Supplementary material

Structural characterization of a homopolysaccharide with hypoglycemic activity from roots of *Pueraria lobata*

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List of Figures

Fig. S1. The homogeneity of PLP-1 determined by HPGPC-RID methods.

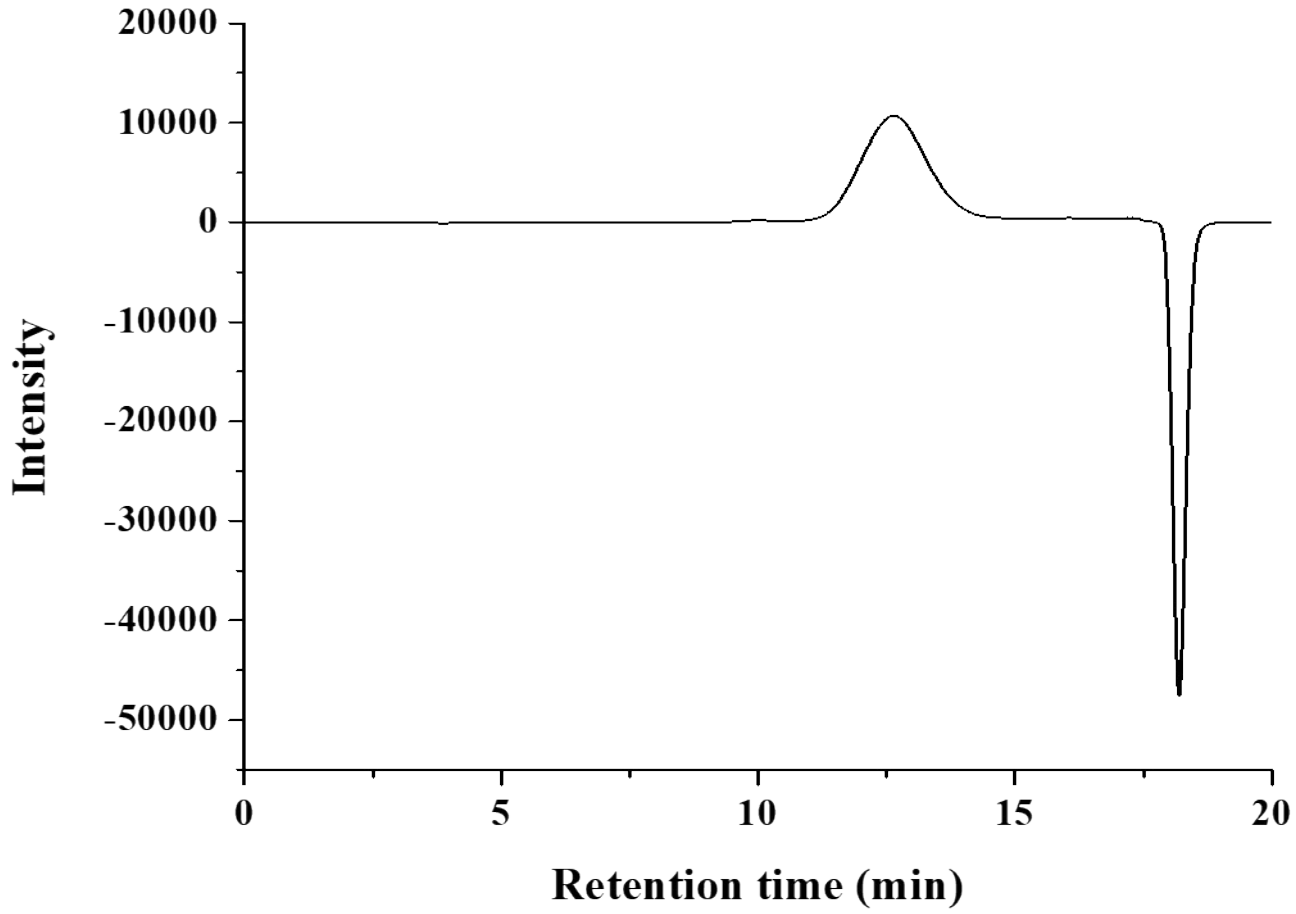
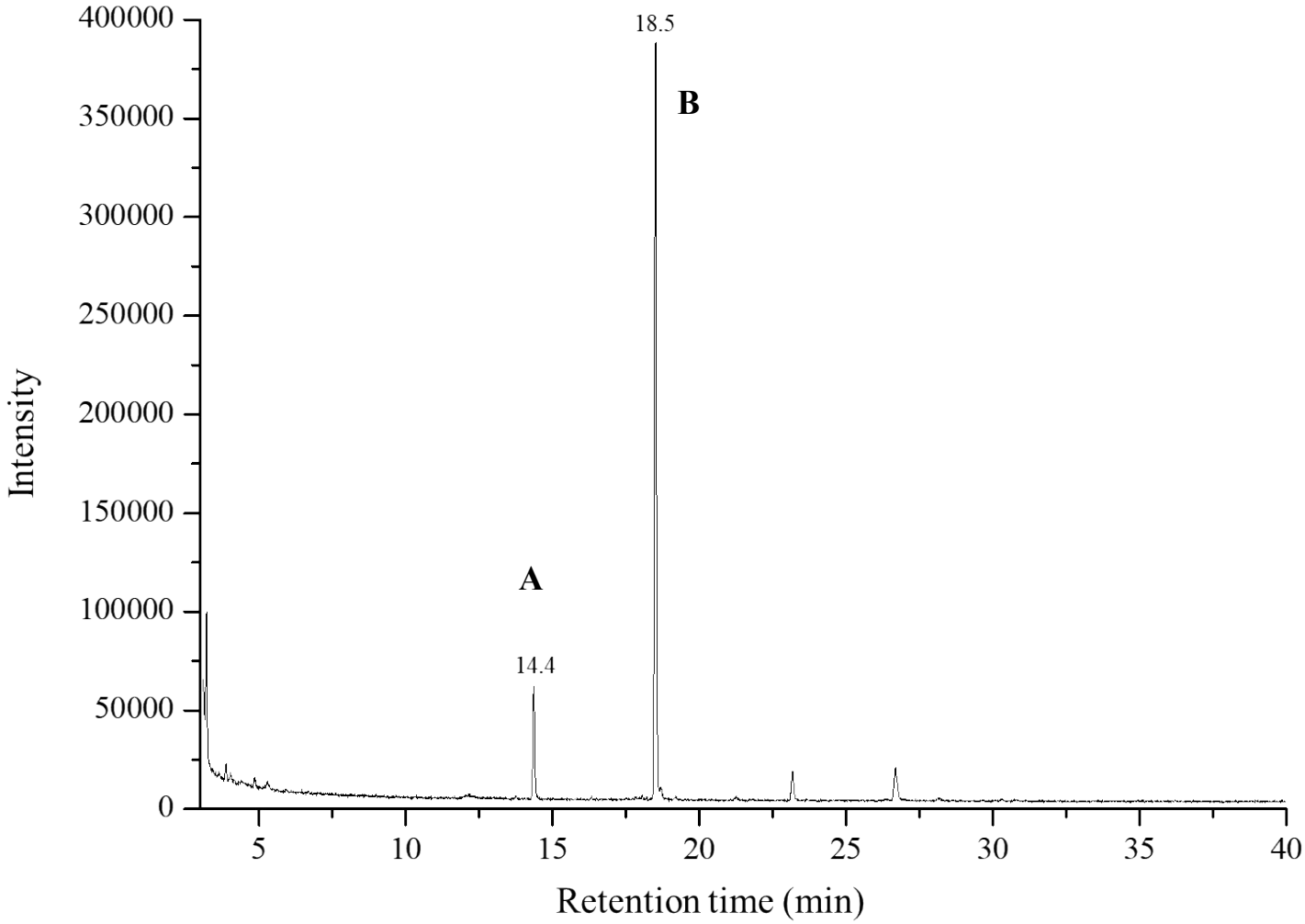


