Electronic Supplementary Material (ESI) for Food & Function.

Supplementary material

Fig. S1

The homogeneity of GFP analyzed by HPSEC-MALLS. LS: light scattering detector, dRI: differential refractive index detector.

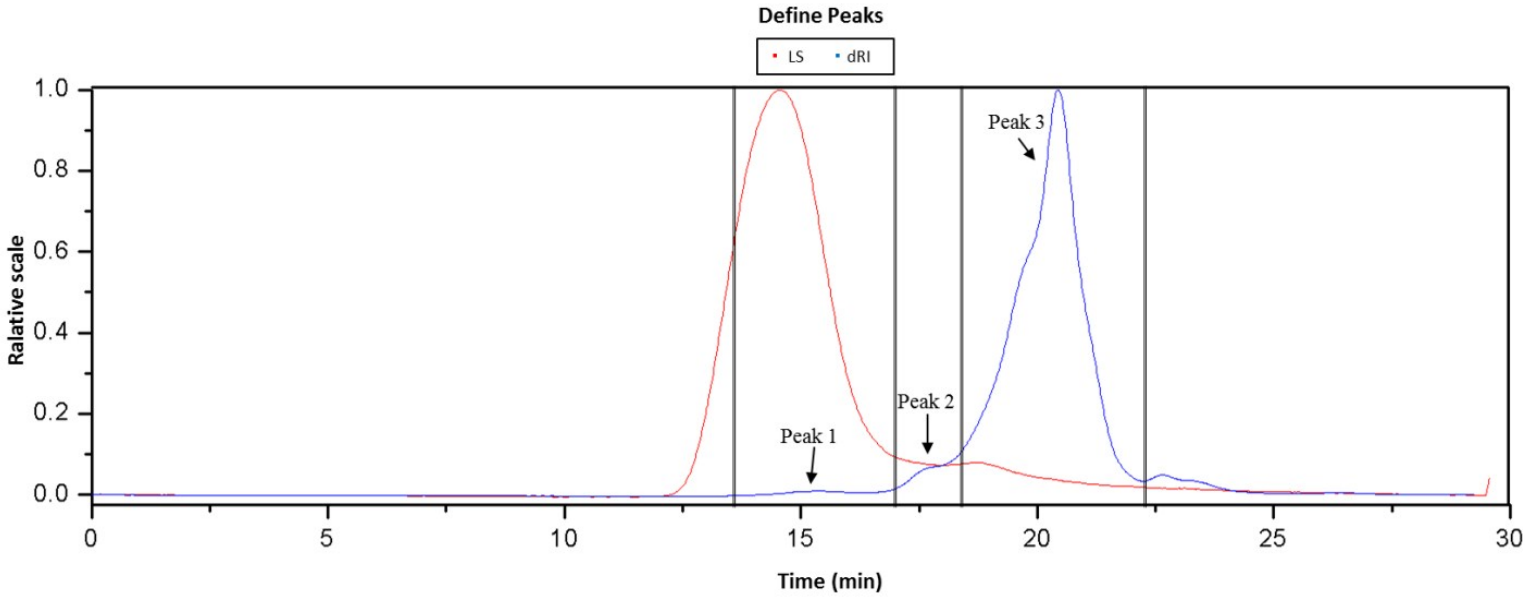
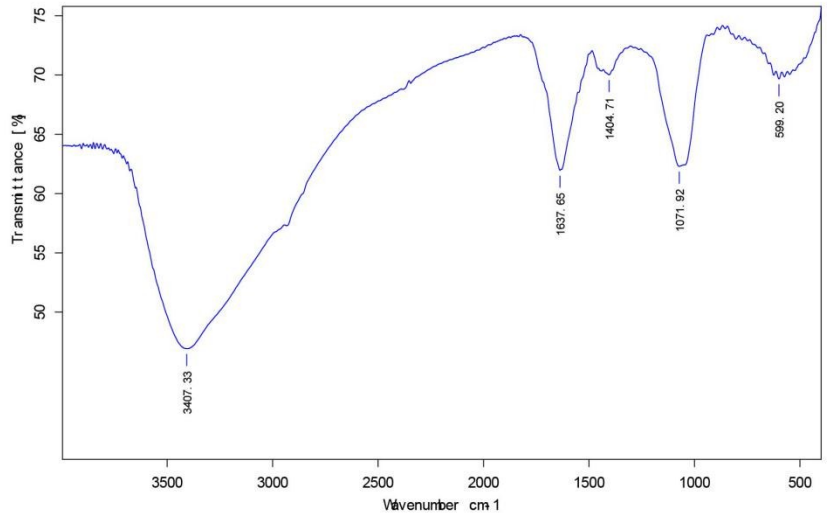


Fig. S2

FT-IR spectrum for KBr pellets of GFP.



