

Panax Notoginseng

田七 (Tiánqī), Tienchi Ginseng, San Qi (三七) or Sanchi

Panax notoginseng belong to the genus *Panax*, and it is most commonly referred to as notoginseng in English. In Chinese it is called 田七 (tiánqī), tienchi ginseng, san qi (三七) or sanchi, three-seven root, and mountain paint. Notoginseng belongs to the same scientific genus as Asian ginseng. In Latin, the word *panax* means "cure-all", and the family of ginseng plants is one of the most well-known herbs. Notoginseng grows naturally in China and Japan.

We have analysed the same alcohol extracted sample with both a traditional particle packed column (page 10) and a monolithic Chromolith® HighResolution column (page 11). Both columns were re-equilibrated after each analysis with five column volumes each to provide good reproducibility. Despite the fact that latter column is only 100 mm and the particle packed column was 250 mm long, better resolution of the four target molecules could be attained with the Chromolith® column.

The total analysis time is 30 min shorter with the Chromolith® column.

Panax Notoginseng

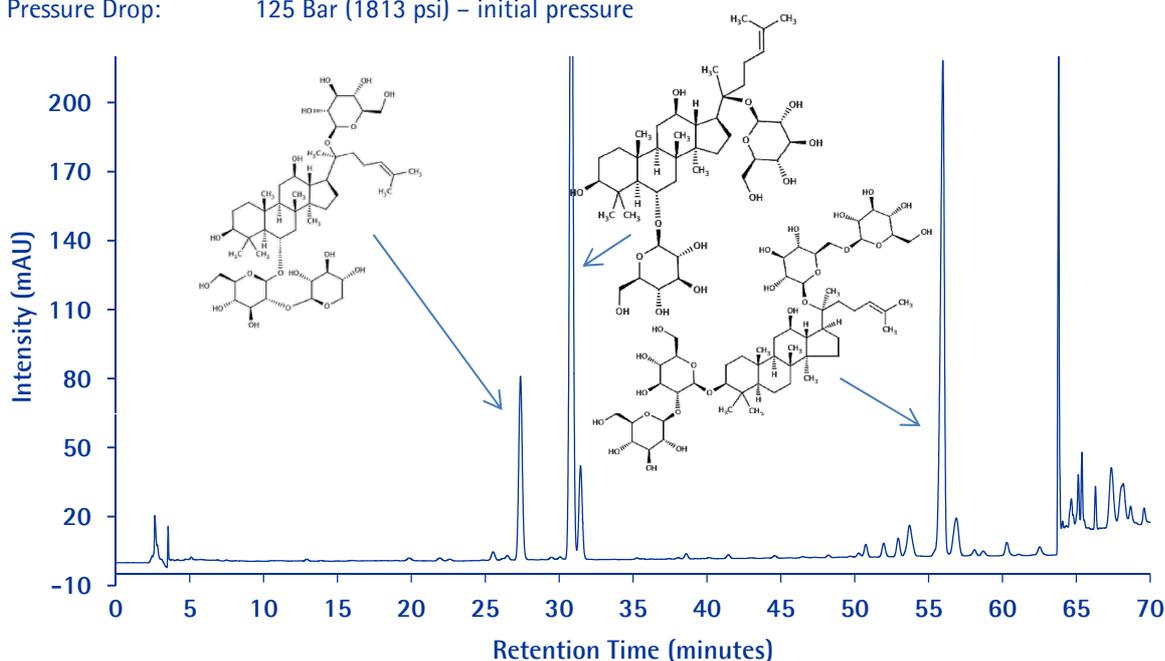
Particle packed column RP-18 endcapped

Chromatographic Conditions

Column: Particle packed column, RP-18 endcapped (5µm), 250x4.6mm
 Injection: 10 µl
 Detection: UV 203 nm
 Flow Rate: 1.5 mL/min
 Mobile Phase : A: Milli-Q water
 B: Acetonitrile
 Gradient: See table.