Fig. S2. GC-MS chromatography of methylation and fragments for PLP-1.



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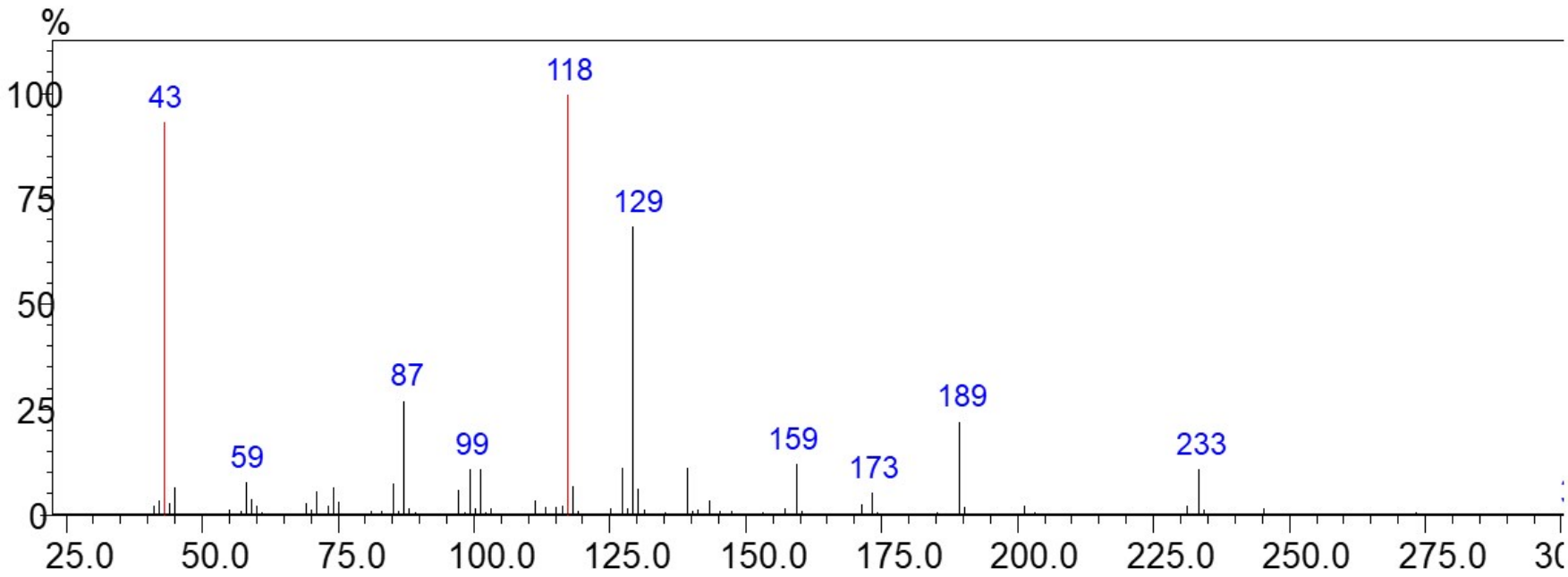
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B

