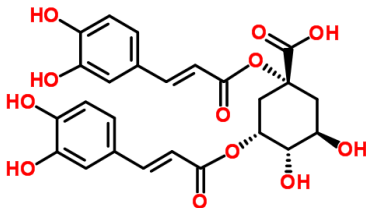


Certificate of Analysis

Product Name	1,5-Dicaffeoylquinic acid /1,5-二咖啡酰奎寧酸	
Catalog Number	9039	
Lot Number	90394	

Chemical Name	1,5-Dicaffeoylquinic acid
Chemical Formula	C ₂₅ H ₂₄ O ₁₂
Chemical Family	Phenol
Molecular Weight	516.45
CAS Number	30964-13-7
Appearance (Color)	White
Appearance (Form)	Powder

Analytical Test

Test	Result
Identity by LC/MS Analysis	Consistent with structure
Purity by HPLC/DAD 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: 12/05/2014

Product Analysis Report

Analytical Test

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

Spectral and Physical Data

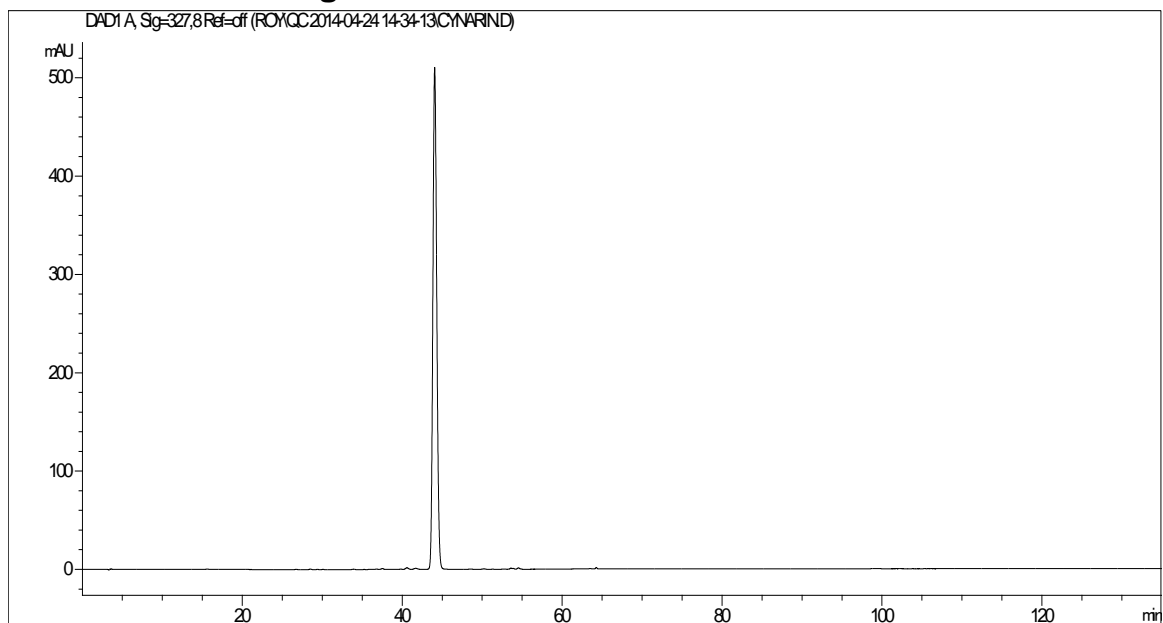
HPLC

HPLC system : Agilent Technologies 1200 Series
Column : Inertsil ODS-4 column, 4.6 x 250 mm, 5 μm
Injection volume : 10 μl
Detector : DAD
Detector wavelength : 327 nm
Flow rate : 1.0 mL/min
Mobile phase :

Time (min)	% 0.1% H ₃ PO ₄	% MeOH	Flow rate (mL/min)
0 → 15	90 → 80	10 → 20	1.0
15 → 30	80 → 60	20 → 40	1.0
30 → 45	60	40	1.0
45 → 60	60 → 20	40 → 80	1.0

Date File Name : A2-C:\CHEM32\1\DATA\ROY\QC 2014-04-24
14-34-13\CYNARIN.D
Operator : DUAN Ran
Sample Lot Number : 90394
Method File : CYNARIN.M
Acquired : 24/04/2014

I. HPLC chromatogram



Product	RT (min)	Area (mAu*s)	Relative Area %
11,5-Dicaffeoylquinic acid	44.064	17138	99.49