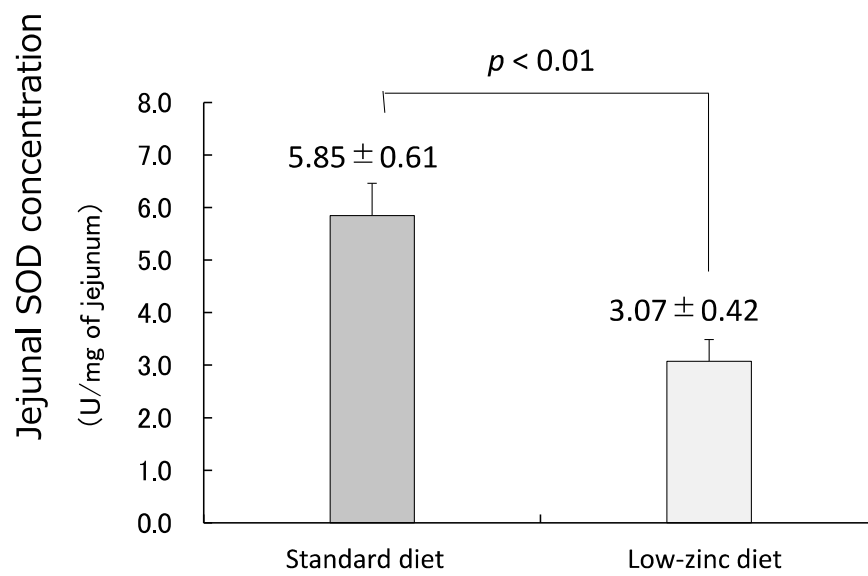


Fig. 1



A numerical value indicates the mean value $\pm$ standard error (n = 6).
Student's *t*-test

FIG. 1 Jejunal SOD concentration under standard diet and low-zinc diet

Fig. 2

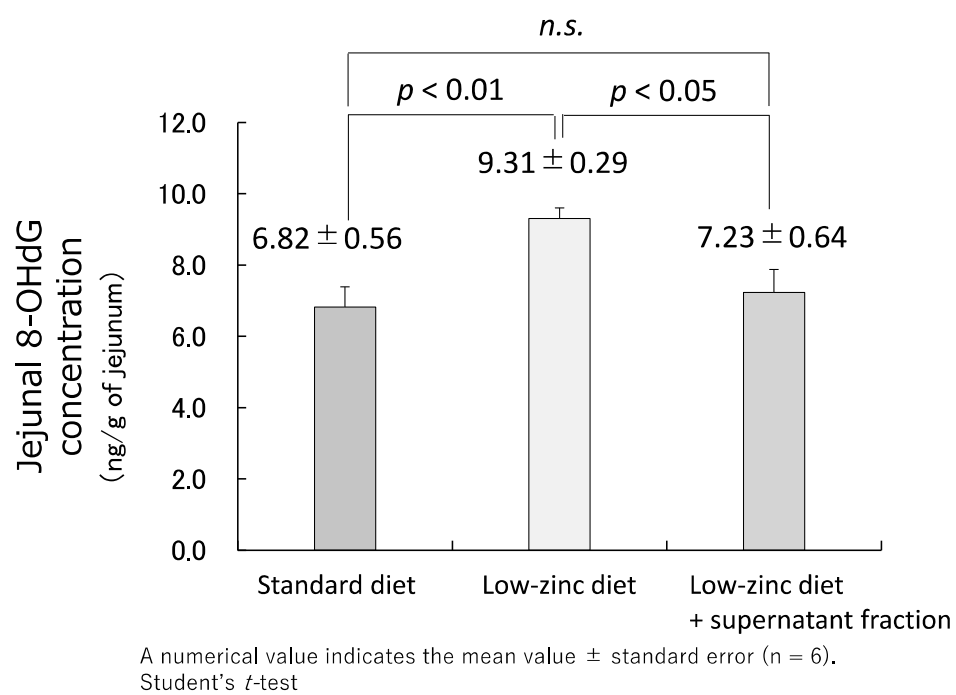


FIG. 2 Jejunal 8-OHdG concentration under standard diet, low-zinc diet, and low-zinc diet + supernatant fraction