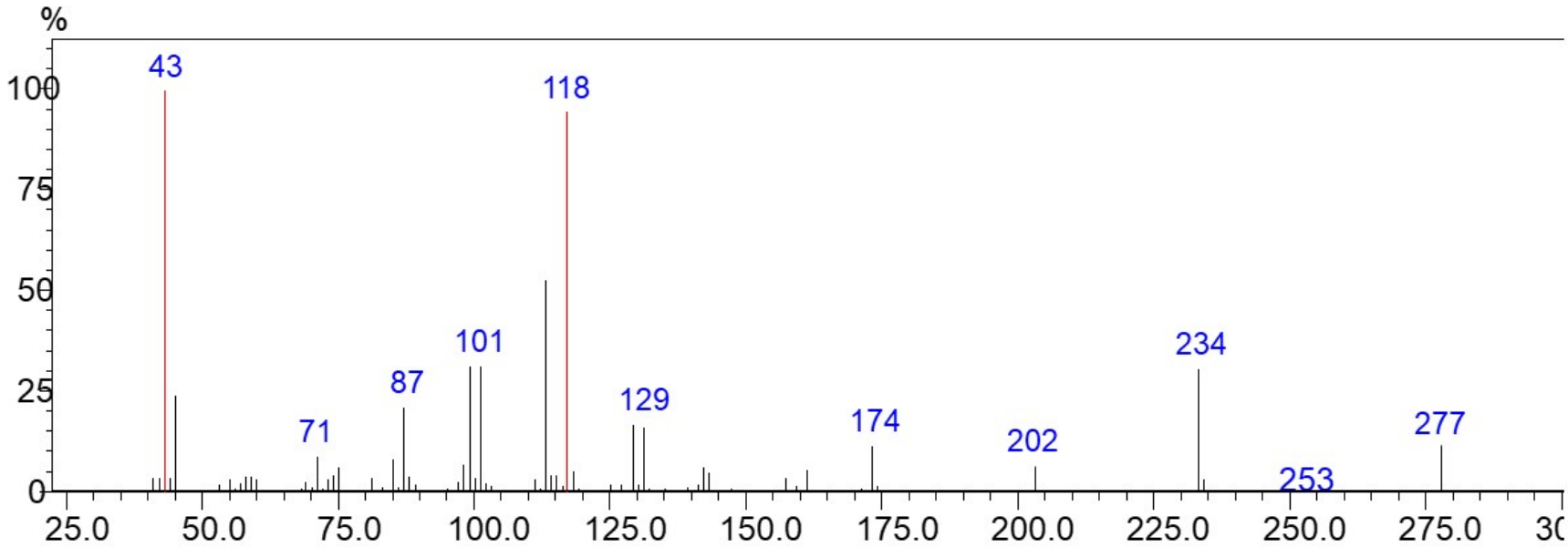
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Fig. S3. ^{1}H NMR spectrum of PLP-1.

