

# CERTIFICATE OF ANALYSIS

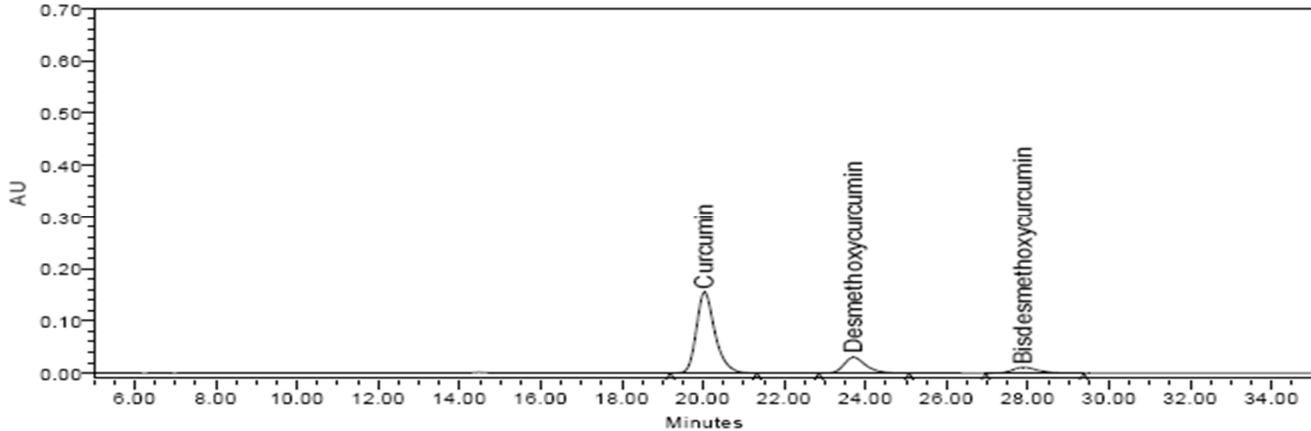


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**Report Issued To:** Harrison Sport Nutrition SL  
C/Lanjarón 6A  
Albolote Granada 18220  
ESP

**Sample Name:** FP 02372 - HSN Essentials - Curcumin Ext+  
Bioperine 2.0 120v  
**Description:** Capsule powder; Capsules [white bottle]  
**Lot #:** L220301A5  
**AL #:** 22132QPO\_2  
**Analysis ID:** 177514  
**Received:** 05/12/22

## Determination of Curcuminoids Content by HPLC



Ret. Time (min)	Compound Name	Prep 1 (%)	Prep 2 (%)	Average (%)	Average (mg/capsule)	Specification	Result
20.0	Curcumin	69.007	70.120	69.563	530.270	N/A	N/A
23.7	Desmethoxycurcumin	13.921	14.193	14.057	107.154	N/A	N/A
27.9	Bisdesmethoxycurcumin	5.262	5.314	5.288	40.308	N/A	N/A
	Total	88.190	89.627	88.908	677.732	Report Only	N/A

### Chromatographic Conditions:

Method: USP 43 - 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\_4

### Sample Preparation:

Weighed approximately 20 mg of test sample into a 50 mL volumetric flask and added 40 mL acetone. Vortexed for 30 seconds and sonicated for 15 minutes at room temperature. Let cool and filled to volume with acetone. Centrifuged for 10 mins and diluted 1:10 in mobile phase. Filtered through 0.45µm PTFE filter into HPLC vial for analysis.

### Report Summary:

**Conclusion:** This "FP 02372 - HSN Essentials - Curcumin Ext+ Bioperine 2.0 120v" test sample contains an average of 678 mg/capsule total curcuminoids as curcumin, desmethoxycurcumin, and bisdesmethoxycurcumin on the as-is basis.  
**OOS Reference:** N/A  
**Fill Weight:** 762.284 mg/capsule  
**WI Reference:** 15122 Curcuminoids

**Analysis Date :** 06/02/22

**Analyzed By:** JM Lopez

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