

關鍵詞：野葛；異黃酮；色譜分離；葛根素

### Abstract

In order to search for the bioactive compounds from a traditional Chinese medicine *Pueraria lobata*, systematic chemical study on *P. lobata* were carried out.

Gegen is the dried root of *Pueraria lobata* (Willd.) Ohwi. It tastes sweet, spicy and cool. It has effects on promoting saliva, penetrating exanthema and inhibiting diarrhea. Puerarin, isoflavonoids regarded as one of the main ingredients in this plant, is not only the special ingredient but also the main effective ingredient which has been applied on curing for cardiovascular diseases extensively. In order to search for new active compounds, we committed systematic chemical study on *P. lobata*. 42 compounds have been isolated from the 95% EtOH extract of this plant by using several chromatographic separation techniques and purification methods.

Meanwhile, 32 compounds of them were identified according to their physico-chemical and spectral data as follows: dadzein (GG-1), formononetin (GG-2), 3'-methoxy daidzein (GG-3), dadzin (GG-4), genistin (GG-5), ononin (GG-6), 8-methoxy ononin (GG-7), sissotorin (GG-8), daidzein-4', 7-diglucoside (GG-9), puerarin (GG-10), 4'-methoxy puerarin (GG-11), 3'-methoxy puerarin (GG-12), 3'-hydroxy puerarin (GG-13), daidzein-8-C-apiosyl(1→6)glucoside (GG-14), 6''-O-β-D-xylosyl puerarin (GG-15), 3'-hydroxy-daidzein-8-C-apiosyl(1→6)glucoside (GG-16), 3'-hydroxy-6''-O-β-D-xylosyl puerarin (GG-17), 3'-methoxy-6''-O-β-D-glucosyl puerarin (GG-18), 3'-hydroxy-formononetin-8-C-apiosyl-(1→6)glucoside (GG-19), Puerarin-4'-O-glucoside (GG-20), 3'-hydroxy-4'-O-glucosyl puerarin (GG-21), 3'-methoxy-4'-O-glucosyl puerarin (GG-22), mirificin-4'-O-β-D-glucoside (GG-23), sophoracoumestan A (GG-24), allantoin (GG-25), puerarol (GG-26), β-sitosterol (GG-27), lupeol (GG-28), lupeone (GG-29), (6R, 7E, 9R)-3-oxo-α-ionol-9-O-β-D-glucopyranoside (GG-30), sucrose (GG-31), (-)-puerol B 2-O-glucopyranoside (GG-32). Four of them, GG-17, GG-18, GG-19 and GG-22, are new compounds. Bseides, GG-7, GG-28, GG-30 and GG-31 are separated from this genus for first time

and GG-24, GG-29 are separated from this species for first time.

**Key words:** *Pueraria lobata*; Isoflavonoids; Chromatographic separation; Puerarin