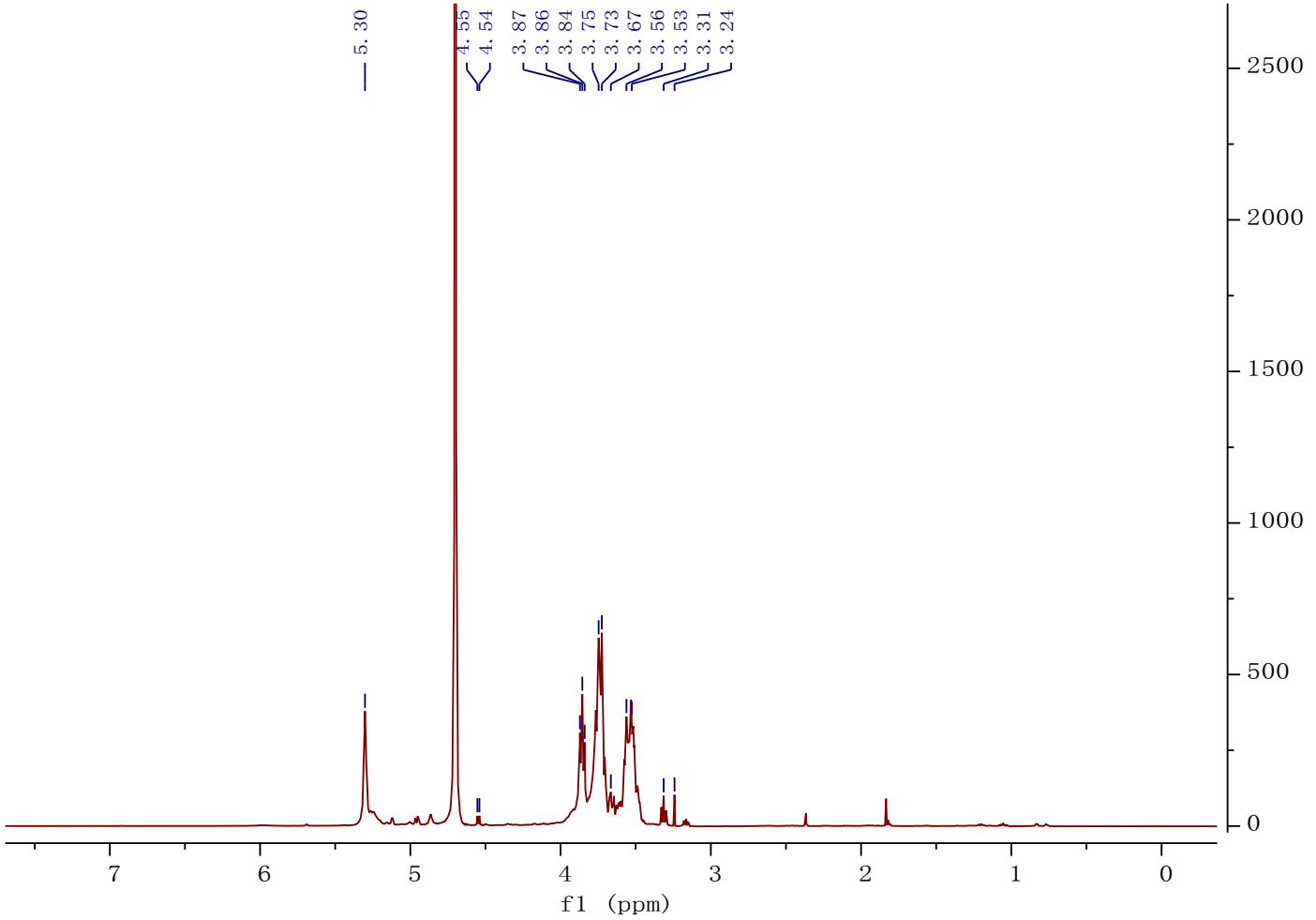

Fig. S4. ^{13}C NMR spectrum of PLP-1.

