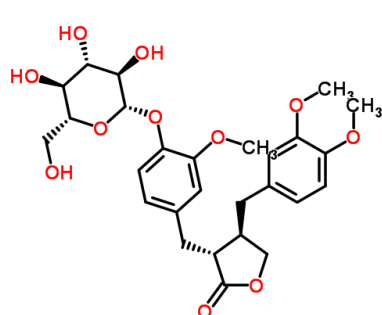


Certificate of Analysis

Product Name	Arctiin/牛蒡子苷	
Catalog Number	8002	
Lot Number	80021	

Chemical Name	Arctiin
Chemical Formula	C ₂₇ H ₃₄ O ₁₁
Chemical Family	Lignans
Molecular Weight	534.55
CAS Number	20362-31-6
Appearance (Color)	White
Appearance (Form)	Powder

Analytical Test

Test	Result
Identity by LC/MS Analysis	Consistent with structure
Purity by HPLC/PDA Analysis	≥ 98.0%

Storage Conditions:

Storage:	Refer to label
Before use:	Keep container tightly closed

TLCM certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated criteria. Warranty does not apply after opening.

Date of Certificate: 23/01/2013

Product Analysis Report

Analytical Test

Test	Results
Identity by LC/MS Analysis	Consistent with structure
Purity by HPLC/PDA Analysis	≥ 98.0%

Spectral and Physical Data

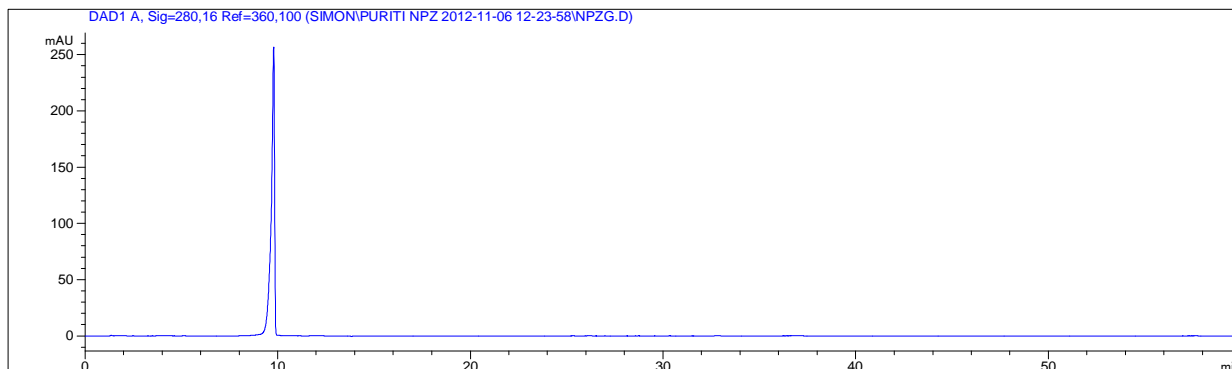
HPLC

HPLC system : Agilent Technologies 1200 Series
Column : ACE, C18, 4.6 x 250 mm, 5 µm or equivalent
Injection volume : 10 µl
Detector : DAD
Detector wavelength : 280 nm
Flow rate : 0.8 mL/min
Mobile phase :

Time (min)	% H ₂ O(0.1% H ₃ PO ₄)	% ACN	Flow rate (mL/min)
0→20	75→30	25→70	0.8
20→60	30	70	0.8

Date File Name : A5-C:\CHEM32\1\DATA\SIMON\PURITI NPZ
Operator : DUAN Ran
Sample Lot Number : 80021
Method File : NIUPANGZI 25 70
Acquired : 06/11/2012

I. HPLC chromatogram



Product	RT (min)	Area (mAu*s)	Relative Area %
Arctiin	9.795	3039.8	100.00