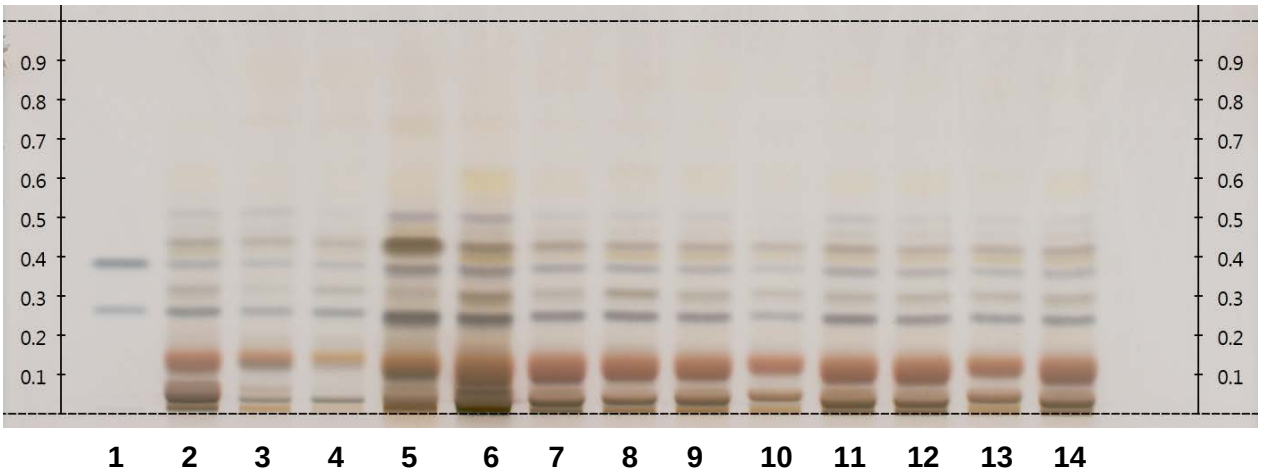
Rhodiola rosea Root and Rhizome — Identification

Thin-Layer Chromatography



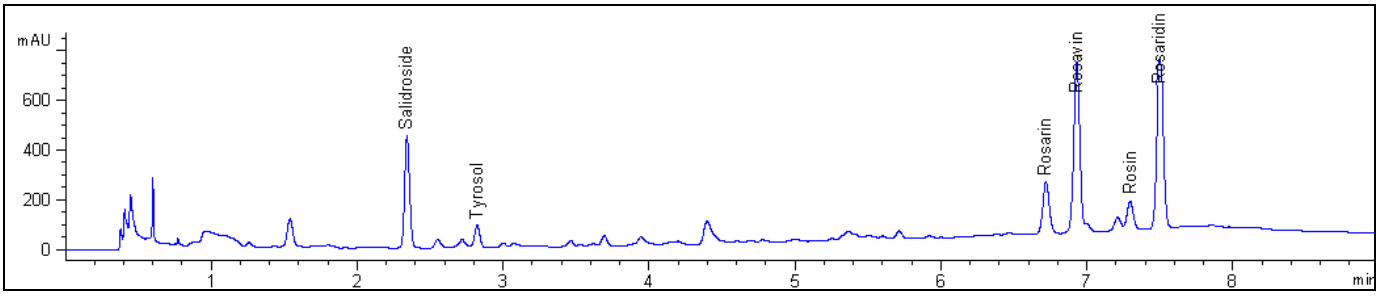
Typical HPTLC Chromatograms

These chromatograms are supplied for information only

Track assignment: 1) USP Rosavin RS and rosarin, with increasing R_F, (1.0 mg/mL); 2) USP *Rhodiola rosea* Powdered Extract RS (50 mg/mL); 3-14) *Rhodiola rosea* Root and Rhizome, commercial samples

Sample solutions:	according to the monograph
Standard solutions:	in methanol
Plate:	HPTLC, Si 60
Saturation time:	20 minutes
Application volume:	3 µL of standard solutions, 5 µL sample solutions; as 8-mm bands
Relative Humidity:	about 33%
Temperature:	25°
Developing solvent system:	ethyl acetate, methanol, water and formic acid (77:13:10:2)
Developing distance:	6 cm
Derivatization reagent:	dissolve 1g of diphenylamine in acetone, add 1 mL of aniline, and mix. Carefully add 7.5 mL of phosphoric acid, and mix.
Detection:	derivatize, heat at 120º for 5 min, and examine under visible light

HPLC (Phenylpropenoid Glycosides and Salidroside)



Representative chromatogram of *Content of Phenylpropenoid Glycosides and Salidroside* in *Rhodiola rosea* Root and Rhizome

This chromatogram is supplied for information only

Detector:	UV, 205 nm
Column:	3.0-mm × 10-cm; 2.5-µm packing L1 (similar to Luna C18-HST)
Column temperature:	40°±1
Flow rate:	1.0 mL/min
Injection volume:	1 µL
Solution A:	water
Solution B:	acetonitrile
Mobile phase:	see *Table 1*

Table 1

Time (min)	Solution A (%)	Solution B (%)
0	94	6
6	83	17
7	80.3	19.7
9	80.3	19.7
10	0	100
12	94	6
17	94	6