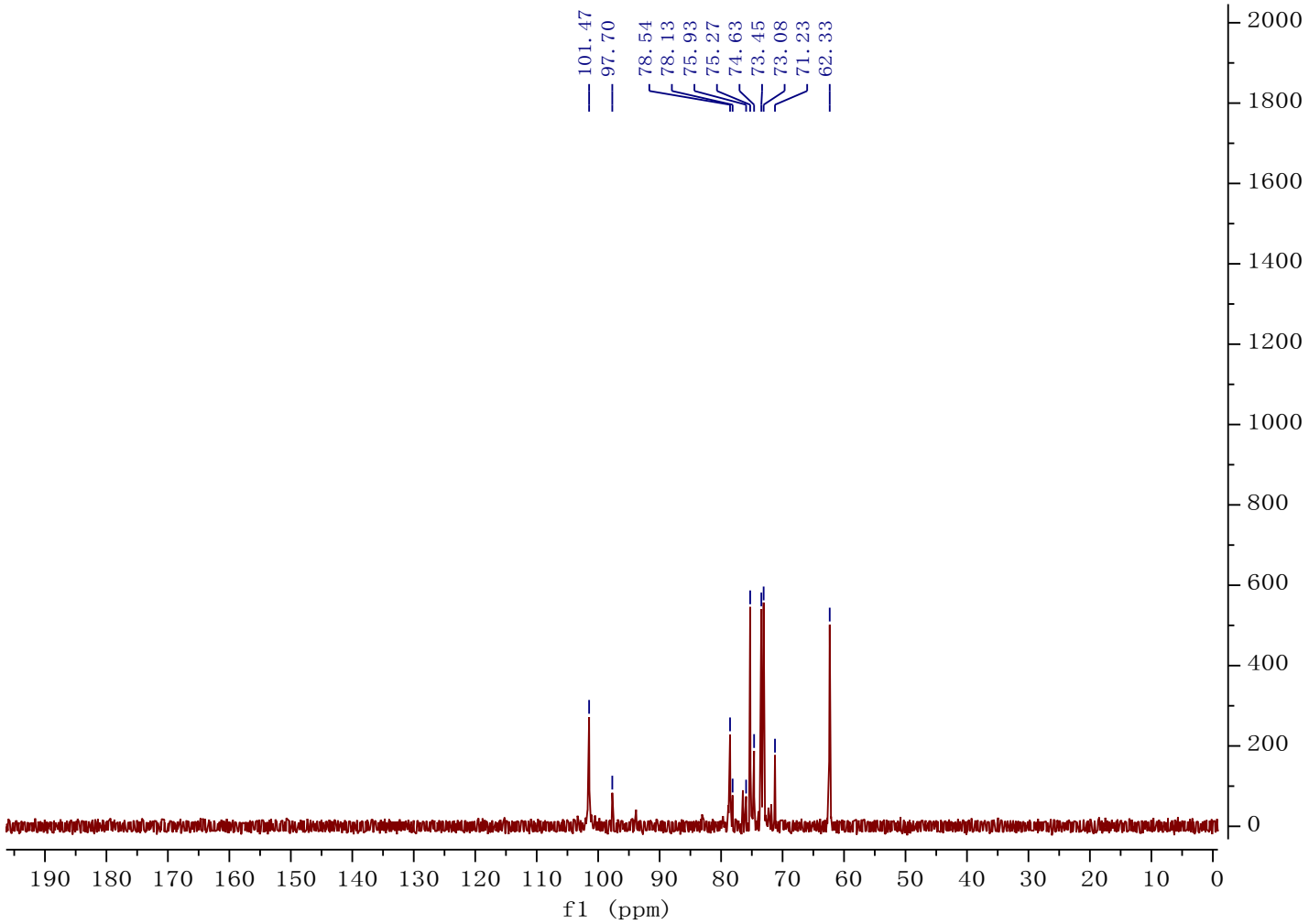

Fig. S5. DEPT-135° spectrum of PLP-1.

