

# Niuhuang Qianjin Powder (*Niuhuang Qianjin San*) – 牛黄千金散

## Sample source

Commercially available Niuhuang Qianjin Powder

## Chemical reference substances

Berberine hydrochloride (National Institute for the Control of Pharmaceutical and Biological Products, Batch number 110713-200208)

## Preparation of test solution

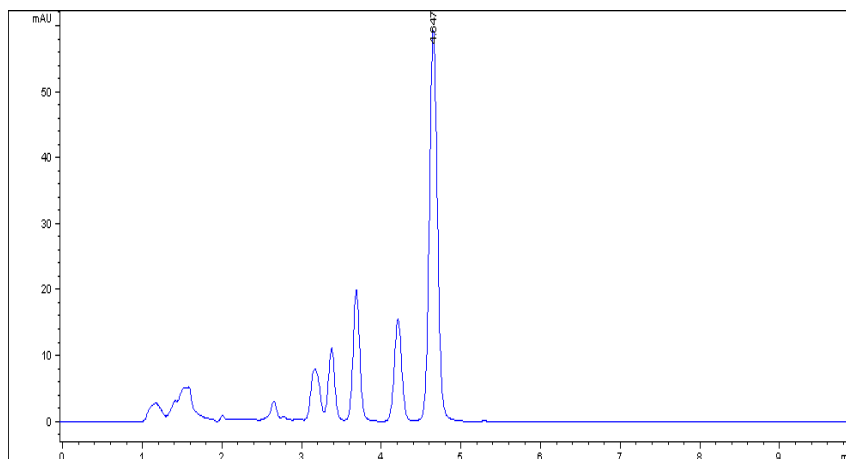
Accurately weigh about 0.5 g of the powder in a stoppered conical flask, mix well, accurately add 50 mL of a mixture of hydrochloric acid and methanol (1:100), weigh. Heat under reflux on a water bath at 60 °C for 15 minutes. Treat ultrasonically for 30 minutes, allow to cool, weigh again, and replenish the lost weight with a mixture of hydrochloric acid and methanol (1:100). Shake well, filter. Accurately transfer 2 mL of the filtrate to a 10 mL volumetric flask, dilute with methanol to volume, shake well and filter, use the filtrate as the test solution.

## Chromatographic conditions

- Column: ZORBAX XDB C18 4.6×150 mm, 5 µm (993967-902)
- Column temperature: 25 °C
- Mobile phase: acetonitrile-water (containing 0.34% potassium dihydrogen phosphate and 0.17% sodium dodecylsulphonate) (50:50)
- Detector wavelength: 346nm
- Flow rate: 1.0 mL/min
- Injection volume: 5 µL

## Chromatographic system

- Agilent 1200 Series quaternary pump with vacuum degasser
- Agilent 1200 Series high-performance autosampler
- Agilent 1200 Series thermostated column compartment
- Agilent 1200 Series diode-array detector
- System control through Agilent ChemStation revision B.01.01



Components	k'	Ret Time (min)	Height (mAU)	Area (mAU*s)	n	USP T <sub>r</sub>
Berberine	2.098	4.647	59.19	412.3	10783	1.05