

PRODUCT	<i>Asparagus officinalis</i> (Asparagus) Root	
PART NUMBER	00041306	
REFERENCE TYPE	Biomass Reference Material (VBRM) *	
LOT NUMBER	00041306-485	
COMMON NAME	Asparagus	
LATIN NAME	<i>Asparagus officinalis</i> L. [Liliaceae]	
PLANT PART	Root	
CDXA NUMBER	CDXA-12-9089	
REPORT NUMBER	CDXA-VBRMR-137-01	
DATE OF SAMPLE	03/11/2014	
DATE OF RE-EVALUATION	03/26/2019	
DATE OF REPORT	11/25/2019	

*Note – Vouchered (V) BRM is a voucher specimen

A full-size color voucher copy may be purchased by contacting the ChromaDex sales office

ANALYTICAL RESULTS

TEST	METHOD	RESULT
Appearance	Macroscopy	(1) Whole/Cut: Small light brown root pieces (2) Milled: Beige powder
Anatomy/Morphology	Microscopy (100X)	(1) Dimorphic exodermis consisting of long and short cells (2) The internal cortex showing the endodermis surrounding the polyarch bundle containing xylem and phloem poles
HP-TLC	CDXA-TLCM-410-01	Conforms

STORAGE CONDITIONS

STORAGE	20-30 °C; Dry storage area; Insect free; Volatile free
EXPIRATION DATE	03/2024 under the above conditions

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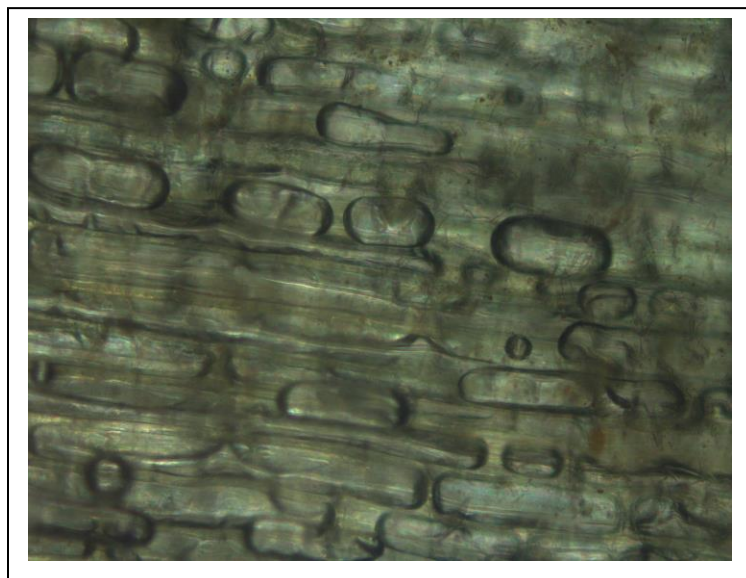
MACROSCOPY

(1)

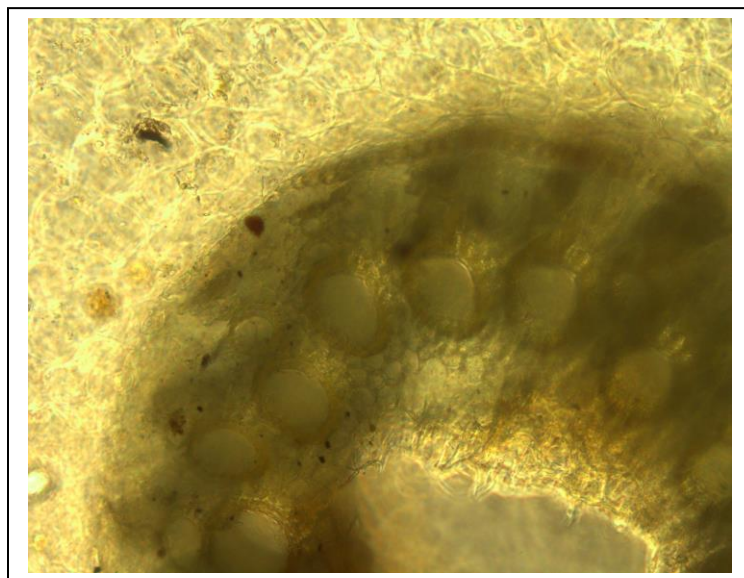


MICROSCOPY

(1)



