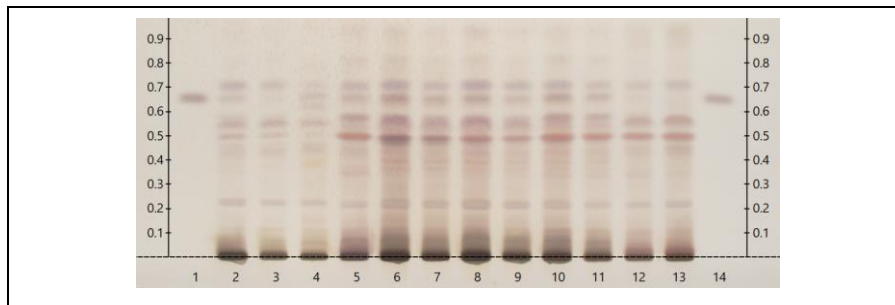


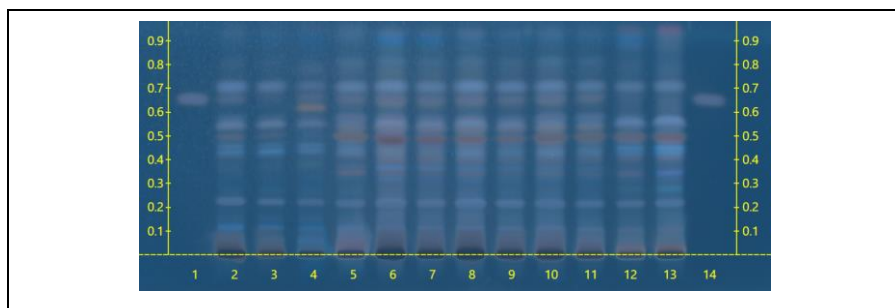


Certificate of Analysis: Ashwagandha Root Extract (LWS7EP2005K31)
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name:	MRIGlobal	Sample Received:	02/02/21
Title:	Ashwagandha Root Extract	Form of Botanical:	powdered extract
Plant Part:	root	Lot Number:	(LWS7EP2005K31) → Lanes 8(4µl), 9(2µl)
Appearance:	tan powder	Sample:	21033MEK_1
Sample Packaging:	Light Sensitive Glass Bottle or Jar		
Latin Name:	<i>Withania somnifera</i> (L.) Dunal [Solanaceae]		
Reference Sample:	Lane 2(8µl) (J15916NRPL1), Lane 3(8µl) (20174PEQ), Lane 4(8µl) (J04505PB), Lane 5(8µl) (J12903PI) <i>Withania somnifera</i> (root); Lane 12(5µl) (21021FML) <i>Withania somnifera</i> (root & aerial part); Lane 13(5µl) (J02218NRPL2) <i>Withania somnifera</i> (aerial part); held at Alkemist Labs, Garden Grove, CA.		
Analyst:	A. Davis, N. Afendikova, M. Edwards, S. Kabbaj, N. Hoang, K. Tran, J. Lopez, J. Mares 150225		
Sample Preparation:	0.3g+3mL 70% grain Ethanol, sonicate/heat at 50° C for 30 min.		
Stationary Phase:	Silica gel 60, HPTLC plates		
Mobile Phase:	Dichloromethane: Methanol [9/1]		
Detection:	(1) 10% Sulfuric, 100°C, 2min, Vis (Reich, E., 2007) (2) 10% Sulfuric, 100°C, 2min, 366nm (Reich, E., 2007)		
Reference Standard:	Lanes 1(1µl) and 14(1µl) Withanolide A (F01269, USP), Methanol (0000245307, BDH)		
Reference Source:	Method Developed by Alkemist Labs IDT-SOP-72-01		

Comments & Conclusions: Lanes 8, 9 are the test sample Ashwagandha Root Extract (LWS7EP2005K31) Lanes 2, 3, 4, 5, 12, 13 are the reference samples used for comparison. This test sample, Ashwagandha Root Extract (LWS7EP2005K31), has characteristics of the chromatographic profile of *Withania somnifera* reference samples used above. **This test sample Ashwagandha Root Extract (LWS7EP2005K31) has characteristics of *Withania somnifera* root.**

NOTE: The above conclusion may be a function of the natural variance found in botanicals &/or the extraction process used to create specific extracts. The growing and drying conditions, age, seasonal variations, geographic location, extraction solvents, etc. all play a role in the phytochemical fingerprint of botanicals as well as their extracts; hence, chromatographic variations are expected.

Examined, Reviewed & Authorized by: Khanh N Tran, HPTLC, R&D Supervisor, Alkemist Labs

Report Date: 02/08/21



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to LWS7EP2005K31.
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