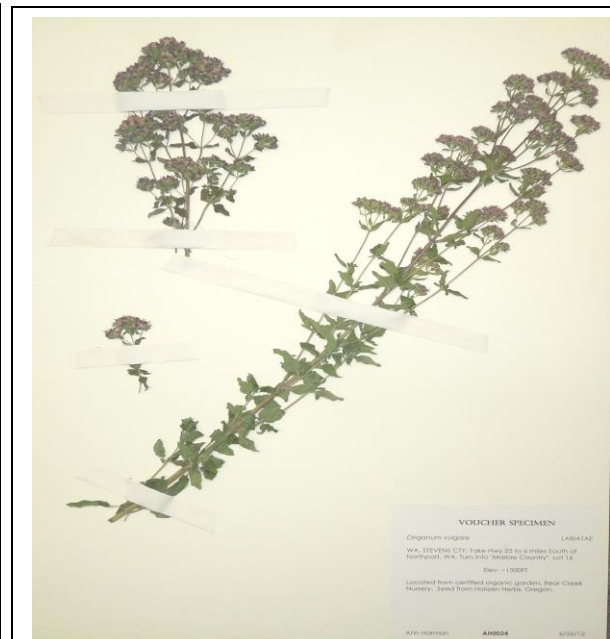


|                             |  |
|-----------------------------|--|
| <b>PRODUCT</b>              | Oregano ( <i>Origanum vulgare</i> ) Leaf                     |
| <b>PART NUMBER</b>          | 00031335   |
| <b>REFERENCE TYPE</b>       | Biomass Reference Material (VBRM) *                          |
| <b>LOT NUMBER</b>           | 00031335-455   |
| <b>COMMON NAME</b>          | Oregano  |
| <b>LATIN NAME</b>           | <i>Origanum vulgare</i> L. [Lamiaceae]                       |
| <b>PLANT PART</b>           | Leaf   |
| <b>SAMPLE NUMBER</b>        | CDXA-12-5711   |
| <b>REPORT NUMBER</b>        | CDXA-VBRMR-119-02  |
| <b>DATE OF SAMPLE</b>       | 04/09/2013   |
| <b>DATE OF REEVALUATION</b> | 12/28/2018 (1 <sup>st</sup> ); 03/28/2022 (2 <sup>nd</sup> ) |
| <b>DATE OF REPORT</b>       | 04/14/2022   |



\*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: Dried green leaves with brown stems<br>(2) Milled: Pale green powder |
| Anatomy/Morphology | Microscopy (200x)     | (1) Maltese Cross starch granule, polar filter.<br>(2) Diacytic stoma; lower leaf.  |
| HP-TLC             | See HP-TLC conditions | Conforms  |

## STORAGE CONDITIONS

|                        |  |
|------------------------|--|
| <b>STORAGE</b>         | 20-30 °C; Dry storage area; Insect free; Volatile free |
| <b>EXPIRATION DATE</b> | 03/2027 under the above conditions                     |

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## MACROSCOPY

(1)

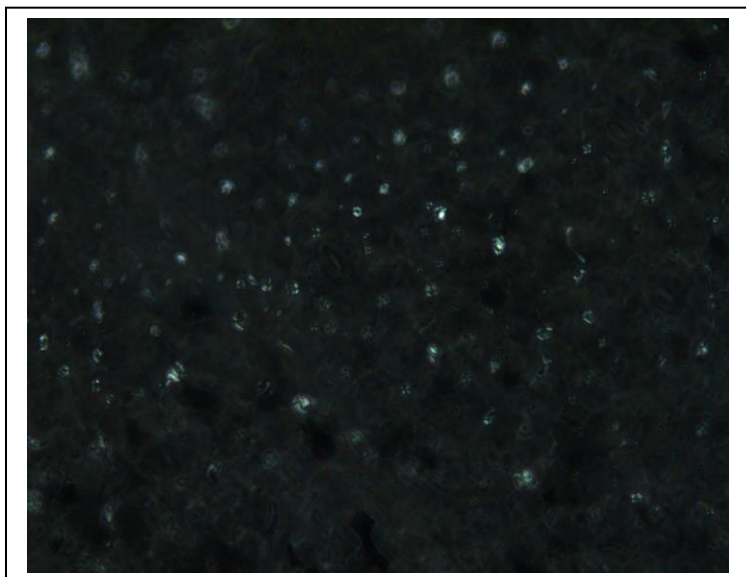


(2)