(2)

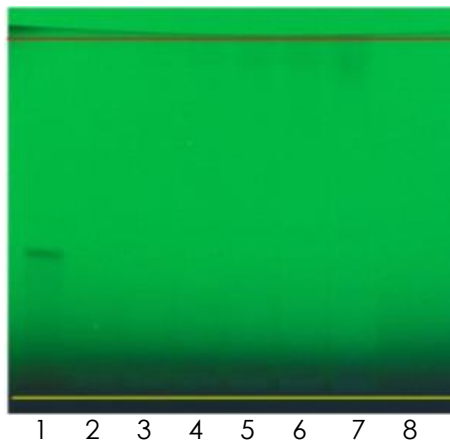


HP-TLC CONDITIONS

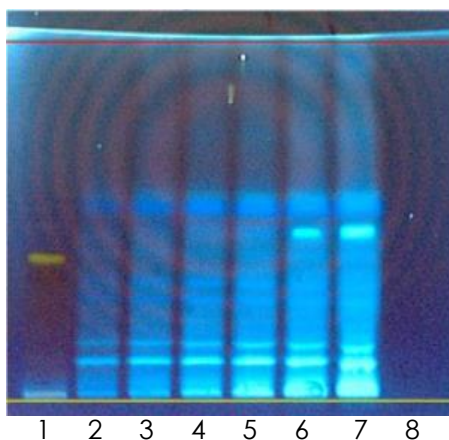
STATIONARY PHASE	Silica gel 60, F ₂₅₄ , 10 x 10 cm HP-TLC plates
SAMPLE PREPARATION	0.5 g + 5 mL methanol, sonicated in hot water bath for ~10 minutes and filtered through a 0.45 µm PTFE syringe filter.
MOBILE PHASE	Ethyl acetate/ formic acid/ acetic acid/ Milli-Q water [10/1.1/1.1/3]
CHAMBER TEMPERATURE	Ambient
DETECTION	(1) UV 254 nm (2) Anisaldehyde → UV 366 nm (3) Anisaldehyde → White Light

HP-TLC PLATES

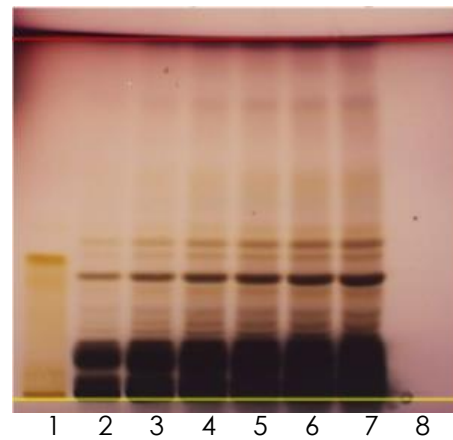
UV 254 nm



Anisaldehyde → UV 366 nm



Anisaldehyde → White Light



YELLOW LINE = SAMPLE ORIGIN
 RED LINE = SOLVENT FRONT @ 70 mm

HP-TLC LANE APPLICATIONS

Lane	ID	Lane	ID
1	Rutin	5	<i>Asparagus officinals</i> VBRM
2	<i>Asparagus officinals</i> VBRM	6	<i>Asparagus officinals</i> VBRM
3	<i>Asparagus officinals</i> VBRM	7	<i>Asparagus officinals</i> VBRM
4	<i>Asparagus officinals</i> VBRM	8	L-Asparagine

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	04/15/2014	New report
01	11/25/2019	Passed re-evaluation by HP-TLC. Updated HP-TLC method, conditions, and plates. Updated expiration date.

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