Fig. 3

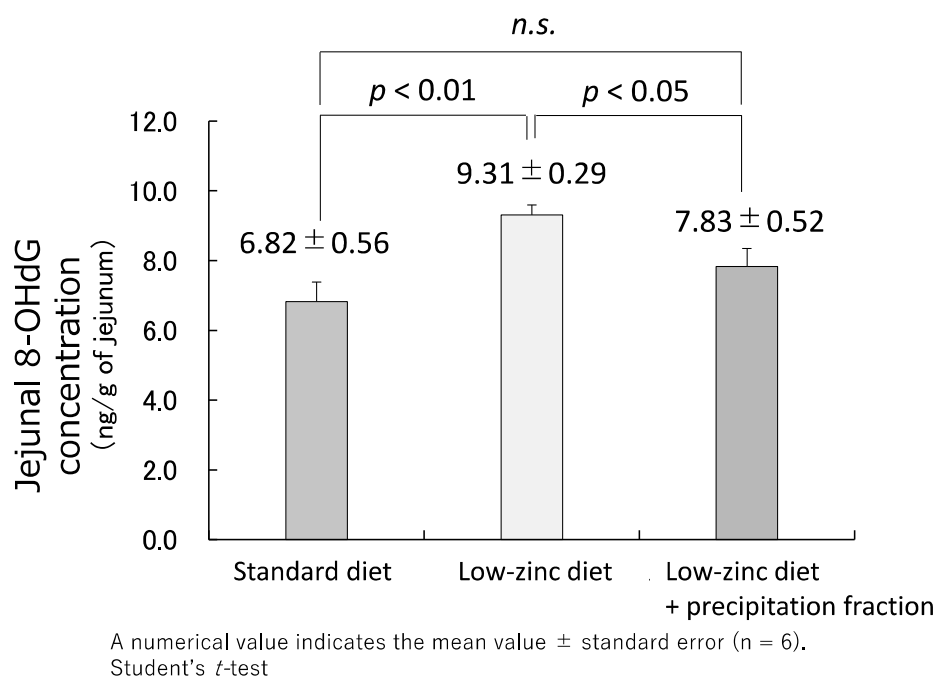
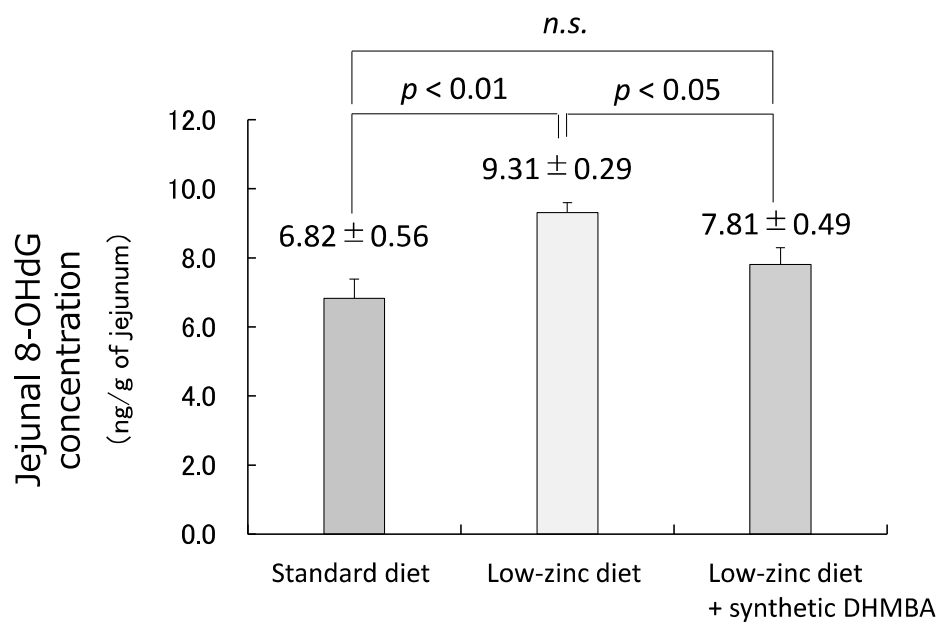


FIG. 3 Jejunal 8-OHdG concentration under standard diet, low-zinc diet, and low-zinc diet + precipitation fraction

Fig. 4



A numerical value indicates the mean value $\pm$ standard error ($n = 6$).
Student's t -test

FIG. 4 Jejunal 8-OHdG concentration under standard diet, low-zinc diet, and low-zinc diet + synthetic DHMBA

Fig. 5

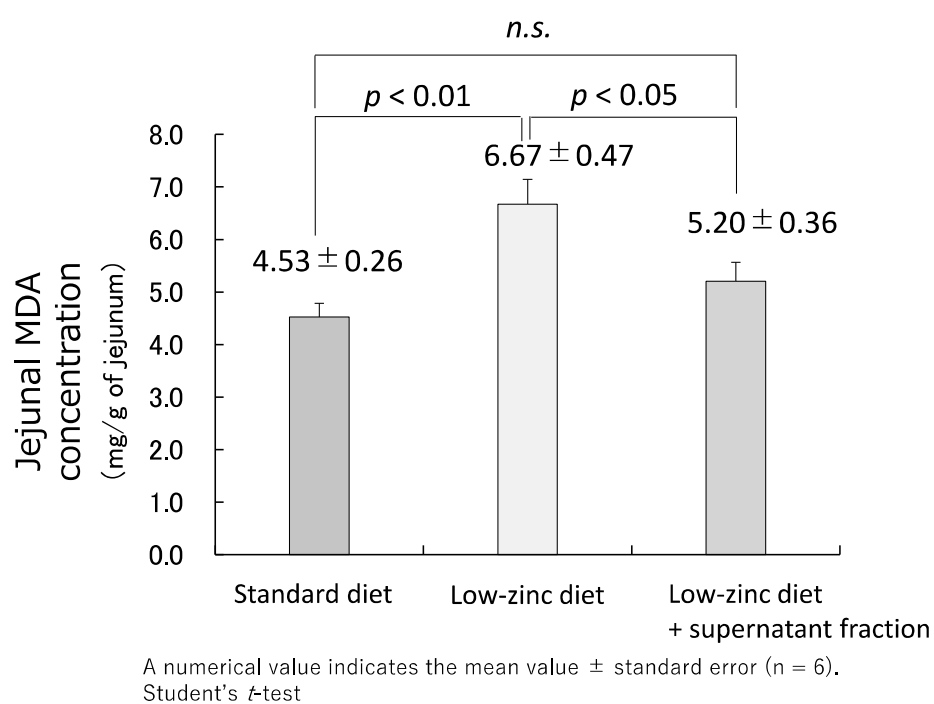


FIG. 5 Jejunal MDA concentration under standard diet, low-zinc diet, and low-zinc diet + supernatant fraction