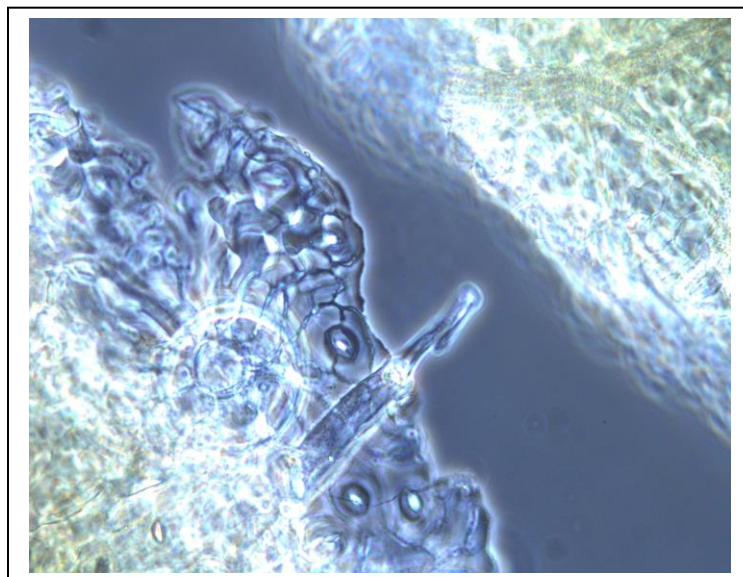


## MICROSCOPY

(1)



(2)



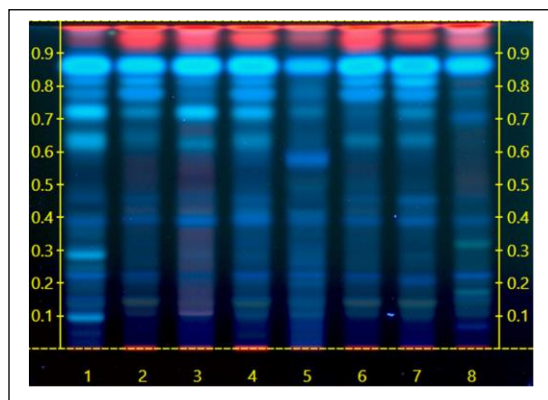
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## HP-TLC CONDITIONS

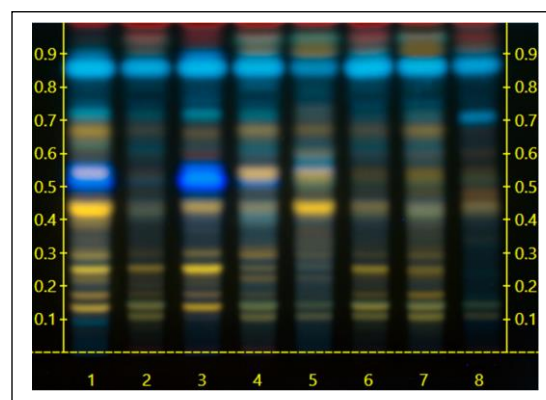
|                           |  |
|---------------------------|--|
| <b>STATIONARY PHASE</b>   | Silica gel 60, HPTLC plates  |
| <b>SAMPLE PREPARATION</b> | 0.3 g + 3 mL Methanol, sonicate/heat at 50 °C for 30 min.          |
| <b>MOBILE PHASE</b>       | Ethyl acetate/ Acetic acid/ Formic acid/ Water<br>[10/1.1/1.1/2.6] |
| <b>DETECTION</b>          | (1) UV 366 nm<br>(2) Natural Product + Polyethylene Glycol, 366nm  |

## HP-TLC PLATES

HP-TLC (1)



HP-TLC (2)



## HP-TLC LANE APPLICATIONS

| Lane | ID   | Lane | ID  |
|------|--|------|---|
| 1    | <i>Origanum vulgare</i> (aerial part) (3 µL)             | 5    | NA  |
| 2    | <i>Origanum vulgare</i> ssp. <i>hirtum</i> (leaf) (3 µL) | 6    | <i>Origanum vulgare</i> ssp. <i>hirtum</i> (herb) (3 µL)        |
| 3    | <i>Origanum vulgare</i> BRM (3 µL)                       | 7    | <i>Origanum vulgare</i> ssp. <i>hirtum</i> (aerial part) (3 µL) |
| 4    | NA   | 8    | <i>Origanum majorana</i> (herb (leaf, flower, stem)) (3 µL)     |

## REVISION HISTORY

| Revision History | Date of Revision | Document/Changes  |
|------------------|------------------|---|
| 00               | 07/12/2013       | New report  |
| 01               | 12/18/2018       | Revision; updated expiration date.  |
| 02               | 04/14/2022       | Material passed reevaluation by HP-TLC. Updated expiration date, template, HP-TLC method conditions, plates, and lane applications. |

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