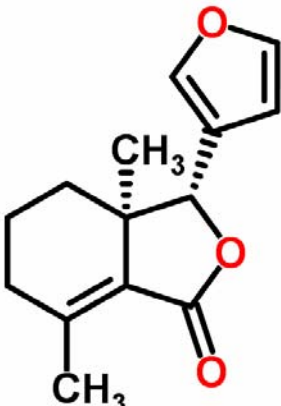


Certificate of Analysis

| | | |
|----------------|---------------------|------------------------------------------------------------------------------------|
| Product Name | Fraxinellone/ 栲酮 |  |
| Catalog Number | 11044 | |
| Lot Number | 110443 | |

| | |
|--------------------|------------------------------------------------|
| Chemical Name | Fraxinellone |
| Chemical Formula | C ₁₄ H ₁₆ O ₃ |
| Chemical Family | Terpenoid |
| Molecular Weight | 232.27 |
| CAS Number | 28808-62-0 |
| 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: 29/05/2013

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

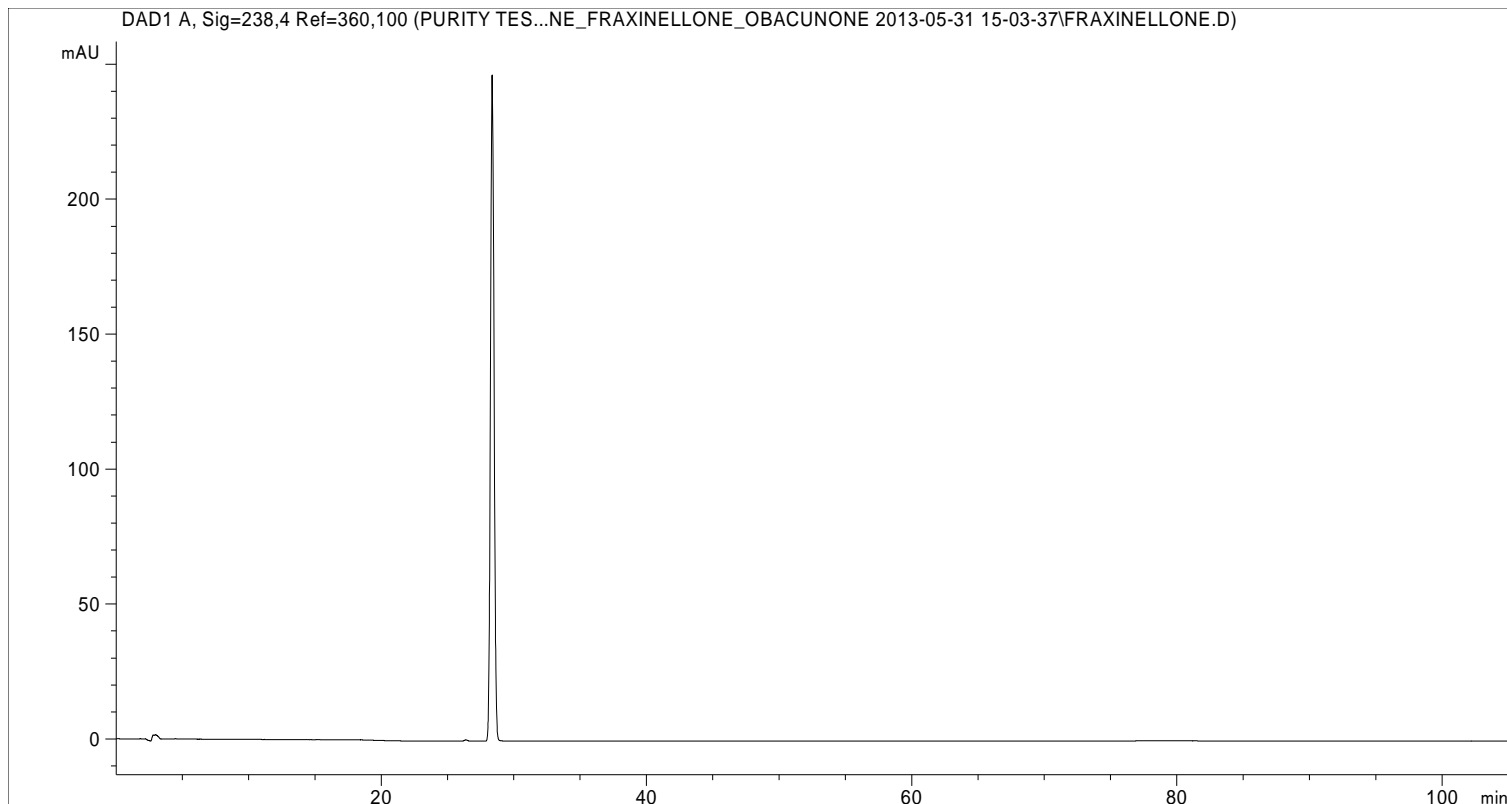
HPLC

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 : 238 nm
Flow rate : 1.0 mL/min
Mobile phase :

| Time (min) | % 0.1% Phosphoric acid | % ACN | Flow rate (mL/min) |
|------------|------------------------|---------|--------------------|
| 0 → 15 | 60 → 57 | 40 → 43 | 1.0 |
| 15 → 20 | 57 → 50 | 43 → 50 | 1.0 |
| 20 → 35 | 50 → 46 | 50 → 54 | 1.0 |

Date File Name : A1-D:\Chem32\data\purity test
Operator : DUAN Ran
Sample Lot Number : 110443
Method File : D:\Chem32\1\method\FRAXINELLONE
Acquired : 2013-05-29

I. HPLC chromatogram



| Product | RT (min) | Area (mAu*s) | Relative Area % |
|--------------|----------|--------------|-----------------|
| Fraxinellone | 28.37 | 2689.8 | 98.65 |