

# CERTIFICATE OF ANALYSIS

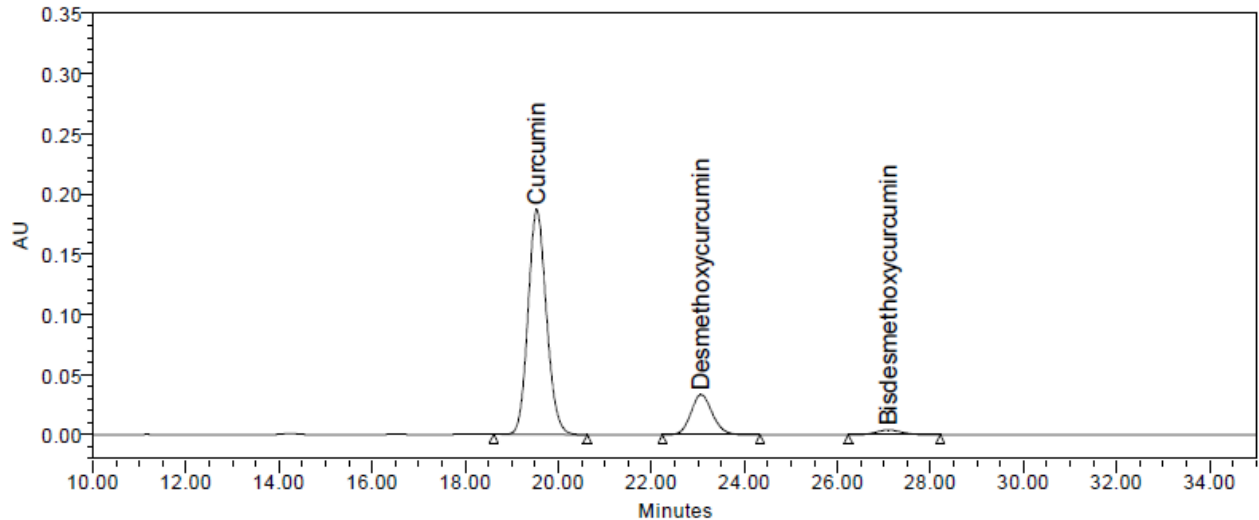


12661 HOOVER STREET GARDEN GROVE, CA 92841 | P. 714-754-4372 | F. 714-668-9972 | WWW.ALKEMIST.COM

**Report Issued To:** Dietary Supplement Company  
1234 Main Street  
Los Angeles, CA 90000  
USA

**Sample Name:** Turmeric Powdered Extract  
**Description:** Powdered extract; Fine orange powder  
**Lot #:** 1234567  
**AL #:** 21145RRR\_1  
**Analysis ID:** 156321  
**Received:** 07/25/21

## Determination of Curcuminoids Content by HPLC



Ret. Time (min)	Compound Name	Prep 1 (% As Is)	Prep 2 (% As Is)	Average (% As Is)	Average (%) Dried Basis	Specification	Result
19.5	Curcumin	20.517	22.281	21.399	21.740	N/A	N/A
23.0	Desmethoxycurcumin	3.755	4.074	3.914	3.977	N/A	N/A
27.0	Bisdesmethoxycurcumin	0.386	0.420	0.403	0.409	N/A	N/A
	Total	24.658	26.774	25.716	26.126	NLT 23.00%	Pass

### Chromatographic Conditions:

Method: USP - Curcuminoids  
Column: AP161 Gemini 5µ C18 110A (250 x 4.6 mm)  
Temperature: 25°C  
Flow Rate: 1 mL/min  
Injection Volume: 20 µL  
UV Detection: 420 nm  
Mobile Phase: Tetrahydrofuran:1 mg/mL Citric Acid in Water (4:6)  
HPLC Instrument: Alliance\_4

Example Report

### Sample Preparation:

Weighed approximately 75 mg into a 50 mL volumetric flask. Added 40 mL of acetone and sonicated for 30 minutes at room temperature. Let cool and filled to volume with acetone. Centrifuged 10 minutes. Diluted 1:10 in THF:1 mg/ mL Citric acid in water (4:6). Filtered through 0.45 µm PTFE filter into HPLC vial for analysis, discarding the first few mL of filtrate.

### Report Summary:

Conclusion: This "Turmeric Powdered Extract" test sample contains an average of 26.03% curcuminoids as curcumin, desmethoxycurcumin, and bisdesmethoxycurcumin on the dried basis.  
OOS Reference: N/A  
Loss on Drying: 1.57%  
Notebook Reference: 12345 Curcuminoids

Analysis Date : 08/01/21 Analyzed By: M Edwards

Authorized By: Celine Deneuve,  
Analytical Chemistry Supervisor