

# CERTIFICATE OF ANALYSIS

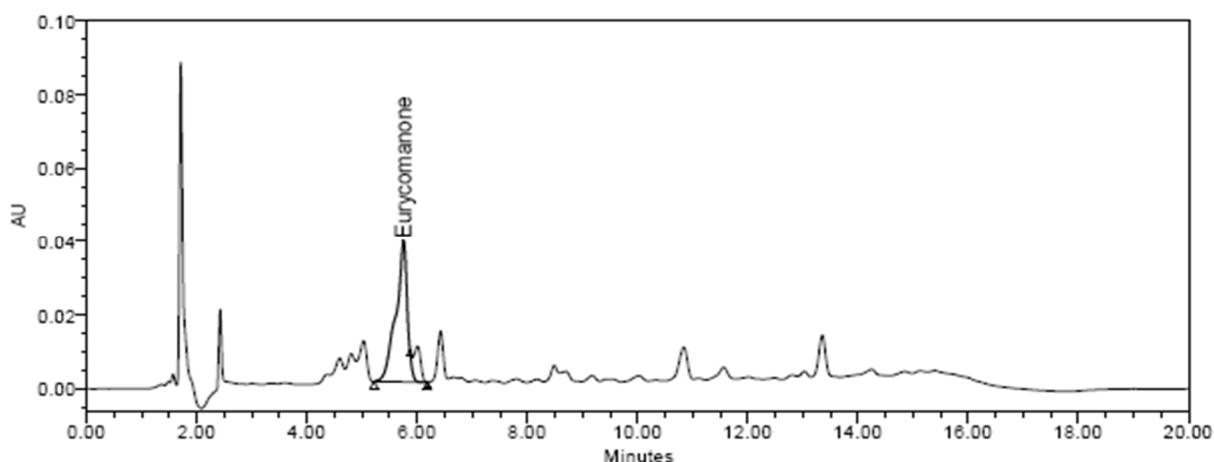


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**Report Issued To:** Yaju  
Frans Halsstraat 62  
Utrecht 3583BS  
Netherlands

**Sample Name:** Tongkat Ali Root Extract  
**Description:** Powdered extract; Fine powder  
**Lot #:** TKA230415  
**AL #:** 23150VYM\_2  
**Analysis ID:** 202256  
**Received:** 05/30/23

## Determination of Eurycomanone Content by HPLC



Ret. Time (min)	Compound Name	Prep 1 (%)	Prep 2 (%)	Average (%)	Specification	Result
5.7	Eurycomanone	5.097	5.133	5.115	5%	Pass

### Chromatographic Conditions:

Method: ATM-815-0222  
Column: AP345 Luna 5 µm C18(2) 100 A (150 x 4.6 mm)  
Temperature: 40°C  
Flow Rate: 1 mL/min  
Injection Volume: 20 µL  
UV Detection: 254 nm  
Mobile Phase: 0.1% Formic Acid in Water  
Acetonitrile  
HPLC Instrument: Alliance\_4

### Sample Preparation:

Weighed 20 mg sample into a 50 mL volumetric flask and added 40 mL of methanol. Vortexed for 30 seconds and sonicated for 15 minutes at room temperature. Let cool, filled to volume with methanol, and mixed by inversion. Filtered through 0.45 µm PTFE syringe filter.

### Report Summary:

Conclusion: This "Tongkat Ali Root Extract" test sample contains an average of 5% eurycomanone on the as-is basis.  
OOS Reference: N/A  
WI Reference: 15923 Eurycomanone

Analysis Date : 06/09/23

Analyzed By: JM Lopez

Authorized By: Celine Decasiano,  
Analytical Chemistry Supervisor