

Supplementary Table S1. plasma minerals, oxidative stress markers, and hormonal profile during the first-five months of life in male Shiba goats

Variables	Age (month)					P value
	M1	M2	M3	M4	M5	
Plasma elements						
Cu (mg/L)	0.890 (0.51–1.365) ^a	0.854 (0.741–1.357) ^a	0.9525 (0.757–1.125) ^a	0.707 (0.002–0.991) ^b	0.701 (0.461–0.969) ^b	0.0001***
Zn (mg/L)	0.645 (0.367–1.2) ^a	0.607 (0.301–1.643) ^a	0.569 (0.206–0.902) ^a	0.569 (0.172–1.018) ^a	0.474 (0.169–0.755) ^a	0.185
Se (mg/L)	0.062 (0.029–0.097) ^a	0.0645 (0.043–0.127) ^a	0.0605 (0.031–0.179) ^a	0.054 (0.027–0.325) ^a	0.044 (0.023–0.154) ^a	0.292
Fe (mg/L)	2.986 (1.75–5.83) ^a	2.638 (2.103–4.492) ^{ab}	2.18 (1.646–4.078) ^{bc}	2.236 (1.305–3.648) ^c	1.969 (1.215–3.139) ^c	0.0001***
Cr (mg/L)	0.042 (0.013–0.059) ^b	0.048 (0.027–0.111) ^{ab}	0.0585 (0.039–0.107) ^a	0.06 (0.015–0.127) ^a	0.045 (0.029–0.147) ^a	0.045*
Ca (mg/L)	44.65 (29.12–68.31) ^a	43.52 (36.03–57.04) ^a	42.33 (32.24–56.52) ^{ab}	43.57 (22.66–50.3) ^{ab}	33.61 (22.22–52.58) ^b	0.006**
Mg (mg/L)	23.3 (14.05–34.61) ^a	23.28 (17.71–33.7) ^a	25.3 (17.42–28.49) ^a	23.51 (12.36–30.81) ^a	15.59 (11.45–20.01) ^b	0.0001***
Oxidative stress markers						
MAD (nmol/mL)	17.35 (15.4–23.6) ^a	15.6 (13.1–19.4) ^a	17.5 (13.3–24) ^a	17.35 (13.3–23.1) ^a	16.1 (13.8–21.6) ^a	0.368
CAT (u/L)	278 (222–359) ^b	351 (233–417) ^a	339 (270–452) ^a	304 (245–480) ^{ab}	281 (252–355) ^{ab}	0.043*
SOD (u/ml)	3.84 (3.13–4.11) ^b	4.02 (3.2–5.27) ^{ab}	4.28 (3.1–6.16) ^a	4.13 (3.59–6.36) ^a	3.75 (3.52–4.48) ^{ab}	0.140
GPX (u/mL)	131.5 (116–147) ^c	141.5 (121–164) ^{bc}	142 (127–180) ^{ab}	151.5 (138–189) ^a	154 (133–179) ^a	0.001**
Plasma hormones						
Cortisol (ng/mL)	23.34 (9.95–31.02) ^{ab}	15.84 (7.514–42.24) ^b	21.73 (6.361–55.37) ^{ab}	21.44 (12.03–38.87) ^{ab}	24.56 (10.98–49.23) ^a	0.124
FSH (ng/mL)	0.874 (0.421–1.53) ^a	0.442 (0.267–3.049) ^a	0.993 (0.2401–3.014) ^a	0.673 (0.1257–2.73) ^a	0.439 (0.054–2.342) ^a	0.489
LH (ng/mL)	0.548 (0.0357–1.862) ^a	0.359 (0.1–1.292) ^{ab}	0.259 (0.0778–1.973) ^{ab}	0.169 (0.1–0.735) ^b	0.198 (0.083–1.034) ^b	0.039*
IGF1 (ng/mL)	141.9 (80–251.2) ^c	132 (78–361.9) ^{bc}	212.2 (130.9–321.2) ^a	203.5 (72.67–311) ^{ab}	140 (91.39–223.9) ^c	0.007**
Inhibin (ng/mL)	10.61 (2.215–18.55) ^{ab}	10.67 (2.629–20.95) ^a	12.99 (7.288–19.95) ^a	8.966 (2.876–17.52) ^a	8.129 (6.286–13.73) ^b	0.011*
Testosterone (ng/mL)	159 (20.5–639.2) ^b	426 (80.66–995.2) ^a	280.1 (38.33–816) ^{ab}	398.7 (94.98–900) ^{ab}	431.5 (144.4–700) ^a	0.046*
T3 (nmol/L)	17.68 (8.52–23.55) ^a	12.57 (11.45–14.8) ^{bc}	15.64 (7.83–18.9) ^{ab}	10.02 (5.37–17.68) ^{cd}	9.72 (5.18–14) ^d	0.0001***
T4 (nmol/L)	11.3 (6.1–18.7) ^a	9.15 (8–11.5) ^{bc}	10.95 (5.6–12.9) ^{ab}	7.05 (3.9–12.7) ^{cd}	7 (3.7–9.8) ^d	0.0001***

Values are expressed as median and range (n = 16). * P < 0.05, ** P < 0.01, ***P < 0.001. Abbreviations: Cu, copper; Zn, zinc; Fe, iron; Se, selenium; Cr, chromium; Ca, calcium; Mg, magnesium; MDA, malondialdehyde; CAT, catalase; SOD, superoxide dismutase; GPX, glutathione peroxidase; IGF1, insulin-like growth factor 1; T3, triiodothyronine; T4, tetraiodothyronine; FSH, follicular stimulating hormones; LH, leutinizing hormone.