

# Maren Pills (*Maren Wan*) – 麻仁丸

## Sample source

Commercially available Maren Pills

## Chemical reference substances

1. Emodin, 2. Chrysophanol  
(National Institute for the Control of Pharmaceutical and Biological Products, Batch number: 1. 110756-200210, 2. 110796-200309)

## Preparation of test solution

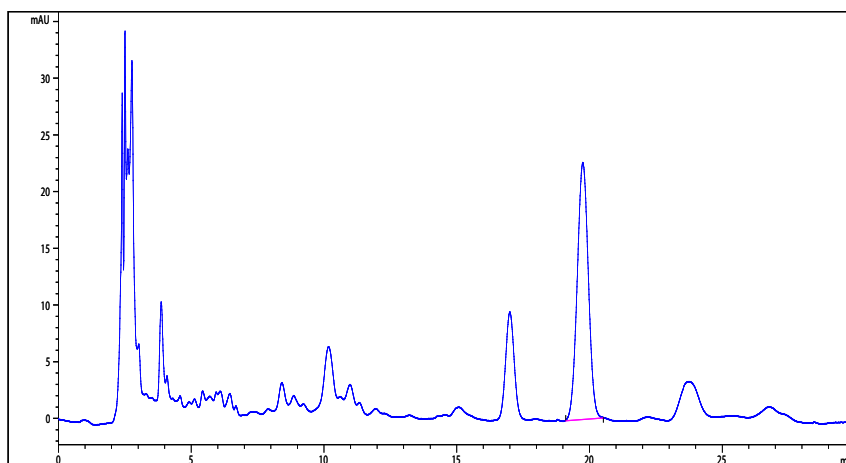
Grind a quantity of the pills to a fine powder. Accurately weigh 0.8 g of the powder, transfer to a Soxhlet extractor, add a quantity of ethanol, and heat under reflux until the extract is colorless. Evaporate the extract to dryness on a water bath. Add 15 mL of a mixture of 30 % solution of methanol and hydrochloric acid (10:1), heat on a water bath for 50 minutes, and cool immediately. Extract the solution with five 15 mL quantities of chloroform by shaking, combine the chloroform solution, and evaporate to dryness. Dissolve the residue with a mixture of dehydrated ethanol and ethyl acetate (2:1), transfer to a 25 mL volumetric flask, dilute to volume, mix well, filter and use the filtrate as the test solution.

## Chromatographic conditions

- Column: Agilent TC-C18, 4.6× 250 mm, 5 µm (518925-902)
- Column temperature: 27 °C
- Mobile phase: methanol-0.1% phosphoric acid (80:20)
- Detector wavelength: 254 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 <sub>r</sub>
Emodin	11.393	17.20	231.7	17306		1.0
Chrysophanol	12.704	54.86	778.8	19169	3.57	1.07