

Lightyellow Sophora Root (*Radix sophorae Flavescentis*) – 苦参

Sample source

Commercially available Lightyellow Sophora Root

Chemical reference substances

1. Matrine, 2. Oxymatrine (National Institute for the Control of Pharmaceutical and Biological Products, Batch number 1.110805-200306, 2.110780-200306)

Preparation of test solution

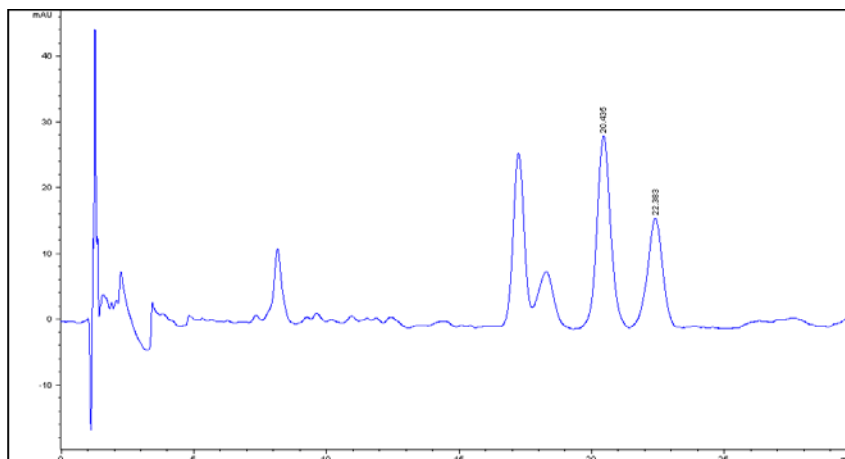
Accurately weigh 0.3 g of the powder in a stoppered conical flask and accurately add 0.5 mL of strong ammonia TS and 20 mL of chloroform, stopper tightly and weigh. Treat ultrasonically for 30 minutes, allow to cool and weigh again, replenish the lost solvent with chloroform and mix well, filter. Accurately measure 5 mL of the filtrate and apply to a small column (1 cm in inner diameter) packed with neutral alumina (100-200 mesh, 5 g) and elute with 20 mL quantities of chloroform, a mixture of chloroform and methanol (7:3) successively, collect the eluents and evaporate to dryness. Dissolve the residue with a small quantity of ethanol and transfer to a 10 mL volumetric flask and dilute with ethanol to volume, and mix well.

Chromatographic conditions

- Column: ZORBAX SB C18 4.6×150 mm, 5 µm (883975-902)
- Column temperature: 20 °C
- Mobile phase: acetonitrile-methanol-0.05 % phosphoric acid (1.5 % sodium dodecylsulphate) (30:10:60)
- Detector wavelength: 220 nm
- 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 _r
Matrine	13.922	22.383	16.56	653.6	7710	0.94
Oxymatrine	12.623	20.435	29.20	1043.7	8133	1.07