Supporting Information to:

Triterpenes from *Acanthopanax sessiliflorus* Fruits and their Antiplatelet Aggregation Activities

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**Isolation Procedures**

The fruits of *A. sessiliflorus* were collected from WuJia Agriculture Sci-Tech Co. Ltd. of Dandong, Liaoning Province, China in October, 2006 and identified by Associate Professor Jincai Lu of School of the Traditional Chinese Materia Medica of Shenyang Pharmaceutical University, China. A voucher specimen (WGWJ 061001) was deposited in School of Pharmacy of Shenyang Pharmaceutical University, China.

The dried and powdered fruit (12 kg) of *A. sessiliflorus* (Rupr. et Maxim.) Seem. was extracted with 70% EtOH (3 × 96 L) under reflux and filtered. The combined filtrate was concentrated under vacuum resulting in 5.8 kg residue. The residue was absorbed on 1.0 kg of a D101 macroporous adsorption resin column (9 × 120 cm) and eluted with H₂O, 30% EtOH, 60% EtOH and 95% EtOH, successively. The 95% EtOH fraction (100 g) was separated on a silica gel column (9 × 120 cm, 1 kg) eluted with a gradient of CHCl₃-MeOH (100:0, 100:1, 80:1, 50:1, 30:1, 20:1, 10:1, 5:1, 2:1 and 1:1, 1.2 L each) to give 350 fractions (Frs.1-350). Fr. 307 (1 g) was rechromatographed on a silica gel column (1.5 × 60 cm, 20 g) and was eluted with CHCl₃-MeOH (10:1, 500 mL) to afford subfractions F1-F10. F7 (1 g) was purified on a Sephadex LH-20 column (2.0 × 60 cm, 50 g) using MeOH as the eluent to afford **1** (30 mg). Fr. 316 (4 g) was rechromatographed on a silica gel column (2.2 × 60 cm, 60 g) and eluted with CHCl₃-MeOH (10:1, 1 500 mL) to afford subfractions G1 – G10. G2 (1 g) was rechromatographed on a silica gel column (1.5 × 60 cm, 20 g) and eluted with CHCl₃-MeOH (20:1, 500 mL) to afford **2** (12 mg). Fr.325 (1 g) was rechromatographed on a silica gel column (1.5 × 60 cm, 20 g) and eluted with CHCl₃-MeOH (7:1, 500 mL) to afford **3** (28 mg).

**Platelet preparation and aggregation experiment**

A polyethylene tube of 6 cm was inserted into the right carotid artery of rats after anesthesia with sodium pentobarbital (50 mg/kg *i.p.*, 0.08 mL/100 g body weight) [6]. 4.5 mL whole blood were obtained and mixed with 0.5 mL of 3.8% sodium citrate solution. Blood samples were centrifuged at 200 × g for 8 min at room temperature to obtain the supernatant
platelet-rich plasma (PRP). The residue was centrifuged at 1999 × g for 10 min at room temperature to obtain platelet-poor plasma (PPP). The PRP was adjusted with PPP such as to obtain platelet counts of $4.0 \sim 4.5 \times 10^8$ platelets/mL. Compounds were dissolved in DMSO. 200 μL PRP containing 5 μL compound solution were added into the microcuvette model and incubated at 37 °C for 2 min. After addition of 10 μL ADP (final concentration: 200 μM), the mixture was stirred for 5 min to induce platelet aggregation. Platelet aggregation rates were assessed. The platelet anti-aggregating activity was expressed as IC$_{50}$ values, the concentration of the compounds causing 50% inhibition. The IC$_{50}$ values were determined with the Regression Wizard from the Sigma Plot equation library.

NMR Spectra of Compound 1 – 3

![NMR Spectra of Compound 1 – 3](image)

Fig. 1S $^1$H-NMR spectrum of 1.
Fig. 2S $^{13}$C-NMR spectrum of 1.

Sample: YCJ-16

Fig. 3S HSQC spectrum of 1.
Fig. 4S HMBC spectrum of 1.

Fig. 5S $^1$H spectrum of 2.
Fig. 6S $^{13}$C-NMR spectrum of 2.

Fig. 7S HSQC spectrum of 2.
Fig. 8S HMBC spectrum of 2.

Figure 8S HMBC spectrum of 2.

Fig. 9S NOESY spectrum of 2.

Figure 9S NOESY spectrum of 2.
Fig. 10S $^1$H-NMR spectrum of 3.

Fig. 11S $^{13}$C-NMR spectrum of 3.
Fig. 12S DEPT (135) spectrum of 3.

Fig. 13S HSQC spectrum of 3.
Fig. 14S HMBC spectrum of 3.

Fig. 15S NOESY spectrum of 3.