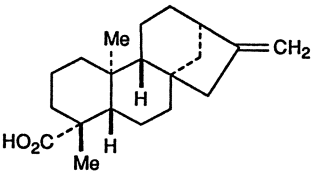
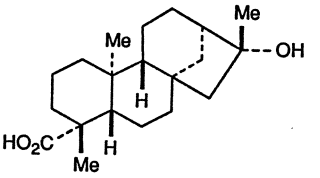


Kaurenoic acid (*1-30*)



16-α-Hydroxy-kauran-18-oic acid (*1-31*)

The total glycoside fraction isolated from *A. gracilistylus* var. *pubescens* was administered i.v. to rabbits with acute myocardial ischemia produced by coronary artery occlusion. A significant decrease in heart rate and blood pressure was seen. The lactic acid concentration and creatine kinase activity were also significantly decreased. The total ST segment elevation within 8 h, the number of total pathologic Q waves, and the infarct size determined by precordial electrocardiogram mapping were markedly reduced [24].

The pharmacokinetics of eleutheroside B, one of the major active principles of *A. senticosus* has been studied. Tritiated eleutheroside B (5 mg/kg) was administered to rats i.p. Maximal levels of radioactivity were observed in blood 15 min after treatment. Urinary excretion of radioactivity reached 35%, 55%, and 90% of the administered dose at 2, 4, and 48 h, respectively. Only 2.5%–3.0% of the administered dose was excreted in the feces [25, 26]. Eleutheroside B is strongly bound to blood serum globulins and albumins and to a much lesser extent to lipids [27].

References [1]

1. Shih CL (1981) Study on chemical constituents in *Acanthopanax senticosus* Harms. Chin Pharm Bull 16:53
2. Frolova GM, Ovodov YS (1971) Triterpenoid glycosides of *Eleutherococcus senticosus* leaves. II. Structure of eleutherosides I, K, L and M. Khim Prir Soedin 618–622 (CA 76:59965r)
3. Yun-Choi HS, Kim SO, Lee JR (1986) Platelet anti-aggregating plant materials. Korean J Pharmacogn 17:161 (CA 105:222802 p)
4. Hikino H, Takahashi M, Otake K, Konno C (1986) Isolation and hypoglycemic activity of eleutherans A, B, C, D, E, F, and G, glycans of *Eleutherococcus senticosus* roots. J Nat Prod 49:293–297
5. Xu ZB, Tong WJ, Yang G (1984) Assay of active constituents in different parts of manyprickle acanthopanax (*Acanthopanax senticosus*). Chin Trad Herb Drugs 15:224–226
6. Suu WJ, Sha ZI (1986) Determination of syringin in *Acanthopanax senticosus* by HPLC. Bull Chin Mat Med 11:234–235
7. Xu ZB, Wang MY (1984) Content variation of some chemical constituents of Ci Wu Jia (*Acanthopanax senticosus*) during storage. Chin Trad Herb Drugs 15:15–17
8. Takasugi N, Moriguchi T, Fuwa TS, Sanada S, Ida Y, Shoji J, Saito H (1985) Effect of *Eleutherococcus senticosus* and its components on rectal temperature, body and grip tones, motor coordination and exploratory and spontaneous movements in acute stressed mice. Shoyakugaku Zasshi 39:232–237 (CA 104:102464n)
9. Nishiyama N, Kamegaya T, Iwai A, Saito H, Sanada S, Ida Y, Shoji J (1985) Effect of *Eleutherococcus senticosus* and its components on sex- and learning-behaviors and tyrosine

[1] Some of the works cited in this and in many subsequent reference lists are also summarized in *Chemical Abstracts*. In each case the appropriate citation is given in parentheses at the end of the reference.