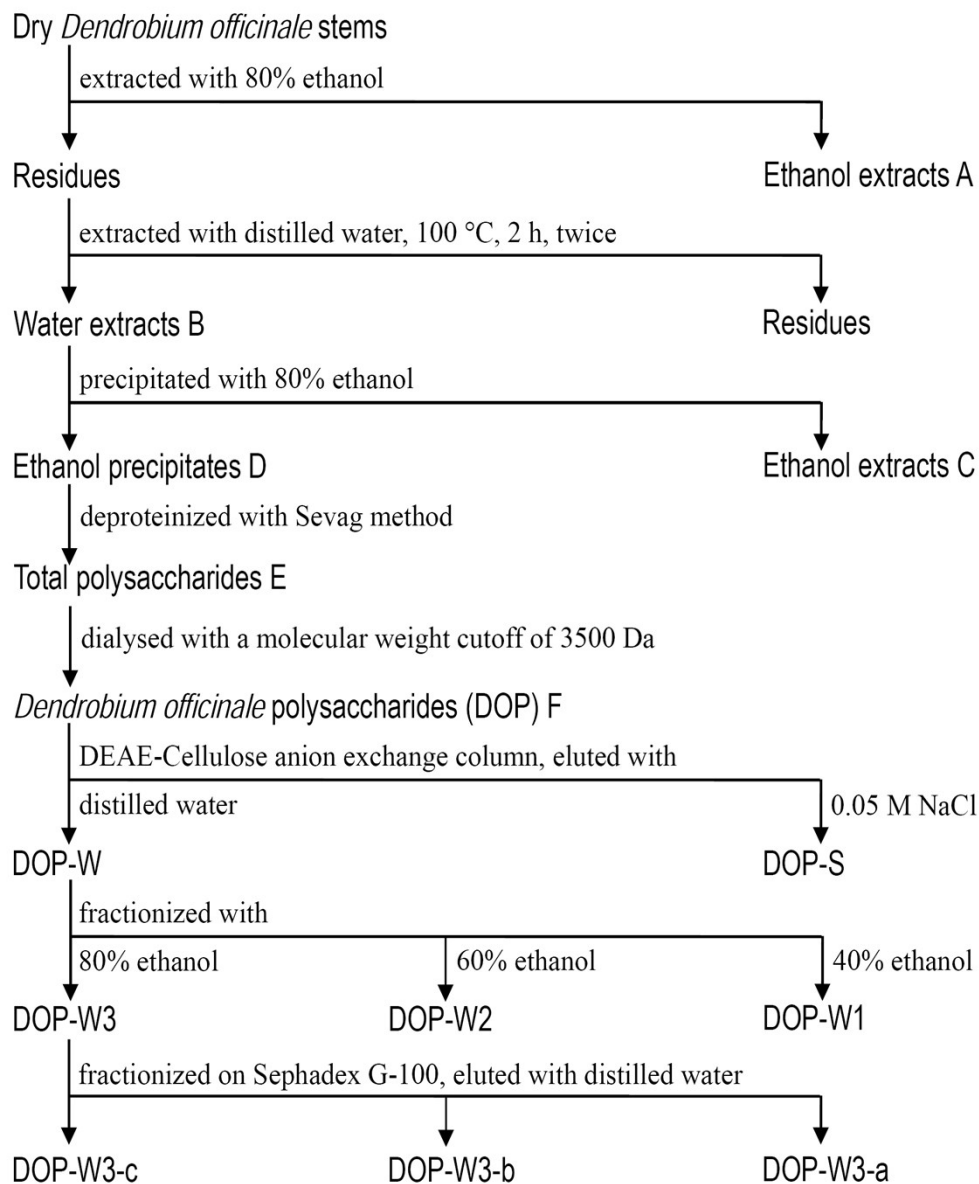


Supporting information

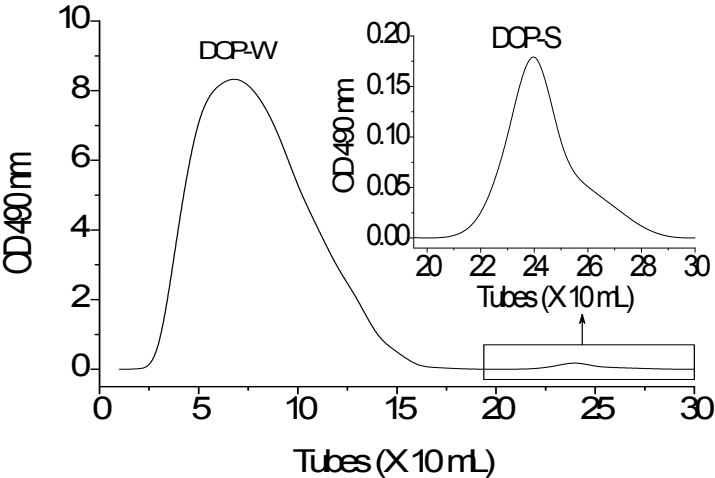
S.1

Sequential extraction and fractionalization procedure of *Dendrobium officinale* stems



