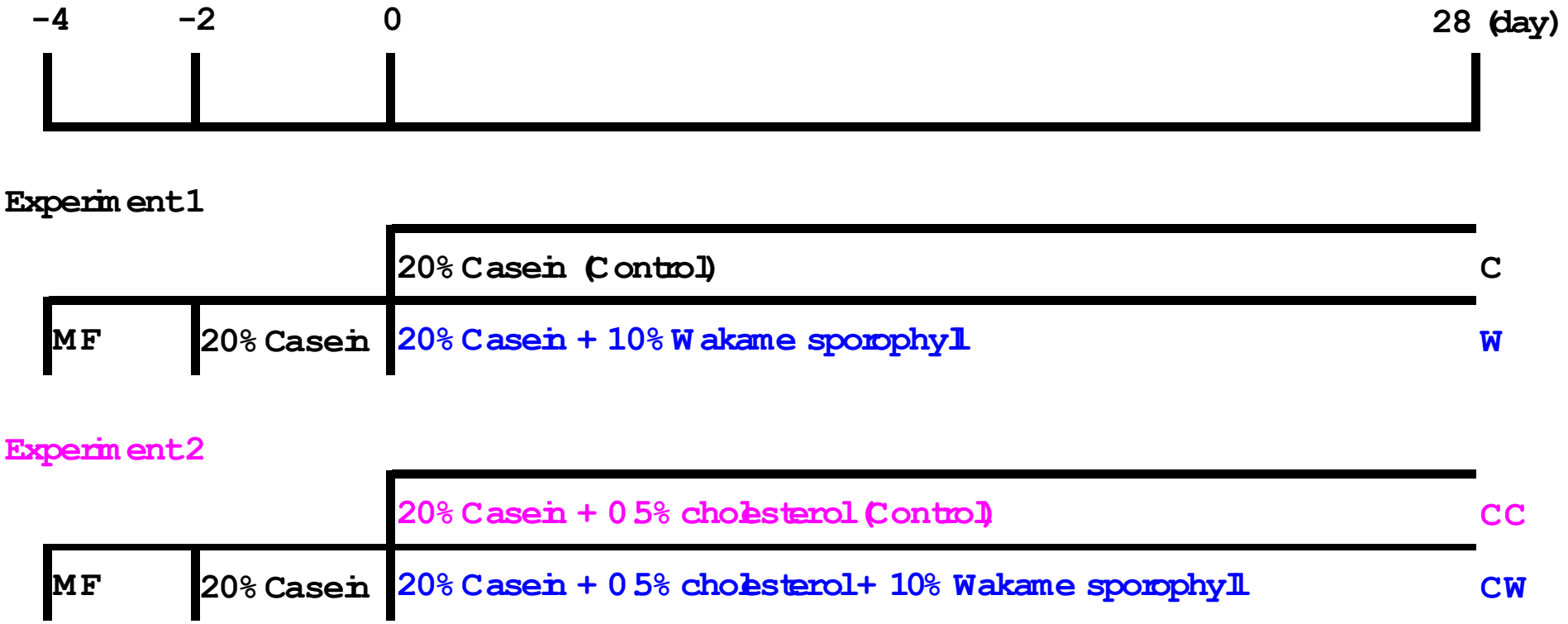
EFFECTS OF DIETARY WAKAME (*UNDARIA PINNATIFIDA*) SPOROPHYLL ON PLASMA AND LIVER LIPID LEVELS IN RATS

Masashi Kawasaki[1], Tomoka Kikuchi[1], Ryoko Kikuchi[1], Hiromi Takahashi[1], and Risa Tanaka[1]