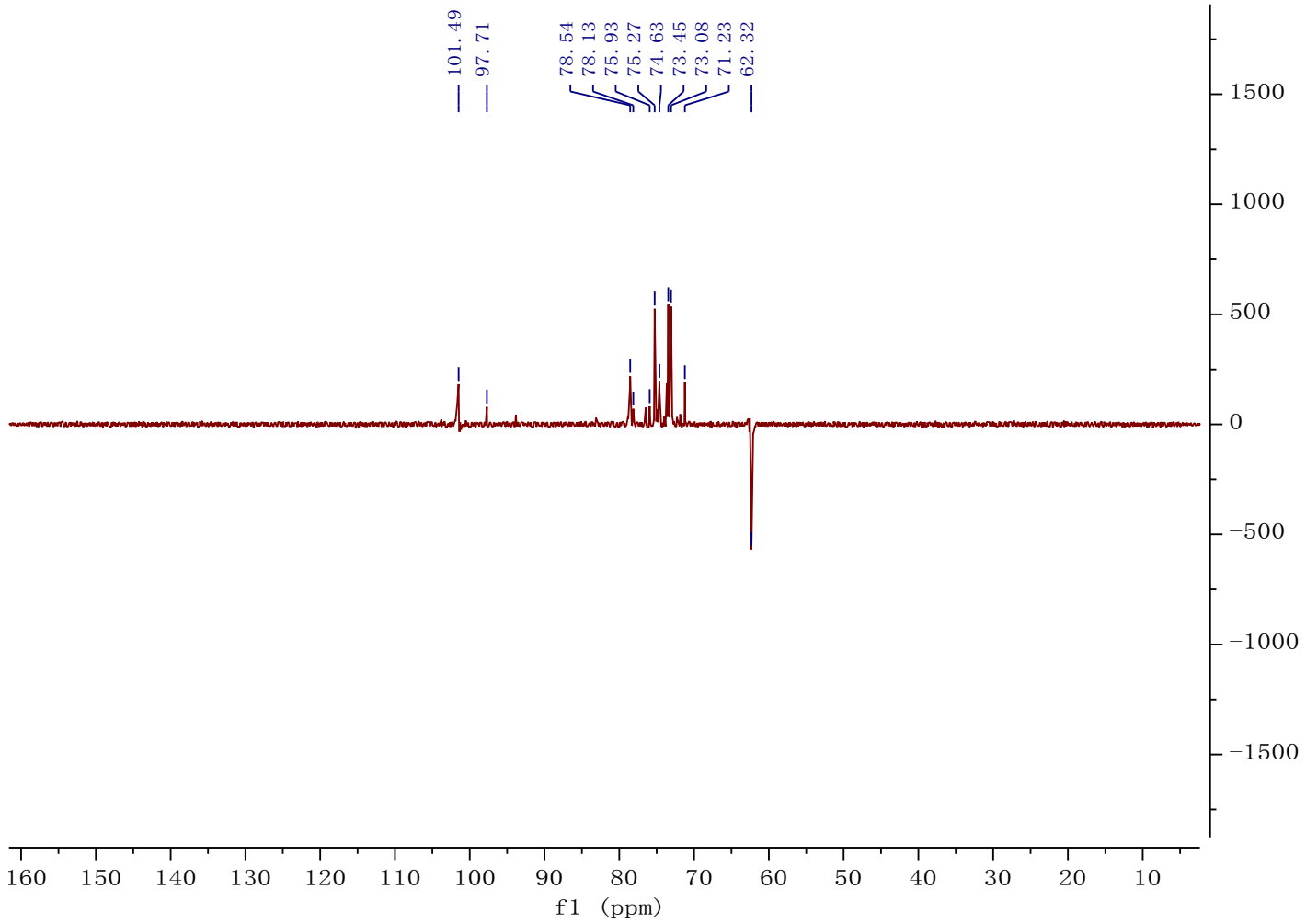

Fig. S6. HSQC spectrum of PLP-1.

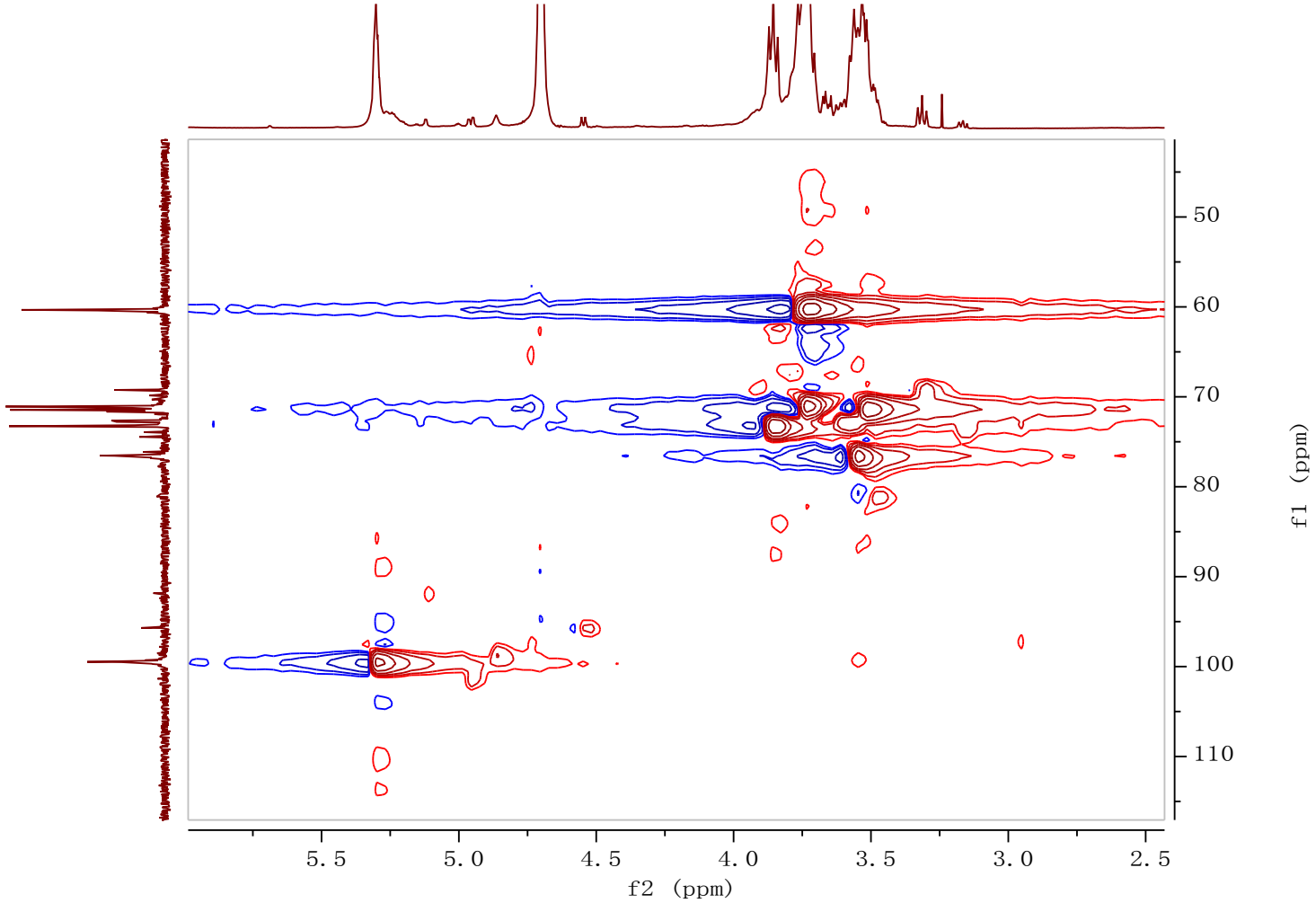

Fig. S7. HMBC spectrum of PLP-1.