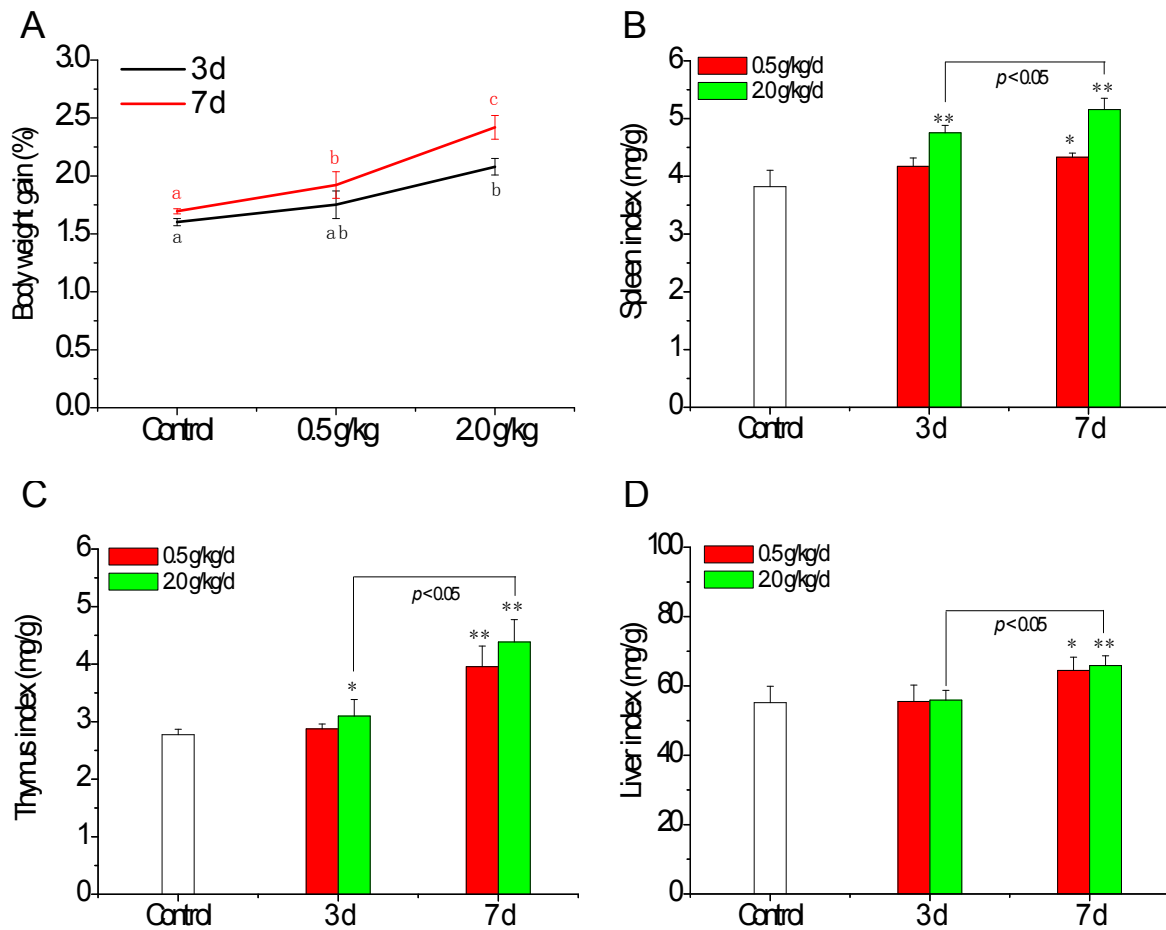
S.2

Elution chromatogram of DOP on DEAE-cellulose anion exchange column



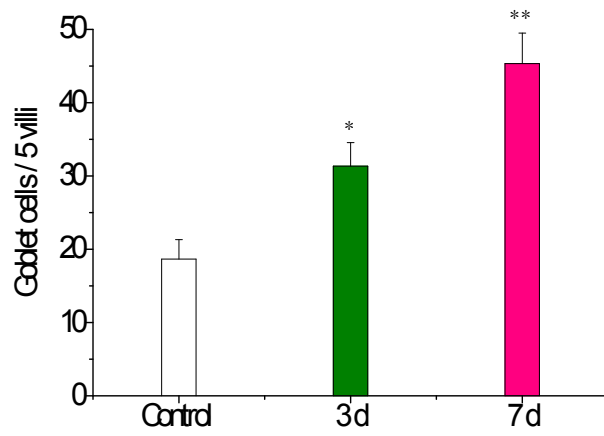
S.3

Effects of oral administration period and doses of DOP-W3-b on body weight gains (A), spleen index (B), thymus index (C) and liver index (D) in mice. In A, means with different lowercases are significantly different ($p < 0.05$). In B-D, * and ** indicate significant differences at the level of $p < 0.05$ and $p < 0.01$ as compared with control, respectively. Body weight gain (%) = [(body weight of day 3 or 7 – body weight of day 0) / body weight of day 0] × 100. Index (mg/g) = (organ weight) / (body weight).



S.4

Number of goblet cells in the ileum of untreated mice and mice orally administrated with 2.0 g/kg DOP-W3-b. * and ** indicate significant differences at the level of $p < 0.05$ and $p < 0.01$ as compared with control, respectively.



S.5

Methylation analysis of DOP-W3-b.

A. TIC profile of methylated alditol acetylates; **B.** Mass fragment of 12.739 min (2,3,4,6-Me₄-GlcP); **C.** Mass fragment of 15.242 min (2,3,6-Me₃-Manp); **D.** Mass fragment of 16.576 min (2,3,6-Me₃-GlcP); **E.** Mass fragment of 19.173 min (2,4-Me₂-Manp); **F.** Mass fragment of 23.979 min (3,6-Me₂-Manp)

