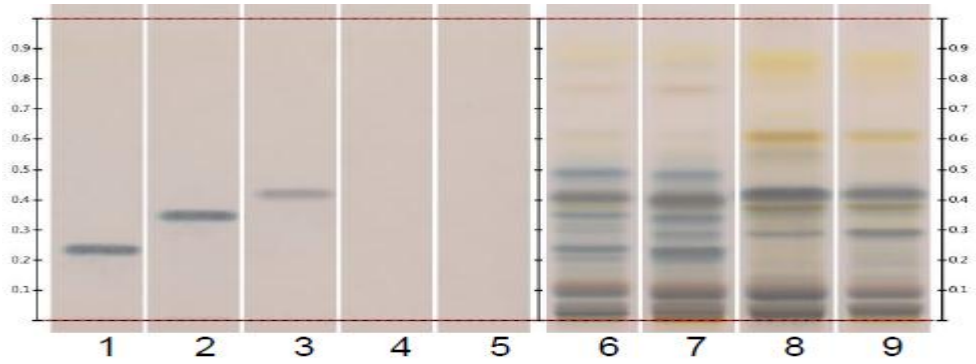
Rhodiola crenulata Root and Rhizome — Identification

Thin-Layer Chromatography



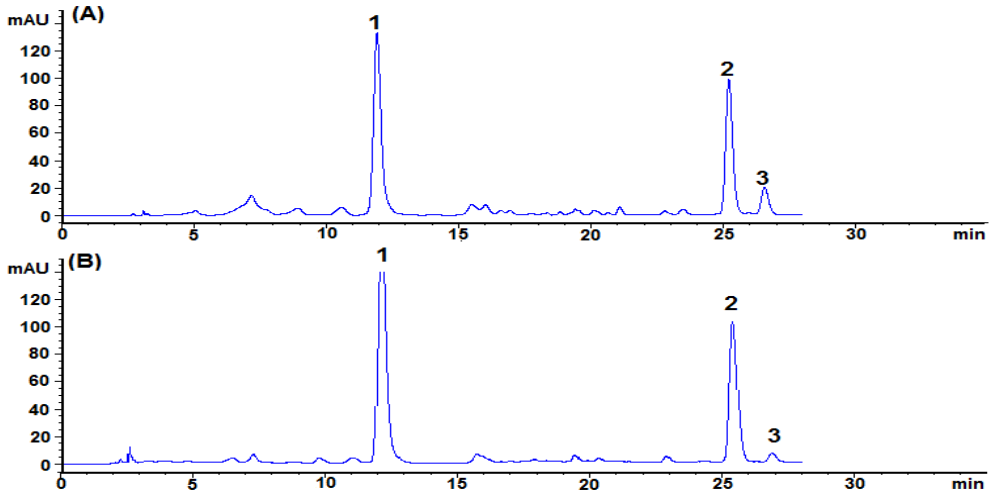
Typical HPTLC Chromatograms

These chromatograms are supplied for information only

Track assignment: **1** Rosavin; **2** Rosarin; **3** Salidroside; **4** Tyrosol; **5** Gallic acid; **6-7** *Rhodiola rosea* Root and Rhizome; **8-9** *Rhodiola crenulata* Root and Rhizome

Sample solutions:	according to the monograph
Standard solutions:	in methanol
Plate:	HPTLC, Silica gel
Application volume:	5 µL, as 8-mm bands
Relative Humidity:	about 33%
Developing solvent system:	Ethyl acetate, methanol, water and formic acid (77:13:10:2)
Derivatization reagent:	Dissolve 1 g of diphenylamine in 40 mL of acetonee; add 1 mL of aniline, and mix. Carefully add 7.5 mL of phosphoric acid, and mix
Detection:	Treat with *Derivatization reagent*, heat at 120° for 5 min, and examine under visible light

HPLC (Phenylethanoids)



(A) *Rhodiola crenulata* Root and Rhizome; (B) *Rhodiola crenulata* Root and Rhizome Dry Extract

*1) Gallic acid; 2) Salidroside; 3) Tyrosol

Representative chromatogram of *Content of Phenylethanoids* in *Rhodiola crenulata* Root and Rhizome

These chromatograms are supplied for information only

Detector: UV, 275 nm

Column: 4.6-mm × 25-cm; 5-µm packing L1 (similar to Merck Purospher STAR RP-18)

Column temperature: 25°

Flow rate: 1.0 mL/min

Injection volume: 10 µL

Solution A: 0.02% phosphoric acid in water.

Solution B: methanol and acetonitrile (9:1)

Mobile phase: see *Table 1*

Table 1

Time (min)	Solution A (%)	Solution B (%)
0	95	5
10	95	5
15	83	17
28	83	17