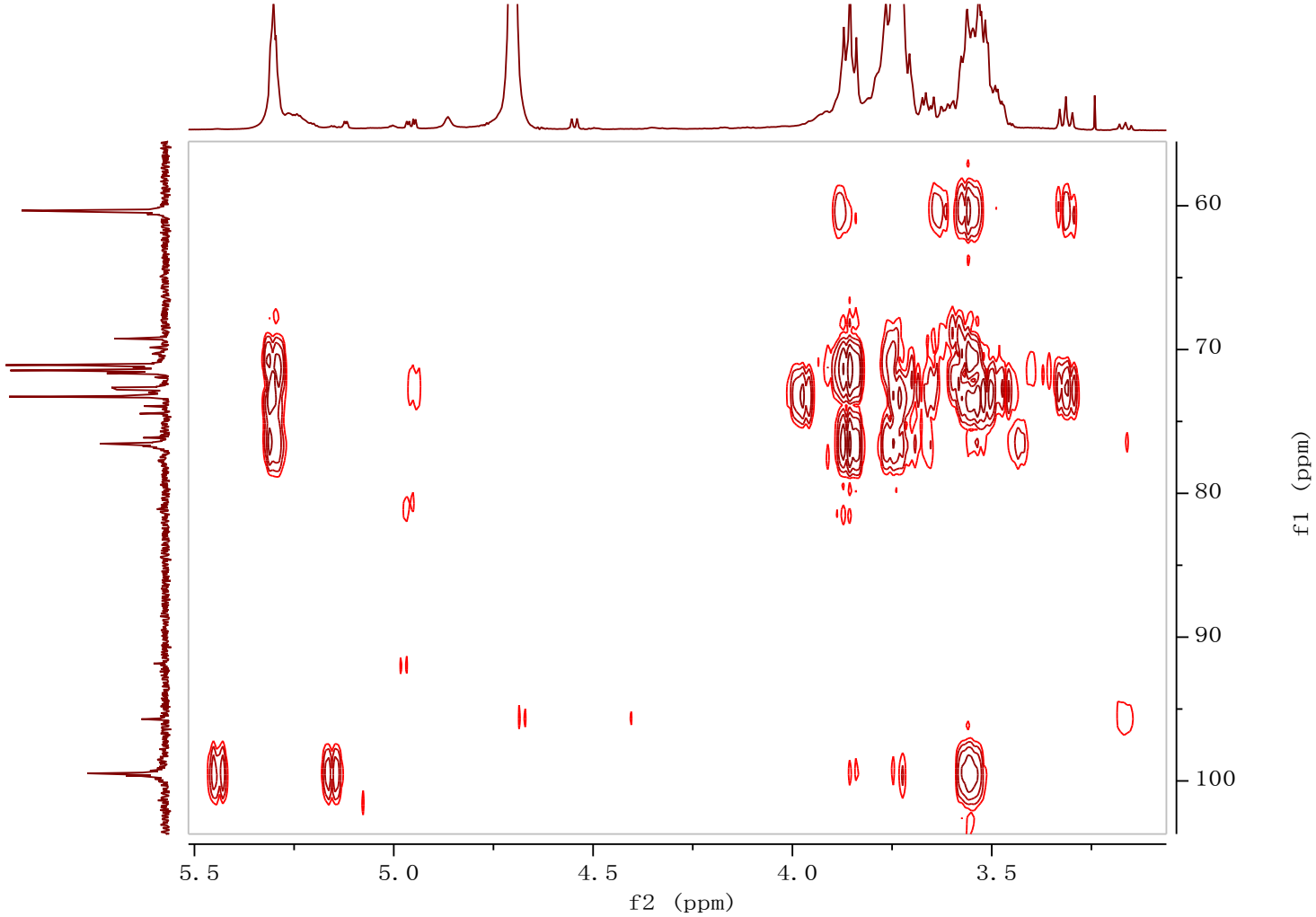

Fig. S8. The proposed structure of PLP-1.

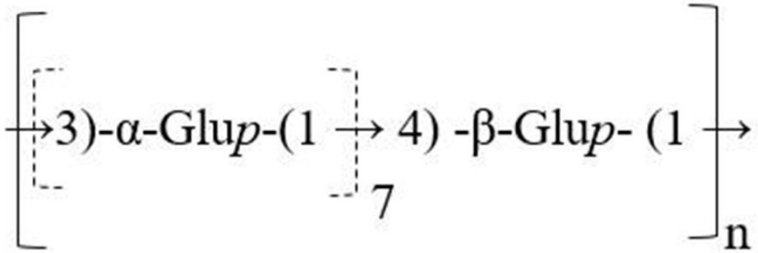

Fig. S9. The protein expression of PI3K, AKT, GSK-3β, FoxO1, PCK2, G6Pase in IR HepG2 cell.