[1] ***Iwate Prefectural University, Morika Junior College, Iwate, Japan***

Iwate Prefectural University

Experimental schedule



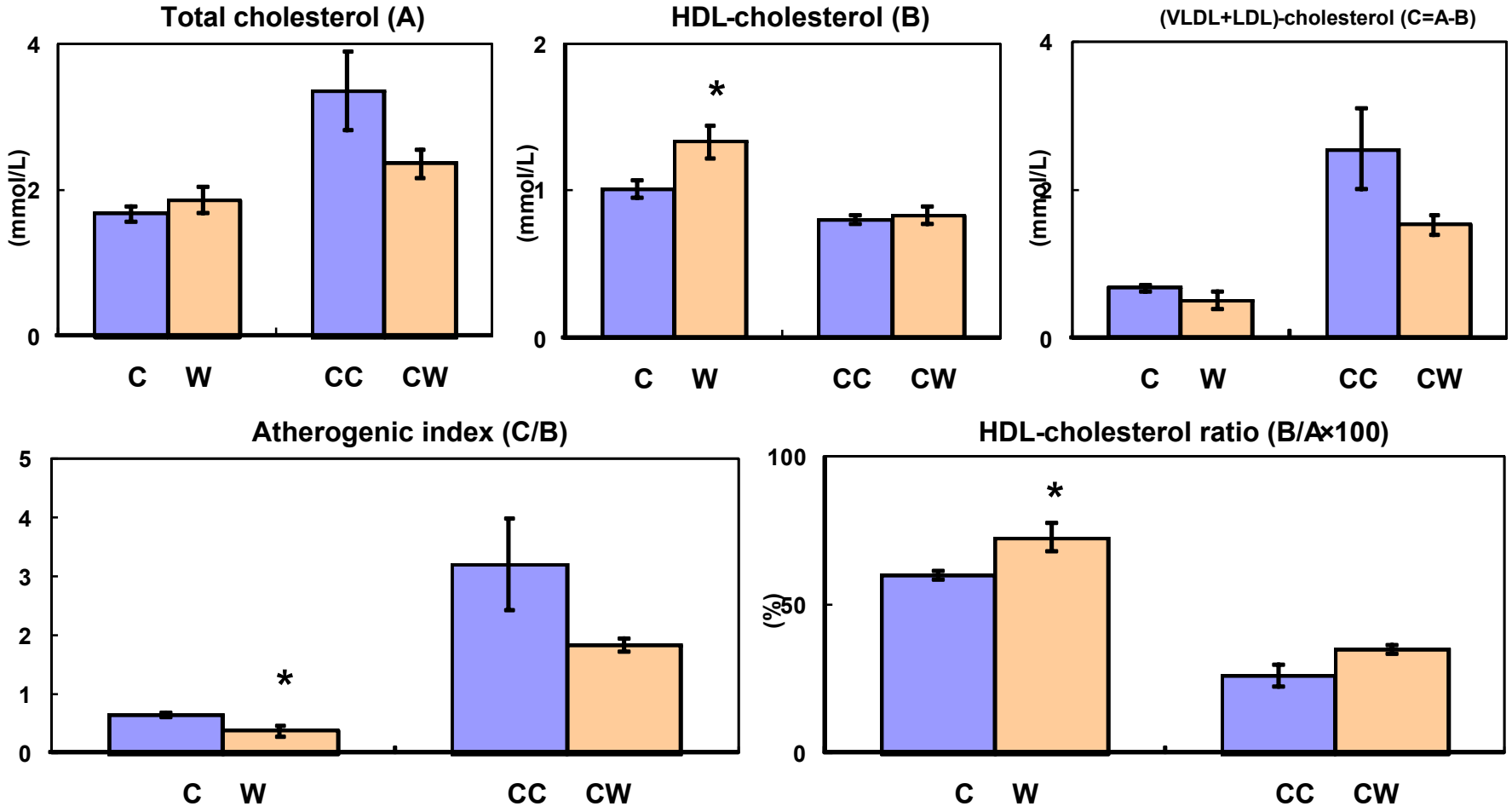
Composition of experimental diets (g/100g)

Ingredient	Experiment 1		Experiment 2	
	C	W	CC	CW
Casein	20	20	20	20
α-Corn starch	13.2	13.2	13.2	13.2
Corn starch	39.75	29.75	39.125	29.125
Sucrose	10	10	10	10
Cellulose powder	5	5	5	5
Soybean oil	7	7	7	7
Mineral mixture (AIN93G)	3.5	3.5	3.5	3.5
Vitamin mixture (AIN93)	1	1	1	1
L-Cystine	0.3	0.3	0.3	0.3
Choline bitartrate	0.25	0.25	0.25	0.25
Wakame sporophyll dry powder	-	10	-	10
Cholesterol	-	-	0.5	0.5
Sodium cholate	-	-	0.125	0.125

