

**Table S5** Moderating effect of fiber intake on the relationship between *Ruminococcus* and IL-8 level

Variables	Controlling effect				UGLU	<i>Ruminococcus</i>	Fiber	<i>Ruminococcus</i> × Fiber
	Age	BMI	FBG	MS				
Step 1	β	0.28	0.05	-0.17	-0.09	0.09		
	t	2.18	0.43	-1.28	-0.69	0.70		
	p	0.03	0.67	0.21	0.49	0.49		
	ΔF			1.94				
	ΔR <sup>2</sup>			0.13				
Step 2	p			0.10				
	β	0.27	0.01	-0.19	-0.01	0.12	0.35	0.17
	t	2.33	0.07	-1.54	-0.10	1.00	3.13	1.53
	p	0.02	0.94	0.13	0.92	0.32	0.00	0.13
	ΔF					7.99		
Step 3	ΔR <sup>2</sup>					0.18		
	p					0.00		
	β	0.23	0.01	-0.11	-0.01	0.04	0.27	-0.10
	t	2.02	0.07	-0.90	-0.07	0.29	2.41	-0.68
	p	0.05	0.94	0.37	0.95	0.77	0.02	0.50
	ΔF						7.44	
	ΔR <sup>2</sup>						0.08	
	p						0.01	

Abbreviations: FBG: fasting blood glucose; UGLU: urine glucose level; MS: menstrual status; BMI: body mass index