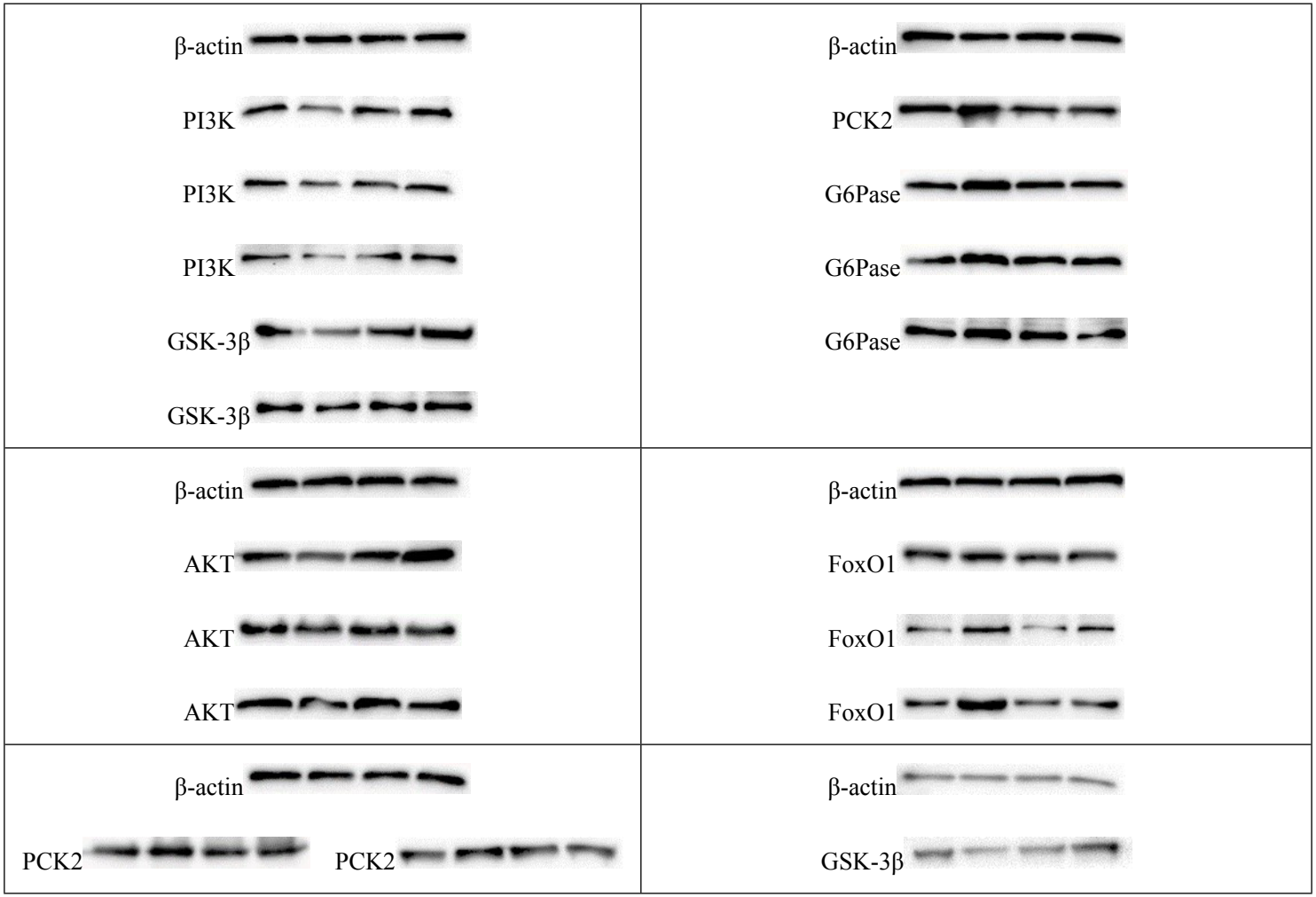

Table S1. Primer sequences used in RT-PCR.

Gene	Forward primer (5'—3')	Reverse primer (5'—3')
β-actin	CCTTCCTGGGCATGGAGTC	TGATCTTCATTGTGCTGGGTG
PI3K	TGATGGAGAGAGAGCAGTTCC	AACTACAGAAGTGTGAGAGACAA
AKT	GGACAAGGACGGGCACATTA	CGACCGCACATCATCTCGTA
GSK-3β	CACAGTGAAGTGCTGGCAAC	AGGAAGGCCTAAGGTCCACT
FoxO1	CCACATTCAACAGGCAGCAG	CCATCCACATCGAGGCTCC
PCK2	ACCAATGTGGCTGAGACCAG	CACCATTAAGGTGCTGAGGC
G6Pase	GACTGGCTCAACCTCGTCTT	TAGTATACACCTGCTGTGCCC

Abbreviation: RT-PCR, real-time reverse transcription PCR.

Table S2 Chemical characteristics of the PLP-1.

Extraction yield (% *w/w*)	Total sugar (% *w/w*)	Protein (% *w/w*)	Mw (kDa)
2.0	98.7	0.4	16.2