Supplementary material

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

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\begin{array}{c}
\rightarrow 3)\alpha\text{-Glup-(1} \\
\downarrow 7 \\
\rightarrow 4)\beta\text{-Glup-(1} \\
\downarrow n
\end{array}
\]
**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| CCTTCCTGGGCACTGGAGTC         | TGATCTTCAATTGTGCTGGGTG        |
| PI3K   | TGATGGAGAGAGAGCATTTCC         | AACTACAGAAGTGTAGAGACAA        |
| AKT    | GGACAAGGACGGGCGACATTA         | CGACCACATCATCTCGTA            |
| GSK-3β | CACAGTGAAATGCTGGCAAC          | AGGAAGGCCTAAGGTCCACT          |
| FoxO1  | CCACATTCAACAGGCAGCAG          | CATCCACATCGAGGCTCC            |
| PCK2   | ACCAATGTGGCTAGAGACCAG         | CACCATTAGGTGCTAGGC            |
| G6Pase | GACTGGCTCAGCTGCTCTT           | TAGTATACACCTCTGCTGCCC         |

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     |