

– Supplementary Material –

Extrusion and chlorogenic acid treatment increase ordered structure and resistant starch levels in rice starch with amelioration of gut lipid metabolism in obese rats

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Table S1 Molecular weight and molecule distribution of S and ES

Samples	M _w (10 ⁷ g/mol)	R _g (nm)	Molecular weight (%)				
			< 1×10 ^{7b}	1-1.5×10 ⁷	1.5-2×10 ⁷	2-3×10 ⁷	> 3×10 ⁷
S	2.354(2%) ^a	114.6(0.9%)	0	0	29.95	56.88	13.17
ES	1.521(0.8%)	78.6(1%)	0	46.67	50.77	2.56	0

Table S2 Pearson correlation coefficient between PG and serum indices ^a

PG	TC	TG	HDL-C	LDL-C	Glucose	AST	ALT	AKP
PG(22:1/16:0)	-0.407	-0.649*	0.544	-0.625*	-0.54	-0.699*	-0.682*	-0.529
PG(22:0/16:0)	-0.165	-0.536	0.559	-0.709**	-0.56	-0.595*	-0.211	-0.386
PG(18:0/18:1)	-0.409	-0.638*	0.541	-0.633*	-0.528	-0.747**	-0.663*	-0.555
PG(22:1/18:2)	-0.091	-0.481	0.518	-0.695*	-0.377	-0.674*	-0.107	-0.426
PG(17:0/16:0)	-0.468	-0.651*	0.640*	-0.743**	-.650*	-0.788**	-0.681*	-0.645*
PG(20:0/18:1)	-0.194	-0.556	0.576	-0.698*	-0.523	-0.635*	-0.257	-0.454
PG(16:0/0:0)	-0.13	-0.102	-0.004	-0.1	-0.168	-0.175	-0.23	-0.101
PG(16:0/18:1)	-0.149	-0.065	0.191	-0.458	-0.482	-0.438	-0.373	-0.169
PG(16:0/15:0)	0.014	0.152	0.015	-0.264	-0.241	-0.235	-0.206	-0.019
PG(18:0/16:0)	-0.119	-0.332	0.391	-0.689*	-0.395	-0.546	-0.43	-0.384
PG(20:1/18:1)	-0.232	-0.563	0.494	-0.619*	-0.52	-0.636*	-0.664*	-0.37
PG(24:0/16:0)	-0.049	-0.43	0.438	-0.653*	-0.54	-0.502	-0.14	-0.266
PG(18:1/16:0)	-0.642*	-0.678*	0.652*	-0.534	-.665*	-0.484	-0.668*	-0.588*
PG(8:0/26:0)	0.018	-0.421	0.366	-0.731**	-0.478	-0.650*	-0.086	-0.453
PG(20:0/20:0)	-0.064	-0.249	0.436	-0.602*	-0.421	-0.620*	-0.25	-0.215
PG(16:0/17:1)	-0.012	0.122	0.098	-0.338	-0.307	-0.285	-0.225	-0.045
PG(16:0/16:0)	0.12	0.066	-0.039	-0.367	-0.219	-0.4	-0.232	-0.018
PG(16:0/16:1)	0.125	-0.083	0.153	-0.616*	-0.535	-0.267	-0.235	-0.16
PG(24:1/20:1)	-0.103	-0.543	0.496	-0.701*	-0.493	-0.425	-0.265	-0.351
PG(17:0/15:0)	-0.026	-0.049	0.178	-0.559	-0.645*	-0.314	-0.304	-0.091
PG(15:1/18:1)	-0.202	-0.378	0.4	-0.49	-0.33	-0.201	-0.226	-0.417
PG(18:1/18:1)	-0.03	-0.354	0.342	-0.552	-0.452	-0.358	-0.338	-0.169
PG(21:0/16:0)	-0.225	-0.526	0.435	-0.551	-0.472	-0.307	-0.478	-0.405
PG(19:0/18:2)	-0.267	-0.553	0.442	-0.49	-0.363	-0.497	-0.513	-0.509
PG(22:6/17:1)	-0.342	-0.39	0.521	-0.381	-0.356	-0.161	-0.514	-0.285
PG(15:0/16:0)	-0.133	0.068	0.01	-0.179	-0.189	-0.321	-0.384	0.122
PG(17:1/24:0)	0.226	-0.309	0.04	-0.366	-0.206	-0.054	0.038	-0.24
PG(25:0/16:0)	-0.071	-0.162	0.131	-0.176	-0.331	-0.048	-0.132	-0.044
PG(16:0/14:0)	0.138	-0.241	0.38	-0.478	-0.285	-0.654*	-0.139	-0.213
PG(22:4/16:0)	-0.103	-0.304	0.29	-0.498	-0.507	-0.386	-0.276	-0.24
PG(21:0/18:0)	0.284	-0.274	0.097	-0.489	-0.339	0.076	0.154	-0.121
PG(22:5/16:0)	-0.037	-0.095	0.04	-0.123	-0.048	-0.371	-0.404	0.074
PG(18:2/18:2)	-0.078	-0.399	0.337	-0.508	-0.545	-0.226	-0.322	-0.278
PG(22:6/22:5)	-0.198	-0.612*	0.478	-0.657*	-0.619*	-0.426	-0.209	-0.48
PG(18:1/16:1)	0.076	0.109	0.006	-0.377	-0.319	-0.248	-0.338	0.05
PG(22:6/22:6)	-0.077	-0.497	0.406	-0.533	-0.458	-0.376	-0.036	-0.354
PG(20:0/15:0)	0.087	-0.033	-0.051	-0.321	-0.208	-0.136	-0.111	-0.167
PG(22:2/16:1)	-0.105	-0.027	0.031	-0.087	0.012	0.205	-0.175	-0.041
PG(18:1/18:2)	0.06	-0.215	-0.04	-0.283	-0.36	-0.125	-0.232	-0.074

^a $P < 0.05$, *; $P < 0.01$, **

Table S3 Main ingredients of basal diet

Ingredient	Content (g/kg)
Rice starch	397.5
Casein	200
Maltodextrin	122-132
Sucrose	100
Soya bean oil	70
Cellulose	50
Mixed minerals AIN-93G-MX	35-38
Mixed Vitamins AIN-93G-VM	10-12
L-Cystine	3-5
Choline Chloride	2.5-3

Table S4 Main ingredients of high-fat diet

Ingredient	Content (g/kg)
Rice starch	440
Lard oil	150
Casein	100
sucrose	100
Egg yolk powder	100
Cellulose	50
Mixed minerals AIN-93G-MX	35-38
Mixed Vitamins AIN-93G-VM	15-12
Cholesterol	10
Methionine	3-5
Choline Chloride	2-2.5