Method: 2 mg of GFP was ground with 400 mg of dried KBr (Potassium bromide) power. The resulting powder was transferred to a compression mold and pressed under vacuum into tablets. The organic functional groups of the polysaccharide fractions were identified using a FT-IR spectroscopy (Thermo Nicolet, AVATAR360, USA) at 4000–400 cm^{-1}, with 16–32 scanning times and 4-cm-1resolution. The data obtained by FT-IR were analyzed by OPUS 7.2 Spectroscopy Software

Table S1

Relevant molecular parameters of GFP in MALLS analysis.

Peak No.	Molar mass moments (Da)			Polydispersity		RMS radius moments (nm)		
	M_w	M_z	M_n	M_w/M_n	M_z/M_n	R_n	R_w	R_z
Peak 1	1.585×10^7 (±0.3%)	6.727×10^7 (±0.7%)	8.598×10^6 (±0.5%)	1.843 (±0.6%)	7.824 (±0.9%)	30.7 (±2%)	28.2 (±2.0%)	27.9 (±1.0%)
Peak 2	2.807×10^5 (±1.0%)	5.694×10^5 (±2.0%)	2.024×10^5 (±1.0%)	1.387 (±2.0%)	2.814 (±3%)	40.4 (±3.0%)	40.4 (±3.0%)	40.2 (±3.0%)
Peak 3	1.818×10^4 (±2.0%)	4.311×10^4 (±4.0%)	1.007×10^4 (±3.0%)	1.804 (±4.0%)	4.280 (±5.0%)	42.0 (±6%)	41.3 (±6.0%)	40.1 (±5.0%)

Table S2

Dietary energy distribution of the normal-chow diet (NFD, MD12031) and high-fat diet (HFD, MD12032) purchased from Jiangsu Medicience Ltd. (Yangzhou, Jiangsu, China).

Nutritional Components	MD12031 (kacl%)	MD12032 (kacl%)
Protein	20	20
Fat	10	45
Carbohydrate	70	35

Table S3

Composition of normal-chow diet and high fat diet used in the animal experiment

Normal-chow diet		**High fat diet**	
Ingredients	**%**	**Ingredients**	**%**
Corn meal	52	Normal-chow diet	63.6
Soybean flour	23	Sucrose	20
Wheat bran	11	Lard	15
Flour	9	Cholesterol	1.2
Calcium salt	2	Cholate	0.2
Mixed vitamin	3		

Table S4

Primer sequences for quantitative real-time PCR

Gene	Full Name of Gene	Forward primer (5′−3′)	Reverse primer (5′−3′)
AMPKα	adenosine 5'-monophosphate (AMP)-activated protein kinase alpha	GGCTGAGAAGCAGAAGCACGAC	CCAACAACATCTAAACTGCGAATC
ACAT2	acetyl-coenzyme A acetyltransferase 2	GAACGTGGTGGTCCATGACT	TTCAGCAGACCTCCAACCAC
GS	glycogen synthase	TGGTCGCTGGCTGATAG	CCAGGGGATTCCTATGC
CYP7A1	cholesterol 7α-hydroxylase	CTGCGAAGGCATTTGGACACAGA	GCATCTCCCTGGAGGGTTTTGGT
Acox1	acyl-CoA oxidase 1	TTACATGCCTTTGTTGTCCCTATC	CGGTAATTGTCCATCTTCAGGTA
SOD	superoxidedismutase	GATGAAGAGAGGCATGTTGGA	AAGTCATCTTGTTTCTCGTGGA
CAT	catalase	CAAGCTGGTTAATGCGAATGG	TTGAAAAGATCTCGGAGGCC
PPARγ	peroxisome proliferator-activated receptor gamma	CACGAAGCCTACCTGAAGAACT	CTTTAGGAACTCTCGGGTGATG
BSEP	bile salt export pump	CGTGCTTGTGGAAGAAGTTG	GGGAGTAGATGGGTGTGACTG
β-ACTIN	β-Actin (Reference gene)	ACGTCGACATCCGCAAAGACCTC	TGATCTCCTTCTGCATCCGGTCA