

PRODUCT	Echinacea (<i>Echinacea purpurea</i>) Root
PART NUMBER	00030785
REFERENCE TYPE	Biomass Reference Material (VBRM) *
LOT NUMBER	00030785-059
COMMON NAME	Echinacea
LATIN NAME	<i>Echinacea purpurea</i> (L.) Moench [Asteraceae]
PLANT PART	Root
CDXA NUMBER	CDXA-BRM-059
REPORT NUMBER	CDXA-VBRMR-073-03
DATE OF SAMPLE	08/14/2003
DATE OF RE-EVALUATION	09/01/2009 (1 st ReEval); 01/03/2013 (2 nd ReEval); 10/11/2018 (3 rd ReEval)
DATE OF REPORT	11/07/2018

*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: Dark brown root with smaller branches Milled: Beige Powder
Anatomy/Morphology	Microscopy	(1) Semi-hollow roots (2) Purple coloration was noted in above ground portions of stem bases and roots of sample.
HP-TLC	CDXA-TLCM-15-04	Conforms

STORAGE CONDITIONS

STORAGE	20-30 °C; Dry storage area; Insect free; Volatile free
EXPIRATION DATE	10/2023 under the above conditions

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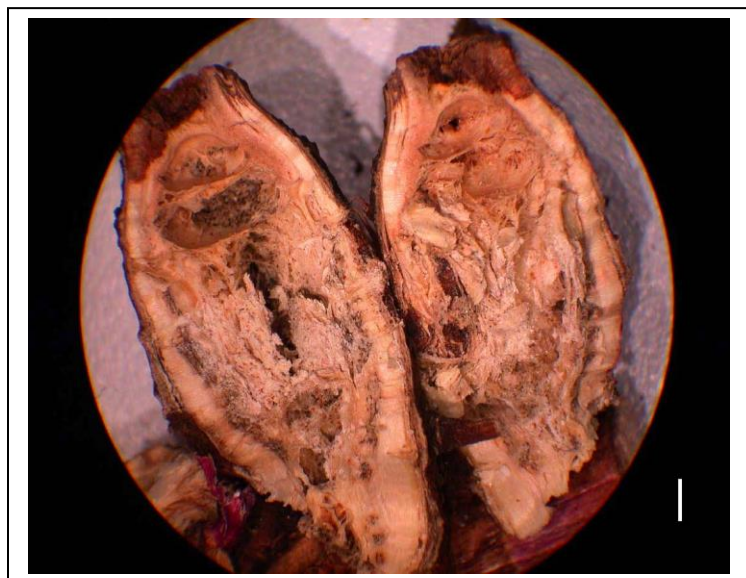
MACROSCOPY

(1)

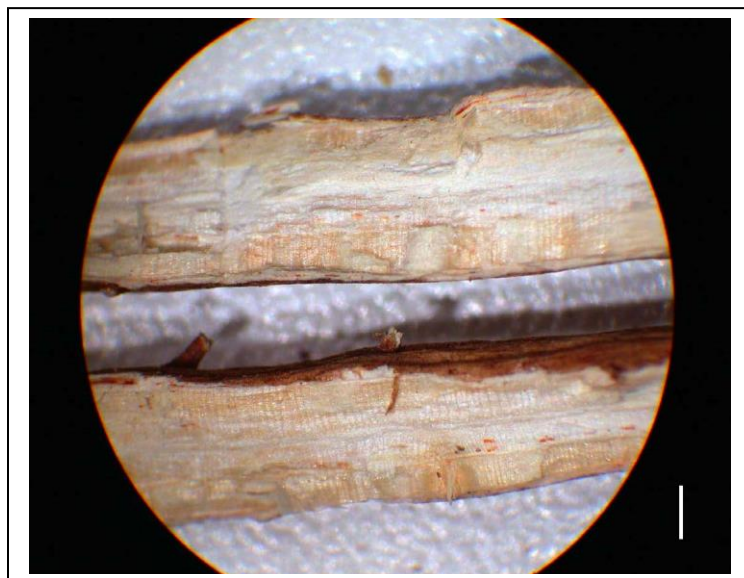


MICROSCOPY

(1)

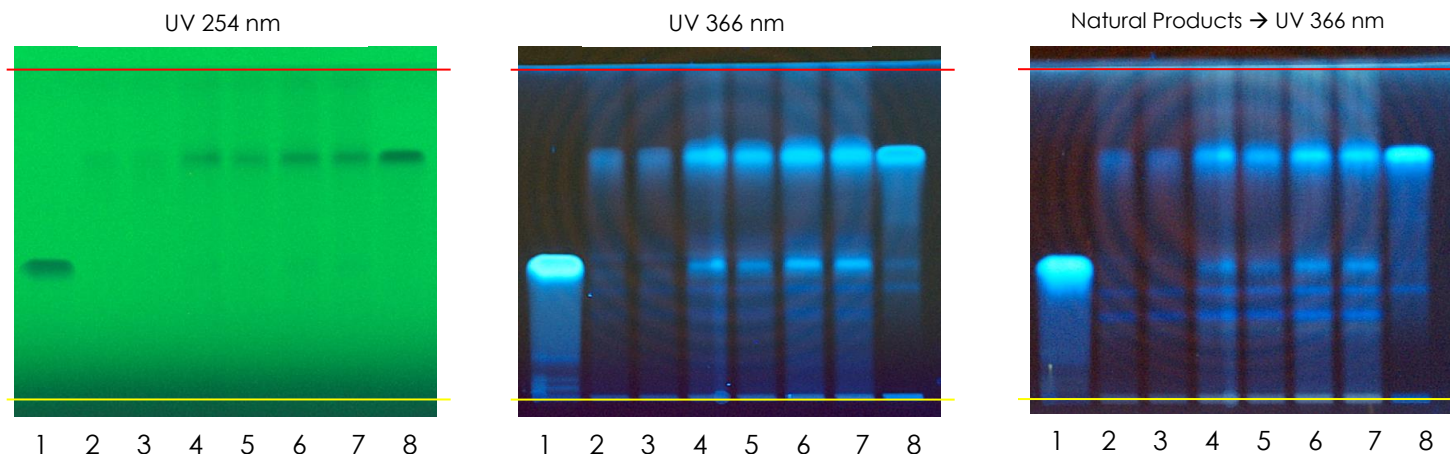


(2)



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, filtered through a 0.45 µm PTFE syringe filter.
MOBILE PHASE	Ethyl acetate/ formic acid/ acetic acid/ Milli-Q water [10/1.1/1.1/1.2]
CHAMBER TEMPERATURE	Ambient
DETECTION	(1) UV 254 nm (2) UV 366 nm (3) Natural Products → UV 366 nm

HP-TLC PLATES


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

HP-TLC LANE APPLICATIONS

Lane	ID	Lane	ID
1	Caftaric acid	5	<i>Echinacea purpurea</i> VBRMR
2	<i>Echinacea purpurea</i> VBRMR	6	<i>Echinacea purpurea</i> VBRMR
3	<i>Echinacea purpurea</i> VBRMR	7	<i>Echinacea purpurea</i> VBRMR
4	<i>Echinacea purpurea</i> VBRMR	8	Cichoric acid

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	12/20/2007	New report
01	09/01/2009	Passed first re-evaluation; updated expiration date; general template update
02	01/03/2013	Passed second re-evaluation; updated expiration date; general template update
03	11/07/2018	Passed third re-evaluation; updated HP-TLC conditions, HP-TLC plates, and expiration date; general template update

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