Fig. 6

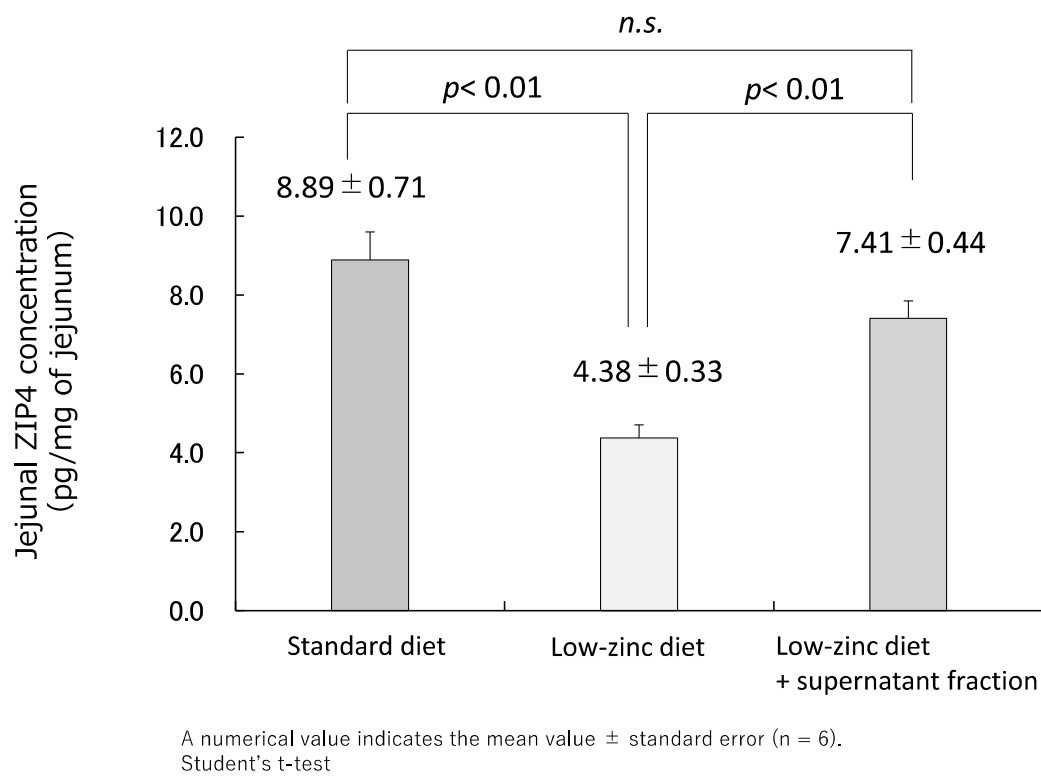


FIG. 6 Jejunal ZIP4 concentration under standard diet, low-zinc diet, and low-zinc diet + supernatant fraction

Fig. 7

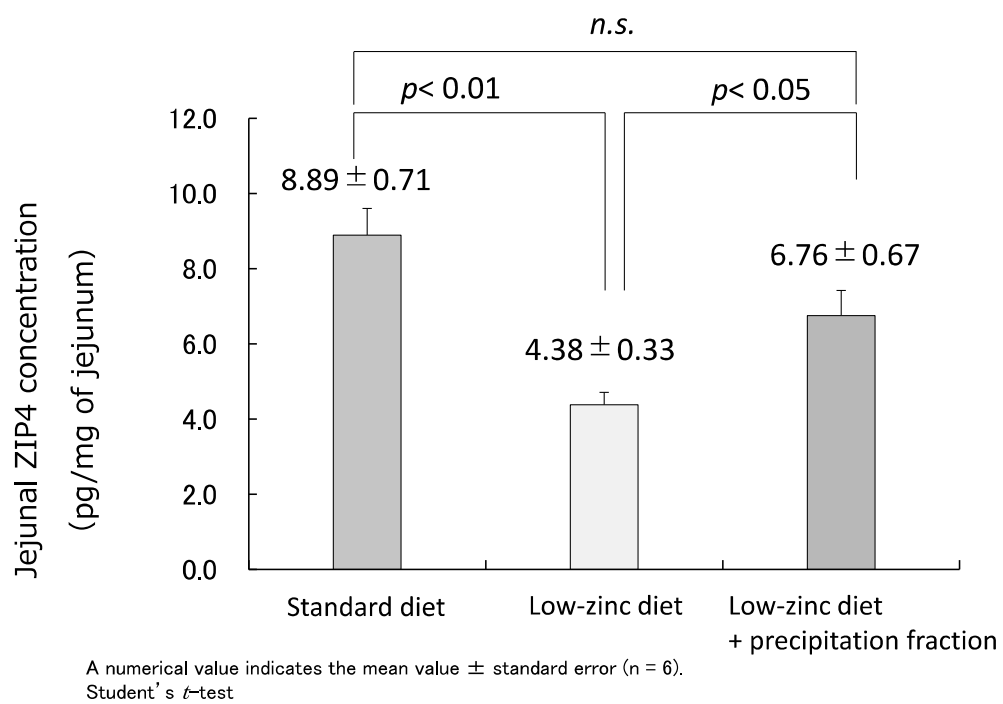
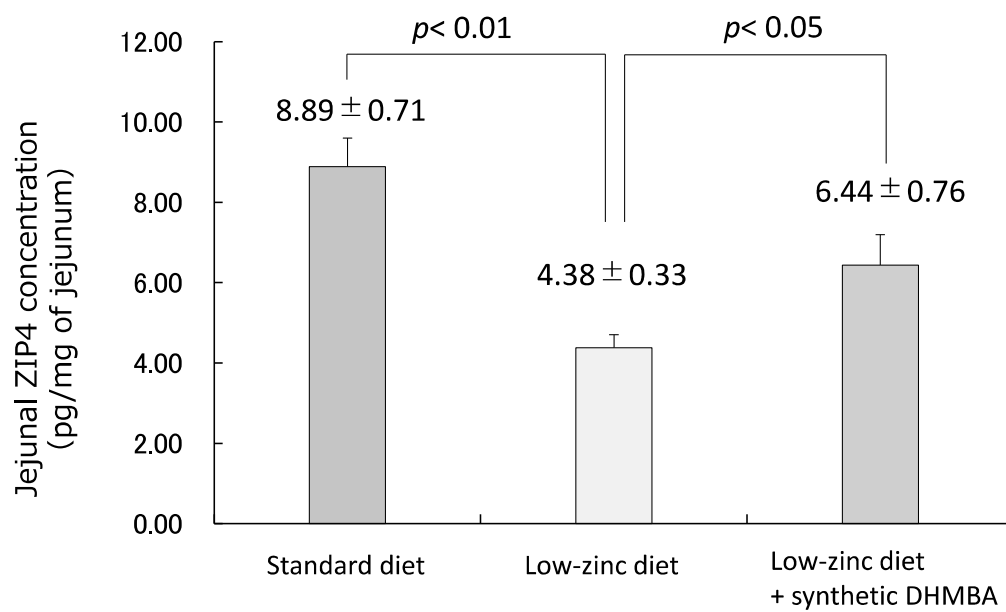


FIG. 7 Jejunal ZIP4 concentration under standard diet, low-zinc diet, and low-zinc diet + precipitation fraction

