Picrorhiza kurrooa Root and Rhizome – Identification

Thin-Layer Chromatography

Typical HPTLC Chromatogram

These chromatograms are supplied for information only

**Track assignment:** 1-3) Picroside I (0.5 mg/mL); 4-6) Picroside II (0.5 mg/mL); 7-9) Picrorhiza kurrooa Root and Rhizome, commercial samples; 10-12) Picrorhiza kurrooa Root and Rhizome extracts, commercial samples

**Sample solutions:** according to the monograph

**Standard solutions:** in methanol

**Plate:** HPTLC, Silica gel 60 F 254, 5 µm

**Application volume:** 10 µL, as 10-mm bands

**Relative Humidity:** about 33%

**Developing solvent system:** ethyl acetate, methanol, and water (82:10:0.8)

**Developing distance:** 6 cm

**Derivatization reagent:** anisaldehyde-sulfuric acid reagent

**Detection:** derivatize, heat at 100°C for 3 min, and examine under visible light.
Thin-Layer Chromatography (Other method)

These chromatograms are supplied for information only

**Track assignment:** 1) Picroside I and Picroside II (1.0 mg/mL); 2-8) *Picrorhiza kurrooa* Root and Rhizome, commercial samples; 9) *Picrorhiza kurrooa* Root and Rhizome extracts, commercial samples; 10-12) *Picrorhiza* root

**Sample solutions:** according to the monograph

**Standard solutions:** in methanol

**Plate:** HPTLC, Silica gel 60 F_{254}, 5 µm

**Application volume:** 2 µL, as 8-mm bands

**Relative Humidity:** about 33%

**Developing solvent system:** 2-butanol, 2-propanol, and formic acid (90:10:5)

**Developing distance:** 7 cm

**Derivatization reagent:** anisaldehyde-sulfuric acid reagent

**Detection:** derivatize, heat at 100°C for 3 min, and examine under visible light.
Representative chromatogram of Content of Iridoid Glycosides in *Picrorhiza kurrooa* Root and Rhizome

*This chromatogram is supplied for information only*

**Solution preparation:** according to the monograph  
**Mode:** HPLC  
**Detector:** UV, 263 nm  
**Column:** 4.6-mm × 25-cm; 5-µm packing L1 (Similar to Luna 5-µ C-18 (2) 100Å)  
**Column temperature:** 25°±1  
**Flow rate:** 1.5 mL/min  
**Injection volume:** 20 µL  
**Solution A:** dissolve 0.136 g of anhydrous potassium dihydrogen orthophosphate (KH₂PO₄) in 900 mL of water, add 0.5 mL of orthophosphoric acid. Dilute with water to 1000 mL.  
**Solution B:** acetonitrile  
**Mobile phase:** see *Table 1*
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<th>Time (min)</th>
<th>Solution A (%)</th>
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