

CERTIFICATE OF ANALYSIS

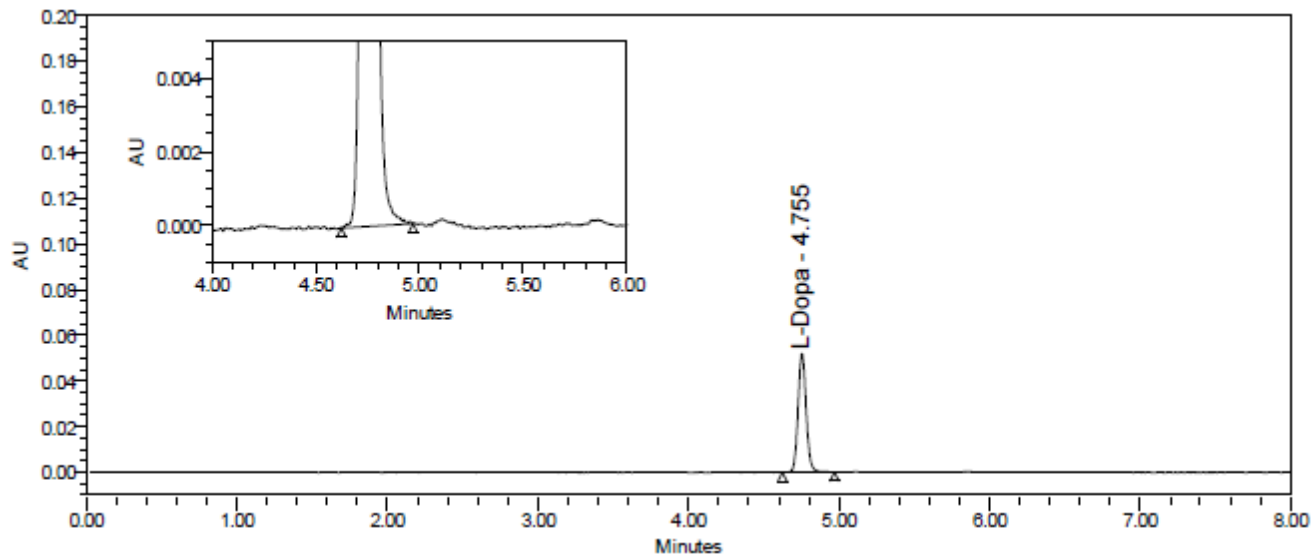


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Report Issued To: Superman Herbs
2800 S. Rodeo Gulch Dr Unit G
Soquel CA 95073
USA

Sample Name: Mucuna
Description: Powdered extract; Grey fine powder
Lot #: MP02
AL #: JAR32915SUP1_1
Analysis ID: 63300
Received: 11/25/15

Determination of L-Dopa Content High Performance Liquid Chromatography with Diode Array Detection



Ret. Time (min)	Compound Name	Amount (%)	Specification	Result
4.8	L-Dopa	15.7624	NLT 20%	Fail

Chromatographic Conditions:

Method: ATM-815-0171
Column: AP192 Gemini 5 μ C18 110A (250 x 4.6 mm)
Temperature: 60°C
Flow Rate: 0.8 mL/min
Injection Volume: 2 μ L
UV Detection: 225 nm
Mobile Phase: Water:Methanol:Phosphoric Acid (975.5:19.5:1;v/v/v)
HPLC Instrument: Alliance_1

Sample Preparation:

Weighed 50 mg of sample into a 25 mL volumetric flask and added 20 mL of 0.1 N HCl. Sonicated for 30 minutes at room temperature. Filled to volume with 0.1 N HCl. Diluted 4:25 with 0.1 N HCl. Centrifuged for ten minutes and transferred to HPLC vial for analysis.

Report Summary:

Conclusion: This "Mucuna" sample contains 16% L-dopa.
OOS Reference: N/A
Notebook Reference: LC074 p. 186

Analysis Date : 12/01/15 Analyzed By: K Patel

Authorized By: Holly E. Johnson, Ph.D.,
Senior Analytical Chemist