Fig. 8



A numerical value indicates the mean value $\pm$ standard error ($n = 6$).
Student's t -test

FIG. 8 Jejunal ZIP4 concentration under standard diet, low-zinc diet, and low-zinc diet + synthetic DHMBA

Fig. 9

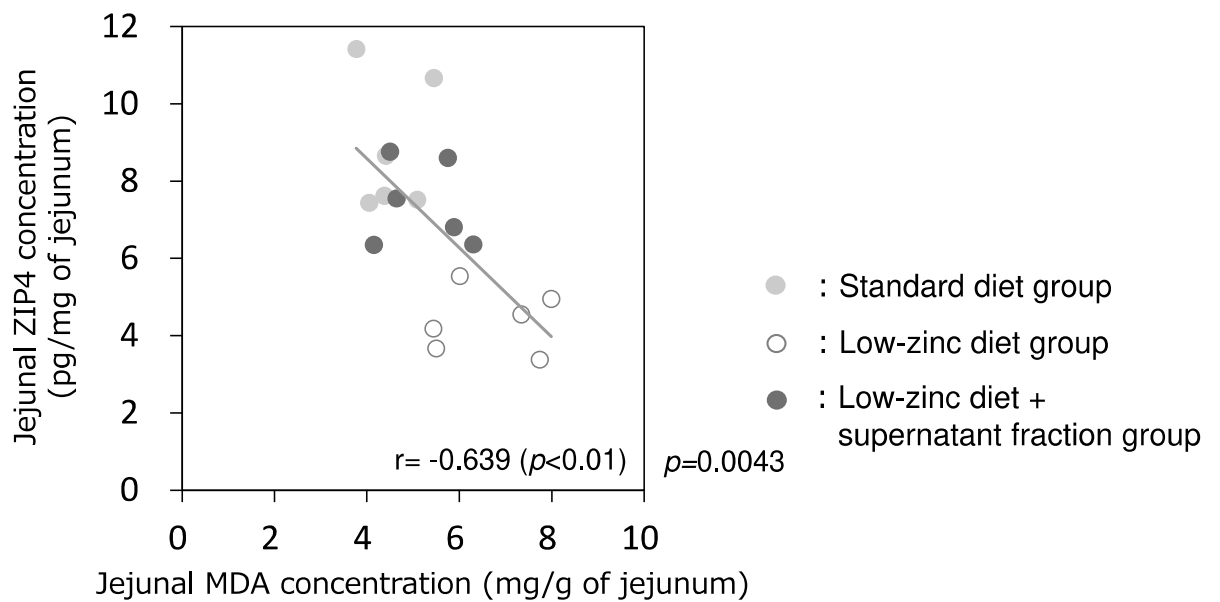


FIG. 9 Correlation between jejunal MDA concentration and jejunal ZIP4 concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + supernatant fraction group

Fig. 10

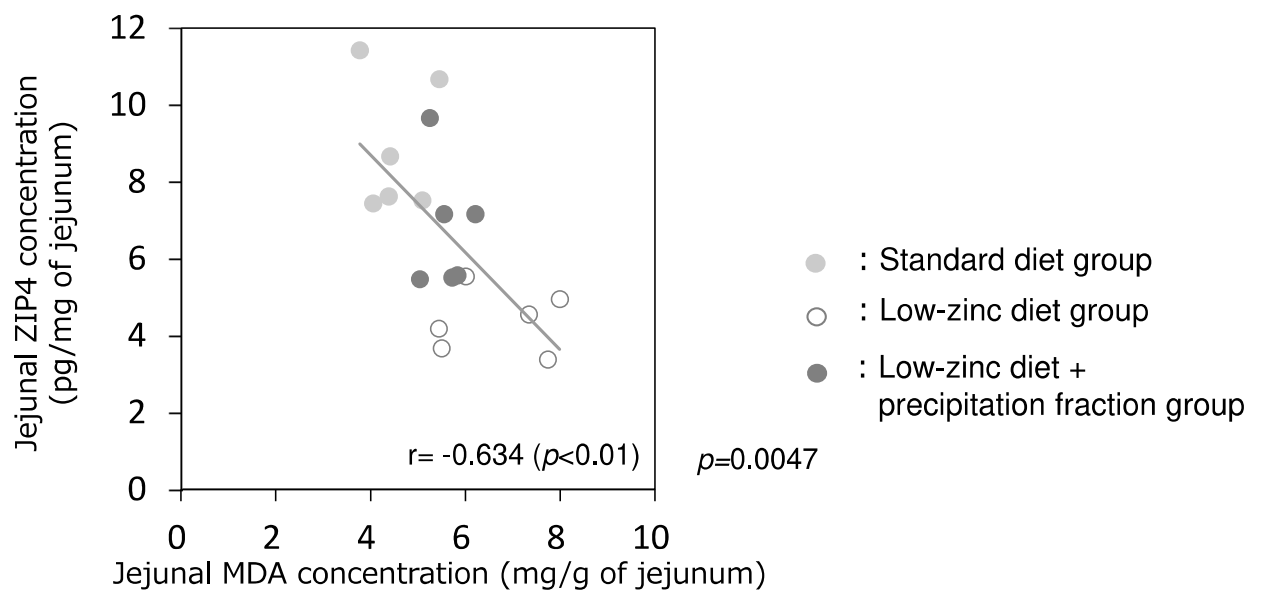


FIG. 10 Correlation between jejunal MDA concentration and jejunal ZIP4 concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + precipitation fraction group

