

# CERTIFICATE OF ANALYSIS

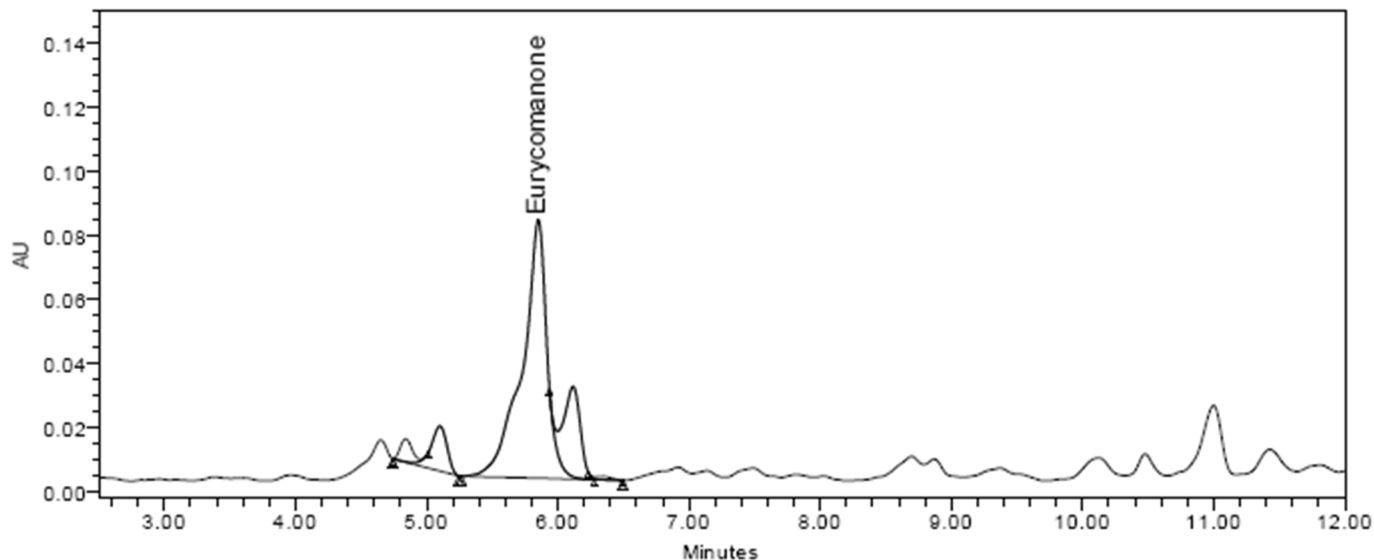


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**Report Issued To:** Yaju  
Frans Halsstraat 62  
Utrecht 3583BS  
Netherlands

**Sample Name:** Tongkat Ali Root Extract (Eurycoma Longifolia Root)  
**Description:** Powdered extract; Fine powder  
**Lot #:** TKA220913  
**AL #:** 22353HEN\_1  
**Analysis ID:** 191935  
**Received:** 12/19/22

## Determination of Eurycomanone Content by HPLC



Ret. Time (min)	Compound Name	Prep 1 (%)	Prep 2 (%)	Average (%)	Specification	Result
5.8	Eurycomanone	4.582	4.583	4.582	5%	Pass

### Chromatographic Conditions:

Method: ATM-815-0222  
Column: AP286 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\_3

### Sample Preparation:

Weighed 25 mg sample into 25 mL volumetric flask and added 20 mL of methanol. Vortexed for 30 seconds and sonicated for 15 minutes at room temperature. Let cool, filled to volume, and mixed by inversion. Filtered through 0.45 µm PTFE syringe filter.

### Report Summary:

Conclusion: This "Tongkat Ali Root Extract (Eurycoma Longifolia Root)" test sample contains an average of 5% Eurycomanone on the as is basis.  
OOS Reference: N/A  
WI Reference: 01023 Eurycomanone

**Analysis Date :** 01/11/23      **Analyzed By:** JM Lopez

**Authorized By:** Celine Decasiano,  
Analytical Chemistry Supervisor