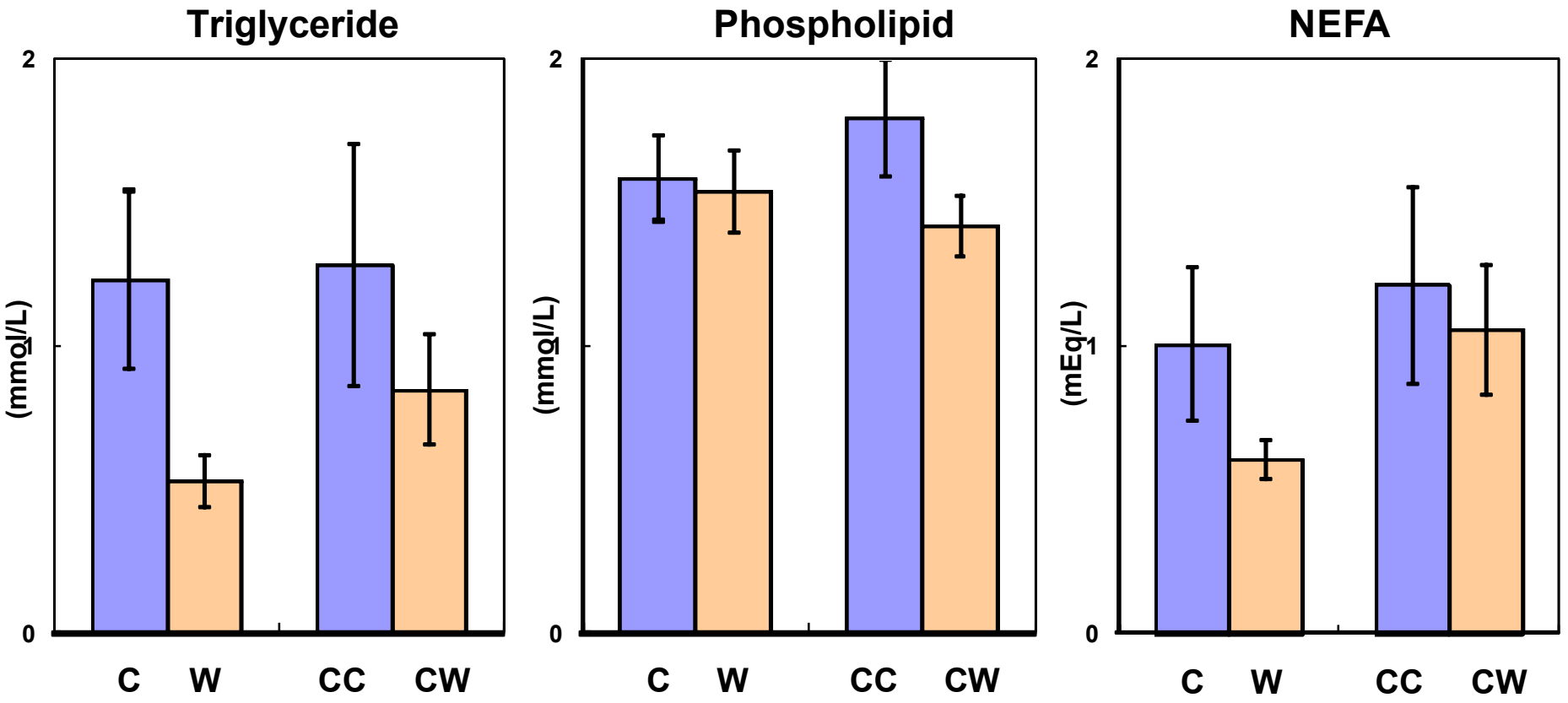
Effects of dietary wakame sporophyll on food intake, body weight gain, and liver weight in rats