Fig. 11

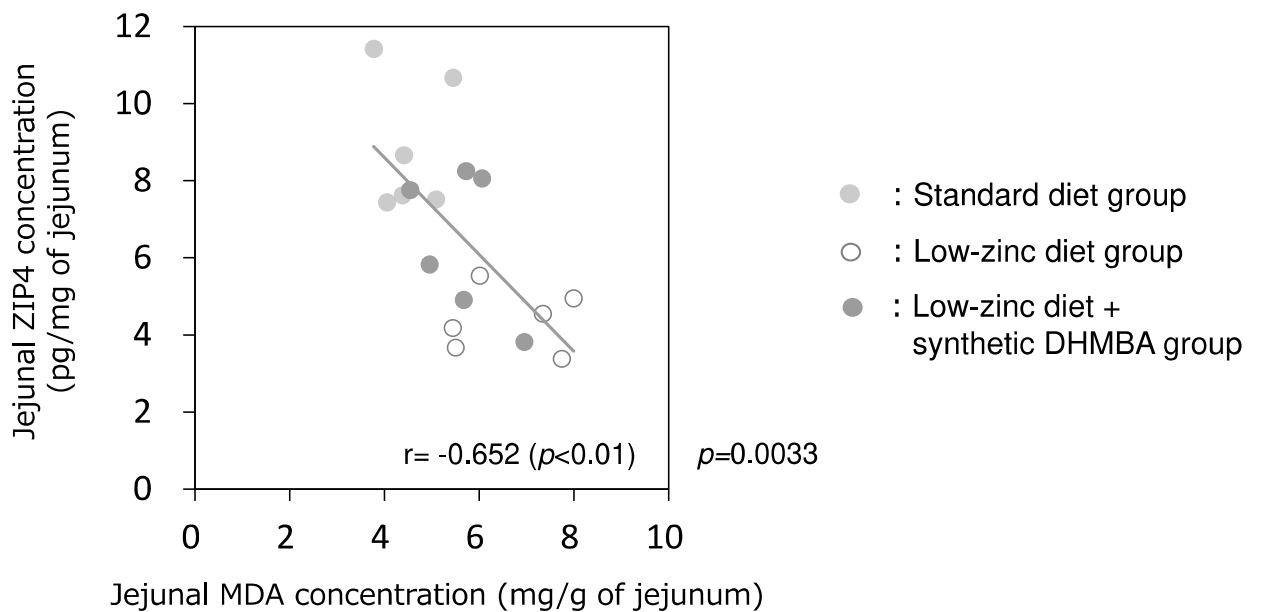
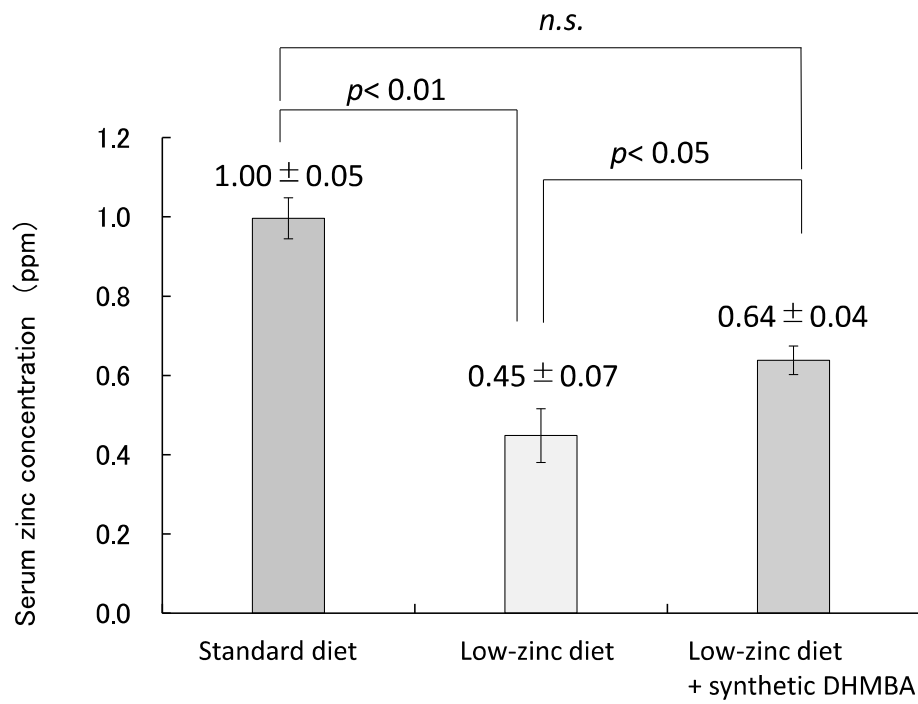


FIG. 11 Correlation between jejunal MDA concentration and jejunal ZIP4 concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + synthetic DHMBA group

Fig. 12



A numerical value indicates the mean value $\pm$ standard error ($n = 6$).
Student's *t*-test

FIG. 12 Serum zinc concentration under standard diet, low-zinc diet, and low-zinc diet + synthetic DHMBA

