6	0.15	0.39
	7	C57BL/6J	F	11	0.34	0.72
	8	C57BL/6J	F	14	0.42	0.94
<i>liver</i>	1	C57BL/6J	M	8	-0.08	-0.10
	2	C57BL/6J	M	6	-0.09	-0.12
	3	C57BL/6J	M	11	0.04	0.11
	4	C57BL/6J	M	14	0.00	0.06
	5	C57BL/6J	F	8	-0.30	-0.54
	6	C57BL/6J	F	6	-0.22	-0.35
	7	C57BL/6J	F	11	0.05	0.14
	8	C57BL/6J	F	14	-0.03	0.01
	11	B10Br	F	16	-0.07	-0.11
	12	B10Br	F	16	-0.05	-0.06
	13	B10Br	F	16	-0.02	-0.02
	14	B10Br	F	16	0.01	0.07
	15	B10Br	F	11	-0.10	-0.13
	16	129xSvJ	F	11	-0.01	0.08
	17	129xSvJ	F	11	0.12	0.26
	18	129xSvJ	F	9	-0.24	-0.45
	19	129xSvJ	M	9	-0.09	-0.16
<i>lung</i>	4	C57BL/6J	M	14	0.42	0.90
	5	C57BL/6J	F	8	0.45	0.91
	8	C57BL/6J	F	14	0.15	0.35
<i>MLN</i>	2	C57BL/6J	M	6	0.09	0.17
	3	C57BL/6J	M	11	0.34	0.70
<i>muscle</i>	2	C57BL/6J	M	6	-0.34	-0.67
	4	C57BL/6J	M	14	0.23	0.49

	5	C57BL/6J	F	8	0.14	0.37
	6	C57BL/6J	F	6	0.49	1.01
	8	C57BL/6J	F	14	0.26	0.58
<i>pancreas</i>	1	C57BL/6J	M	8	-0.08	-0.15
	2	C57BL/6J	M	6	0.00	0.04
	4	C57BL/6J	M	14	0.49	1.01
	5	C57BL/6J	F	8	0.32	0.67
	7	C57BL/6J	F	11	0.27	0.55
	8	C57BL/6J	F	14	0.35	0.70
<i>PLN</i>	3	C57BL/6J	M	11	0.29	0.69
	4	C57BL/6J	M	14	0.33	0.73
	5	C57BL/6J	F	8	0.13	0.32
	6	C57BL/6J	F	6	-0.13	-0.02
	7	C57BL/6J	F	11	-0.10	-0.06
	8	C57BL/6J	F	14	0.34	0.76
<i>RBCs</i>	1	C57BL/6J	M	8	0.98	2.00
	2	C57BL/6J	M	6	0.67	1.38
	3	C57BL/6J	M	11	0.96	1.90
	4	C57BL/6J	M	14	0.98	2.00
	5	C57BL/6J	F	8	0.76	1.58
	6	C57BL/6J	F	6	0.42	0.97
	8	C57BL/6J	F	14	1.26	2.53
	11	B10Br	F	16	0.97	1.95
	12	B10Br	F	16	0.81	1.69
	13	B10Br	F	16	0.89	1.82
	14	B10Br	F	16	0.90	1.77
	15	B10Br	F	11	0.89	1.80
	16	129xSvJ	F	11	0.81	1.67
	18	129xSvJ	F	9	1.09	2.08
	19	129xSvJ	M	9	1.09	2.17
<i>serum</i>	3	C57BL/6J	M	11	0.13	0.47
	4	C57BL/6J	M	14	0.06	0.11
	5	C57BL/6J	F	8	0.01	0.08
	11	B10Br	F	16	0.07	0.50
	12	B10Br	F	16	0.47	1.11
	13	B10Br	F	16	0.59	1.28
	14	B10Br	F	16	0.28	0.78
	15	B10Br	F	11	0.48	0.97
	16	129xSvJ	F	11	0.17	0.61
	17	129xSvJ	F	11	0.41	0.93
	19	129xSvJ	M	9	0.50	1.03

<i>skin</i>	5	C57BL/6J	F	8	0.56	1.18
<i>small intestine</i>	4	C57BL/6J	M	14	0.24	0.47
	5	C57BL/6J	F	8	0.06	0.13
	8	C57BL/6J	F	14	0.21	0.44
<i>spleen</i>	2	C57BL/6J	M	6	-0.35	-0.58
	4	C57BL/6J	M	14	0.38	0.73
	6	C57BL/6J	F	6	-0.24	-0.43
	8	C57BL/6J	F	14	0.32	0.67
<i>stomach</i>	4	C57BL/6J	M	14	0.39	0.77
	5	C57BL/6J	F	8	0.04	0.14
<i>thymus</i>	2	C57BL/6J	M	6	-0.03	0.20
	3	C57BL/6J	M	11	0.19	0.41
	4	C57BL/6J	M	14	0.41	0.91
	5	C57BL/6J	F	8	0.09	0.21
	6	C57BL/6J	F	6	0.06	0.37
	7	C57BL/6J	F	11	0.33	0.65
	8	C57BL/6J	F	14	-0.18	-0.31
<i>urine</i>	3	C57BL/6J	M	11	0.46	1.14
	4	C57BL/6J	M	14	0.58	1.25
	11	B10Br	F		-0.01	0.02
<i>feces</i>	2	C57BL/6J	M	6	0.32	0.72
	3	C57BL/6J	M	11	0.50	0.98
	4	C57BL/6J	M	14	0.50	1.00
	7	C57BL/6J	F	11	0.59	1.14
	8	C57BL/6J	F	14	0.56	1.19
	11	B10Br	F	16	0.49	0.95
	12	B10Br	F	16	0.54	1.11
	13	B10Br	F	16	0.62	1.23
	14	B10Br	F	16	0.26	0.77
	15	B10Br	F	11	0.54	1.10
	16	129xSvJ	F	11	0.39	0.81
	17	129xSvJ	F	11	0.46	0.90
	19	129xSvJ	M	9	0.39	0.77
<i>food</i>					0.32	0.66
					0.37	0.76
<i>water</i>					0.35	0.69