Measurement	Experiment 1		Experiment 2	
	C	W	CC	CW
Initial body weight (g)	73.3 ± 0.9	73.3 ± 3.2	73.3 ± 3.4	73.3 ± 1.6
Food intake (g/28 d)	486.3 ± 26.1	497.1 ± 5.0	504.3 ± 6.1	497.4 ± 15.6
Body weight gain (g/28 d)	219.7 ± 3.7	211.2 ± 2.6	224.5 ± 3.6	209.0 ± 9.0
Liver weight (g/100 g body wt)	4.21 ± 0.22	3.94 ± 0.10	6.01 ± 0.12	5.07 ± 0.14*

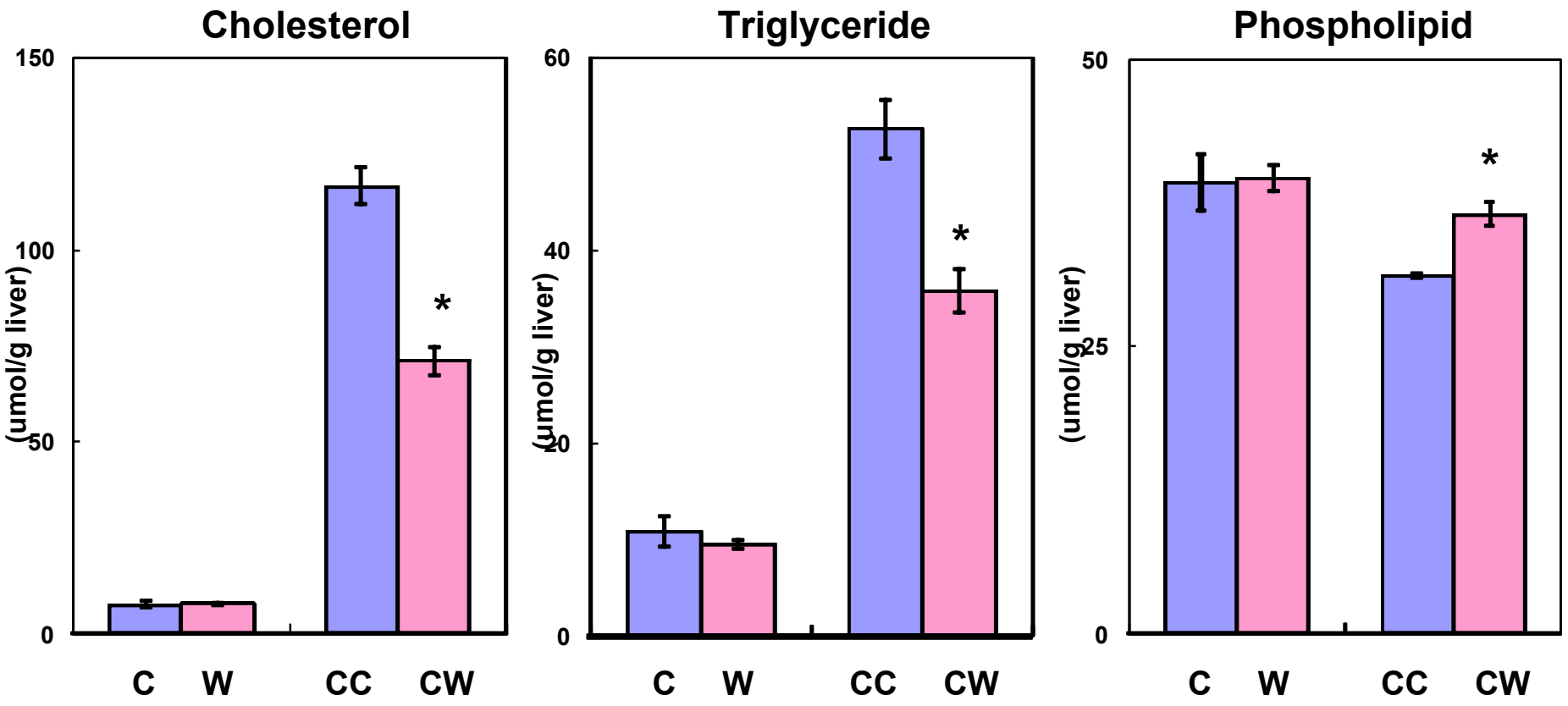
Values are means ± standard errors of 5 rats.