Fig. 13

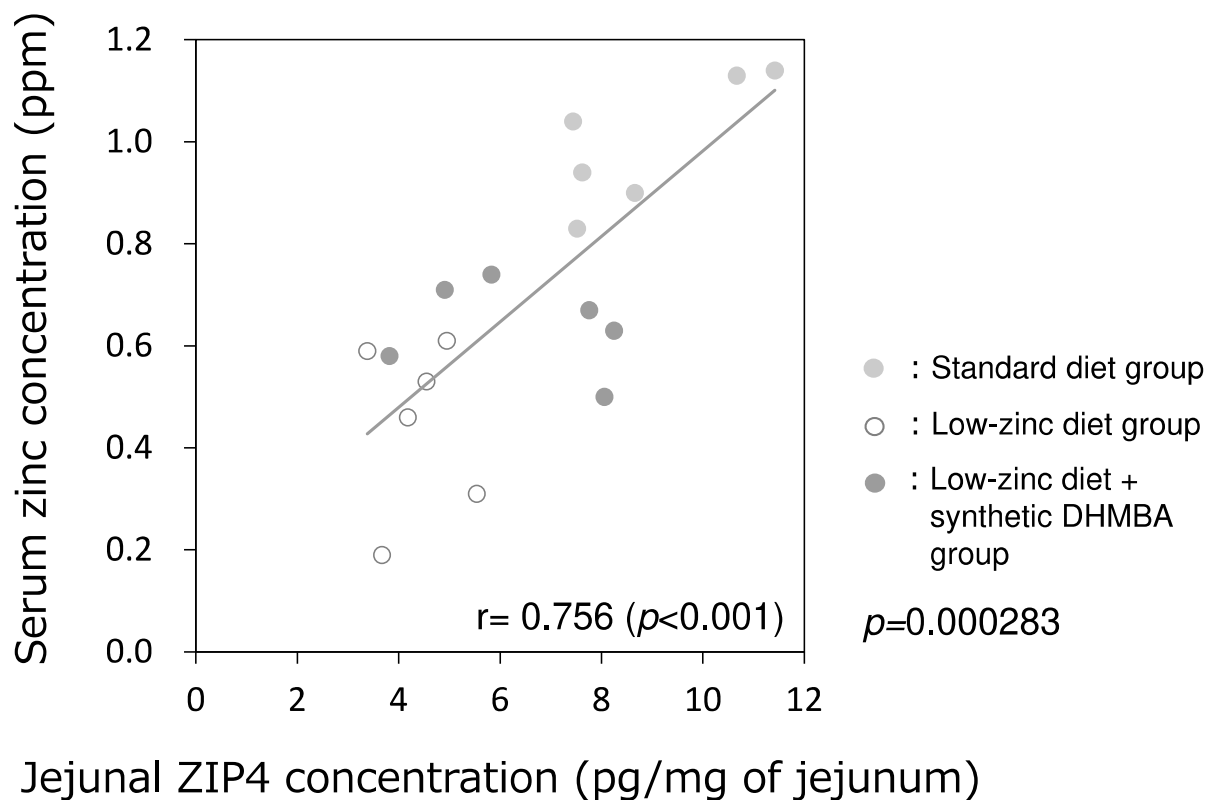


FIG. 13 Correlation between jejunal ZIP4 concentration and serum zinc concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + synthetic DHMBA group

Fig. 14

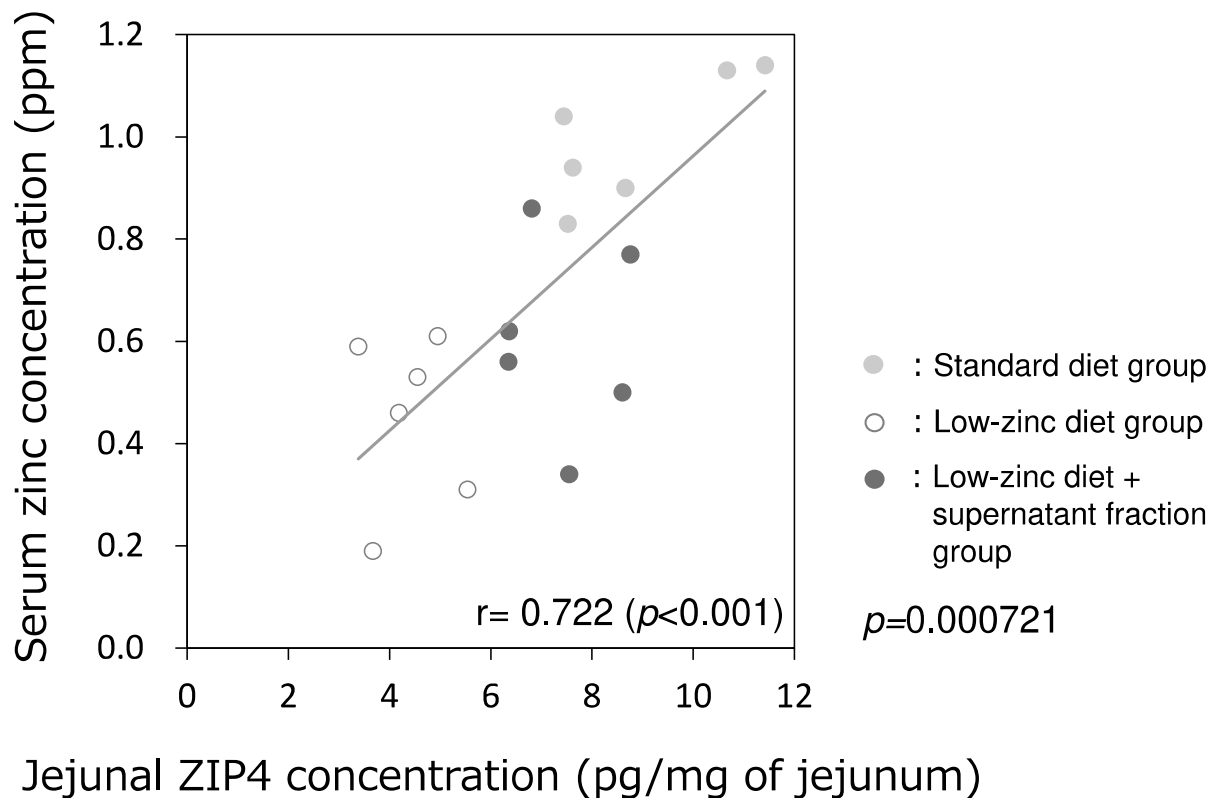


FIG. 14 Correlation between jejunal ZIP4 concentration and serum zinc concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + supernatant fraction group

