

CERTIFICATE OF ANALYSIS

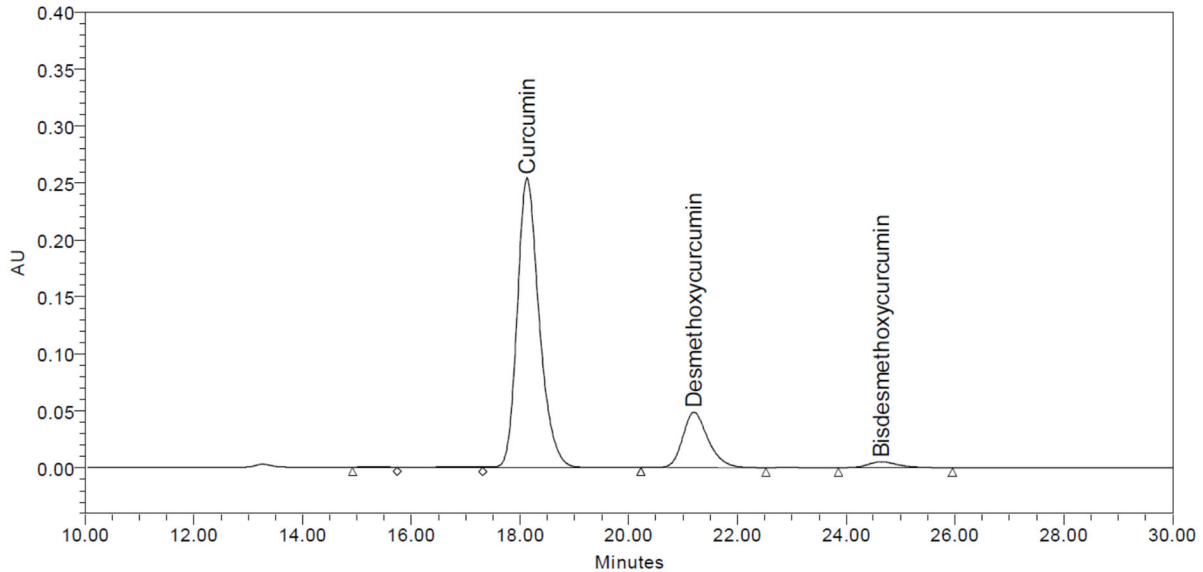


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Report Issued To: Verdure Sciences
17150 Metro Park Court
Noblesville IN 46060
USA

Sample Name: LONGVIDA® [LVB176EFPH]
Description: Powdered extract; Bright orange powder
Lot #: LCL3EG2101A02(PS)
AL #: 21012EBC_1
Analysis ID: 148506
Received: 01/12/21

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
18.0	Curcumin	20.871	20.736	20.804	21.013	N/A	N/A
21.0	Desmethoxycurcumin	3.983	3.962	3.972	4.012	N/A	N/A
24.3	Bisdemethoxycurcumin	0.437	0.437	0.437	0.441	N/A	N/A
Total		25.291	25.135	25.213	25.467	NLT 23.00%	Pass

Chromatographic Conditions:

Method: USP 42 - Curcuminoids
Column: AP165 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_3

Sample Preparation:

Weighed approximately 100 mg into a 50 mL volumetric flask. Added 30 mL of acetone and sonicated for 30 minutes at room temperature. Let cool and filled to volume with acetone. Centrifuged 10 minutes. Filtered through 0.45 µm PTFE filter, discarding the first few mL of filtrate. Diluted 0.5:5 in THF:1 mg/mL Citric acid in water (4:6) into HPLC vial for analysis.

Report Summary:

Conclusion: This "LONGVIDA® [LVB176EFPH]" test sample contains an average of 25.47% total curcuminoids as curcumin, desmethoxycurcumin, and bisdemethoxycurcumin on the dried basis.
OOS Reference: N/A
Loss on Drying: 1.00%
Empower Reference: 01921 Curcuminoids

Analysis Date : 01/21/21 **Analyzed By:** A Pham

Authorized By: Celine Deneuve,
Analytical Chemistry Supervisor