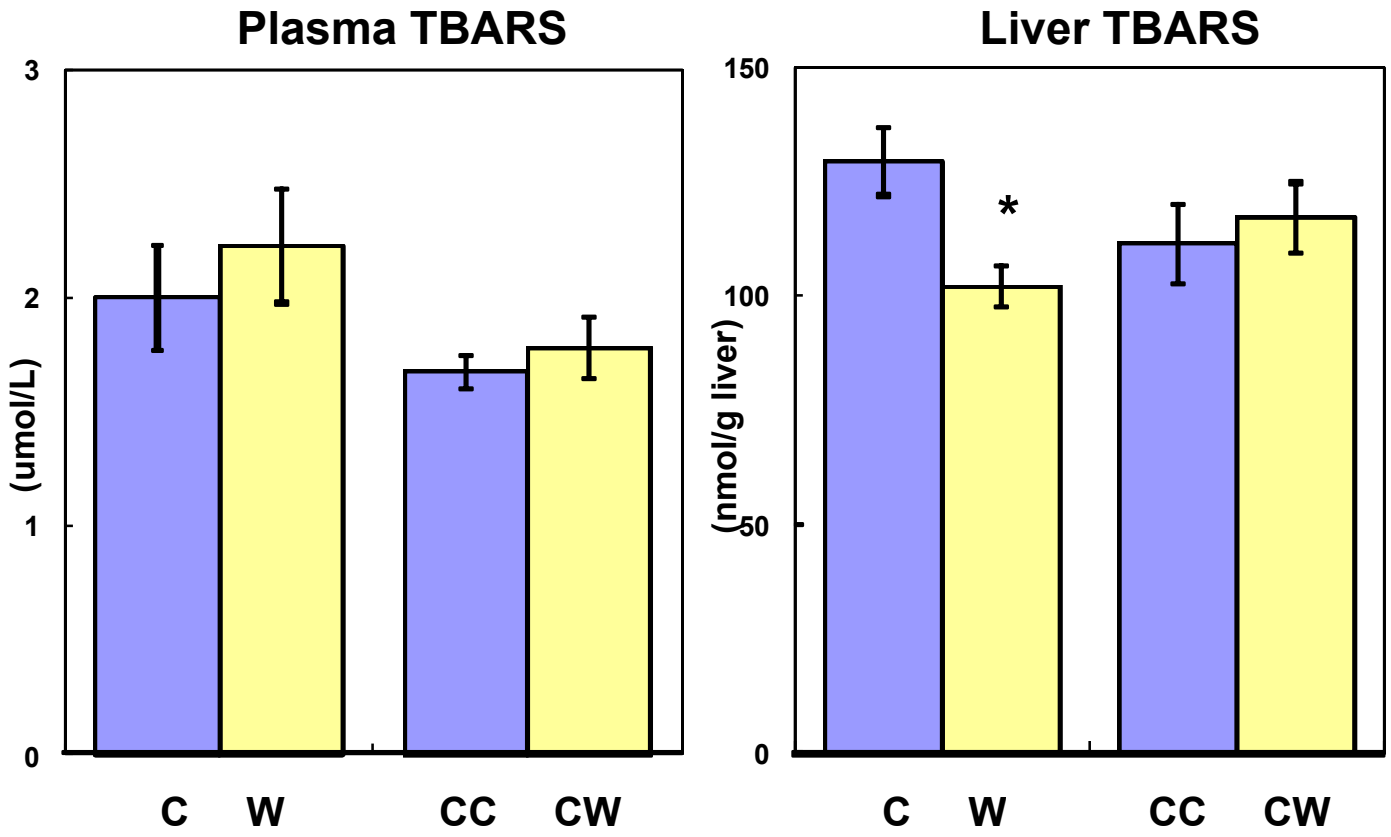
Serum cholesterol concentration



Serum lipid concentration



Liver lipid content



Plasma and liver TBARS value