Fig. 15

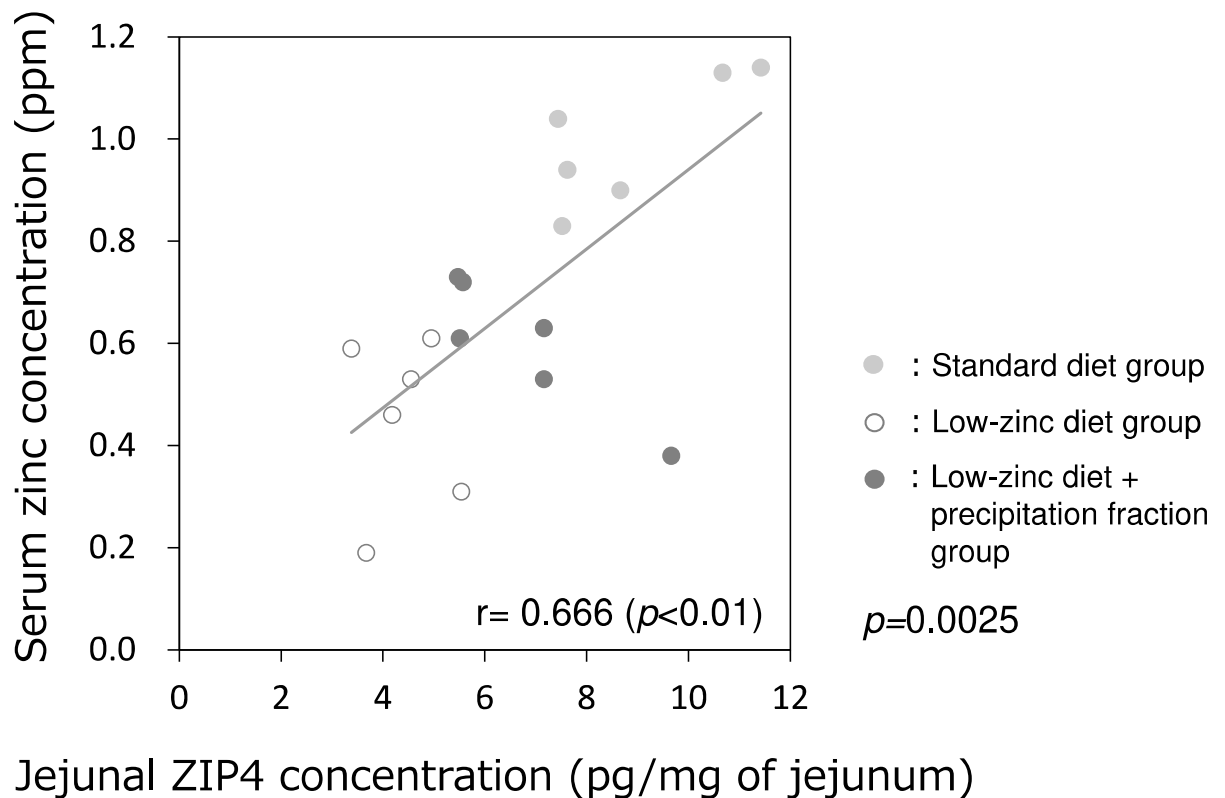


FIG. 15 Correlation between jejunal ZIP4 concentration and serum zinc concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + precipitation fraction group

Fig. 16

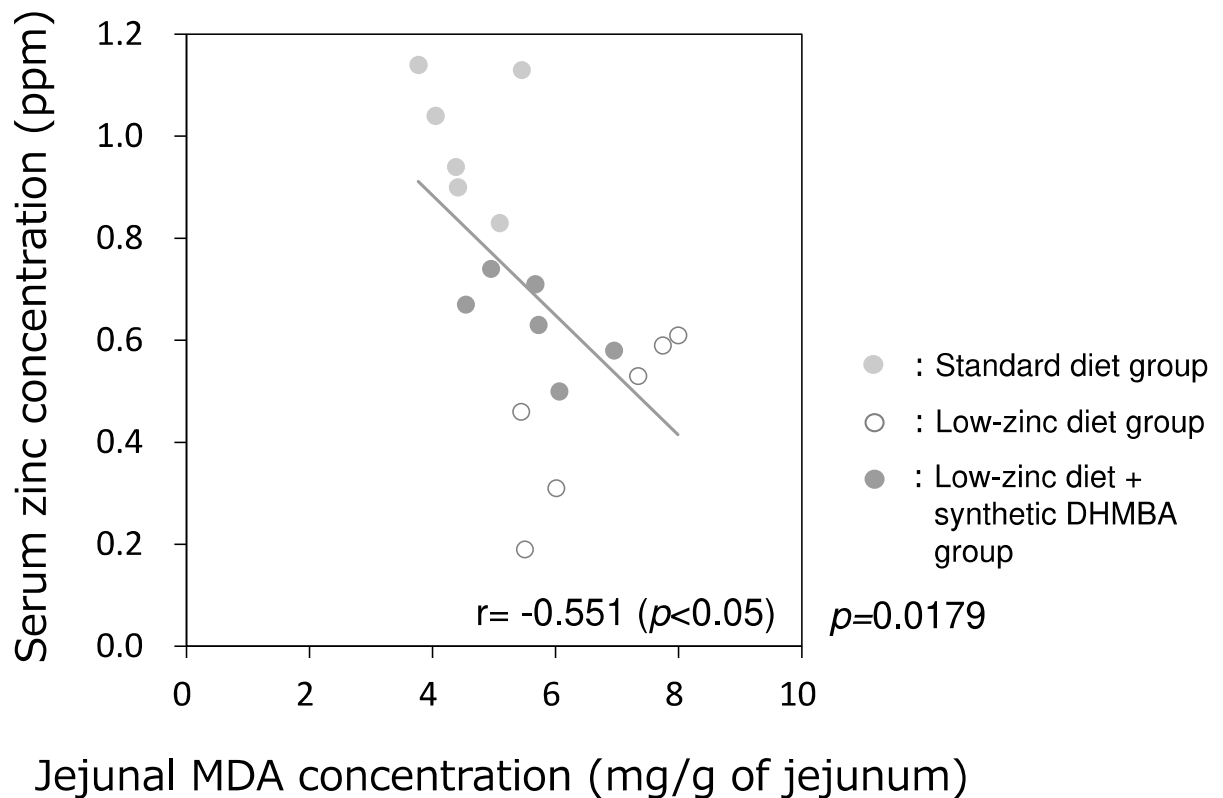


FIG. 16 Correlation between jejunal MDA concentration and serum zinc concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + synthetic DHMBA group

