



成都普瑞法科技开发有限公司  
Chengdu Biopurify Phytochemicals Ltd.

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## Certificate of Analysis

**Product Name:** Liquidambaric acid

**Other Name:**

**Catalogue No.:** BP0871

**Batch No.:** 13053008

**Report Date:** 2013-05-30

**CAS Number:** 4481-62-3

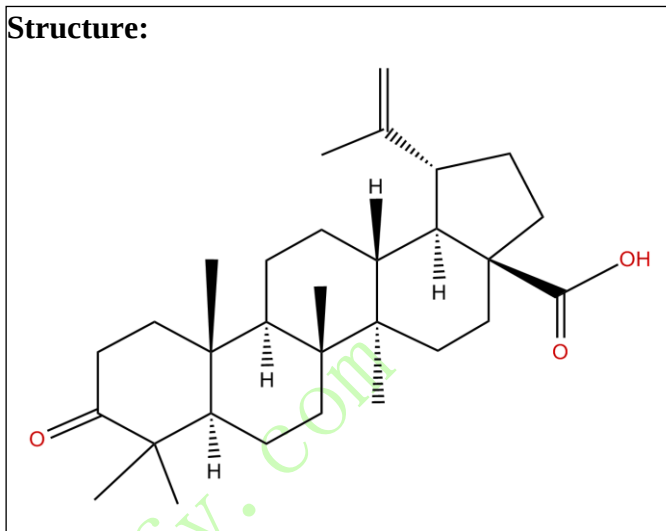
**Mol. Formula:** C<sub>30</sub>H<sub>46</sub>O<sub>3</sub>

**Mol. Weight:** 454.695

**Identification Method:** Mass, NMR

**Analysis Method of Purity:** HPLC-ELSD

**Structure:**



### Analytical result:

| Test                | Specification | Results      |
|---------------------|---------------|--------------|
| Appearance          | White powder  | White powder |
| Loss on drying      | <3%           | 1.0 %        |
| Purity (HPLC-ELSD)* | ≥98.0%        | 99.69%       |

\* Please find HPLC chromatography attached.

**Package:** Brown vial or HDPE Plastic Bottle

**Storage:** Cool and Dry place, protected from light, keep package airproofed when not in use.

**Expiration:** two years (2015-05-29) under conditions list above.

QC: *Meng Pan*

Date: 2013-05-30

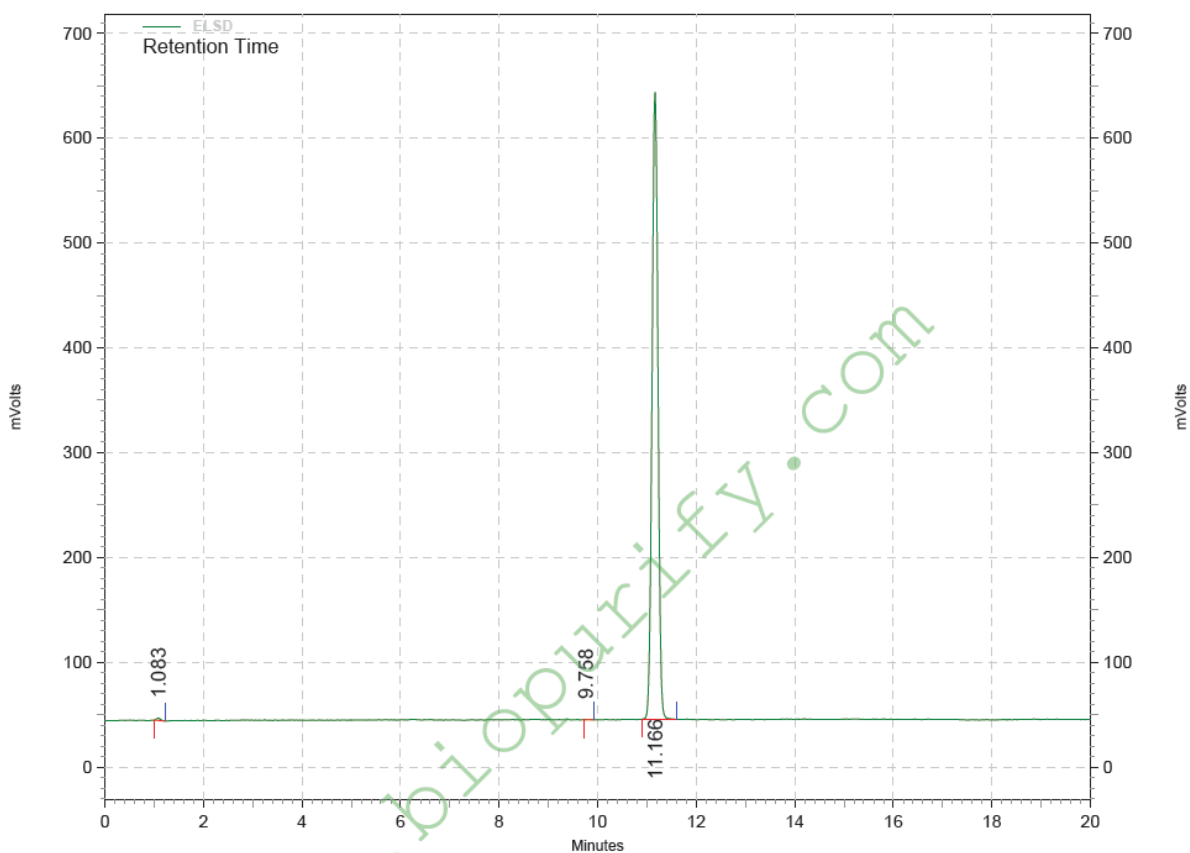
QA: *Lianglei Zhang*

Date: 2013-05-30



Chengdu Biopurify Phytochemicals Ltd  
HPLC Report

Instrument: Agilent 1100 DAD-ELSD  
Data File: F:\hplc\data\Liquidambaric acid\13053008.dat  
Method: F:\hplc\method\Liquidambaric acid.met  
Acquired: 30/05/2013 15:45:36  
Printed: 30/05/2013 16:32:46  
Injection Vial: 5 Injection Volume: 10



ELSD  
Results

| Pk #   | Name | Retention Time | Area    | Area % | Theoretical plates (USP) | Resolution (USP) |
|--------|------|----------------|---------|--------|--------------------------|------------------|
| 1      |      | 1.083          | 12123   | 0.24   | 830                      | 0.00000          |
| 2      |      | 9.758          | 3385    | 0.07   | 0                        | 115.36733        |
| 3      |      | 11.166         | 4980202 | 99.69  | 41669                    | 12.87243         |
| Totals |      |                | 4995710 | 100.00 |                          |                  |