Time (min)	% A	% B
0-12	19	81
60	36	64
70	70	30
70.1	19	81
90	19	81

Temperature: 25°C
 Diluent Mobile phase
 Sample: The extract of panax notoginseng dissolved in methanol.
 Pressure Drop: 125 Bar (1813 psi) – initial pressure



Chromatographic Data

No.	Compound	Retention Time (min)	Theoretical Plates*	Asymmetry
1	R1	27.4	59396	1.1
2	Rg1	30.8	80584	1.0
3	Re	31.4	85373	1.0
4	Rb1	56.0	214486	0.6

Panax Notoginseng

Chromolith® HighResolution RP-18 endcapped

Chromatographic Conditions

Column: Chromolith® HighResolution RP-18 endcapped, 100x4.6mm

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Injection: 10 µl

Detection: UV 203 nm

Flow Rate: 1.5 mL/min

Mobile Phase : A: Milli-Q water

B: Acetonitrile

Gradient: See table

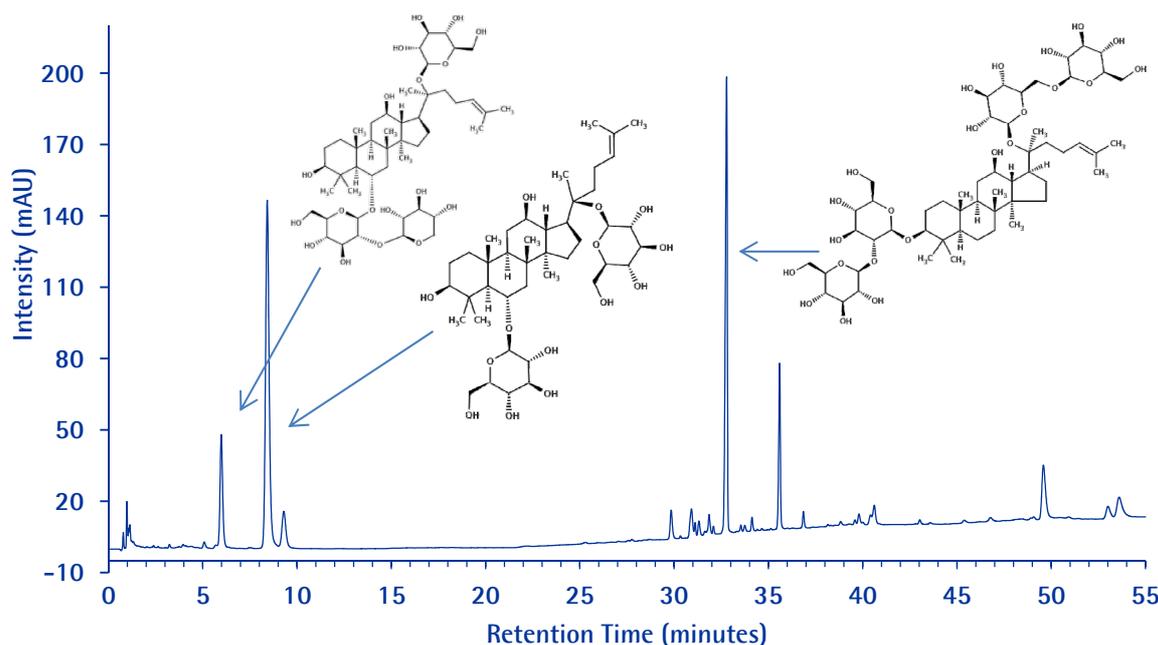
Time (min)	% A	% B
0-20	19	81
45	45	55
55	55	45
55.1	19	81
60	19	81

Temperature: 25°C

Diluent Mobile phase

Sample: The extract of panax notoginseng dissolved in methanol.

Pressure Drop: 77 Bar (1165 psi) – initial pressure



Chromatographic Data

No.	Compound	Retention Time (min)	Theoretical Plates*	Asymmetry
1	R1	6.0	9105	1.1
2	Rg1	8.5	9853	1.2
3	Re	9.3	9058	1.2
4	Rb1	32.8	425154	0.5