Fig. 17

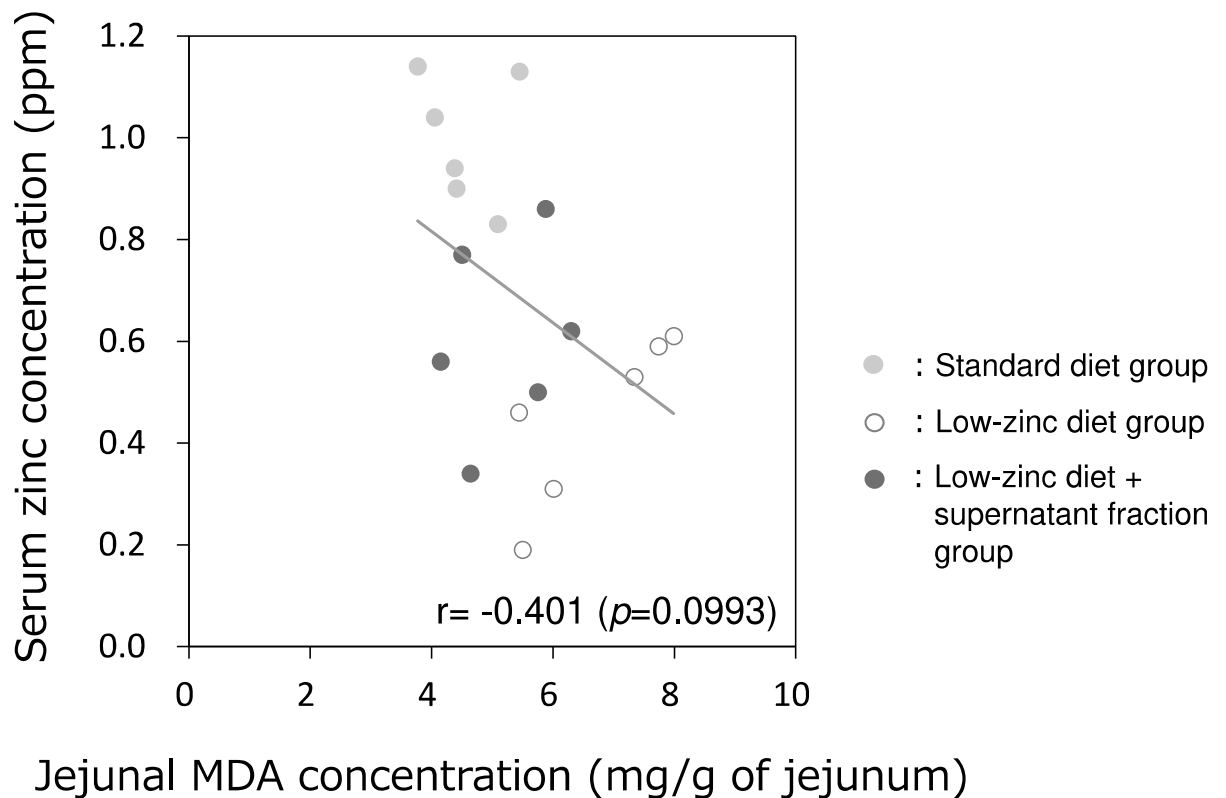


FIG. 17 Correlation between jejunal MDA concentration and serum zinc concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + supernatant fraction group

Fig. 18

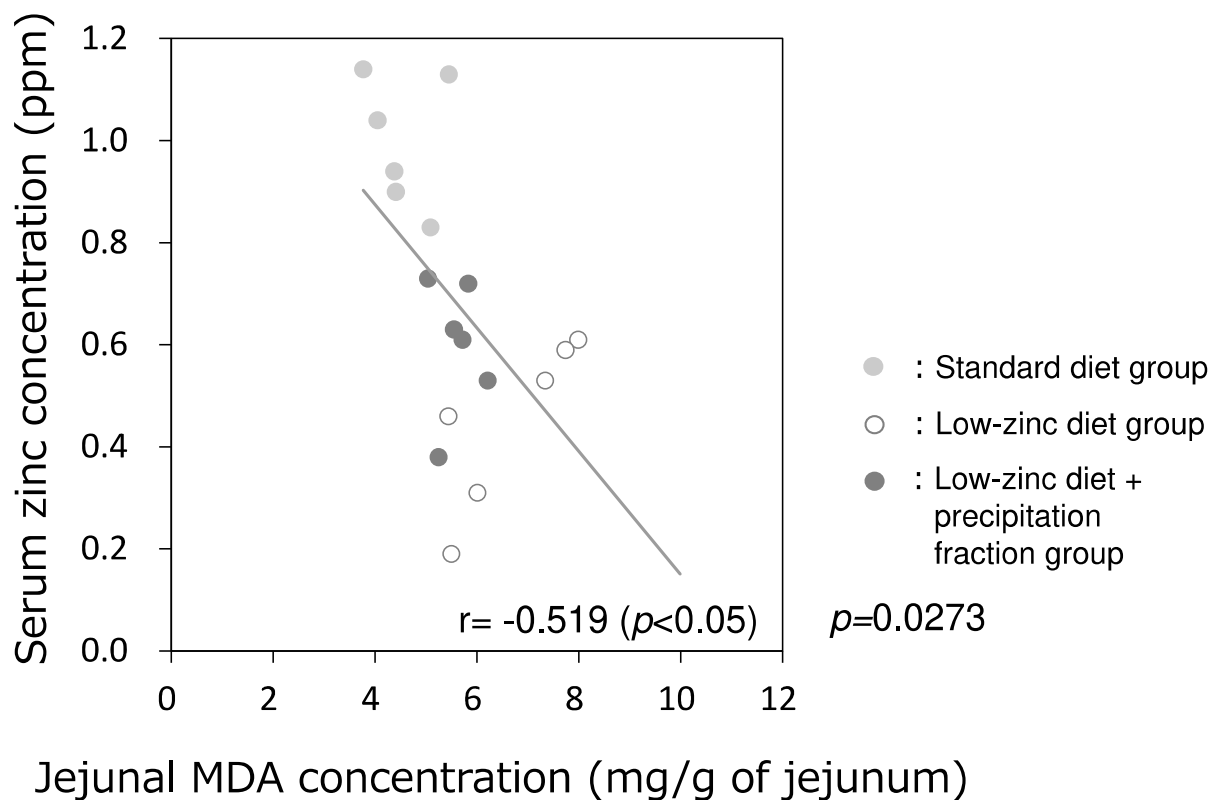


FIG. 18 Correlation between jejunal MDA concentration and serum zinc concentration (n = 18)

Three groups including standard diet group, low-zinc diet group, and low-zinc diet + precipitation fraction group