Certificate of Analysis

| Product Name | Brucine /馬錢子鹼 | ÇH₃ ∕_N |
|----------------|---------------|------------------|
| Catalog Number | 1006 | H ₃ C |
| Lot Number | 10061 | |

Chemical Name
Chemical Formula
Chemical Family
Chemical Family
Alkaloids
Molecular Weight
CAS Number
Appearance (Color)
Appearance (Form)
Brucine
324,46
334,46
357-57-3
White

Analytical Test

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

Storage Conditions:

TLCM

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: 22/08/2013

Room 6145, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong

www.hktlcm.com Email:stds@ust.hk Tel: 2358-7338 Fax: 2358-2551

Testing Laboratory

for Chinese Medicine **TLCM**

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

 $\begin{array}{lll} \text{Injection volume} & : & 10 \; \mu\text{I} \\ \text{Detector} & : & \text{DAD} \end{array}$

Detector wavelength: 260 nm

Flow rate : 1.0 mL/min

Mobile phase :

| Time (min) | % 0.2% Triethylamine + 0.2% Acetic acid | % ACN | Flow rate (mL/min) |
|--------------------|--------------------------------------------------|-------|-----------------------|
| 0 → 150 | 90 | 10 | 1.0 |

Date File Name : A1-C:\CHEM32\1\DATA\ROY\DEF_LC 2013-08-20

10-56-16\BRUCINE.D

Operator : DUAN Ran

Sample Lot Number : 10061

Method File:BRUCINE.MAcquired:20/08/2013

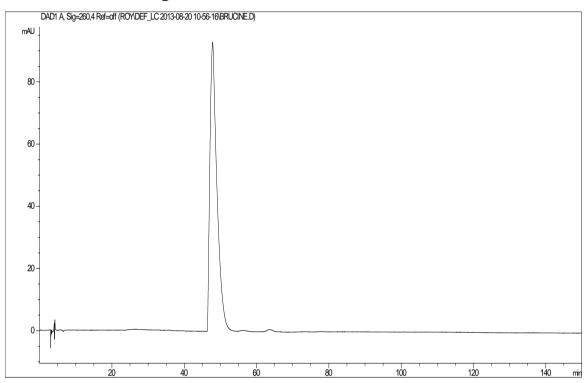
TLCM Room 6145, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong

www.hktlcm.com Email:stds@ust.hk Tel: 2358-7338 Fax: 2358-2551

Testing Laboratory

for Chinese Medicine **TLCM**

I. HPLC chromatogram



| Product | RT (min) | Area (mAu*s) | Relative Area % |
|---------|----------|--------------|-----------------|
| Brucine | 47.849 | 12023.1 | 100.000 |

TLCM Room 6145, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong

Fax: 2358-2551