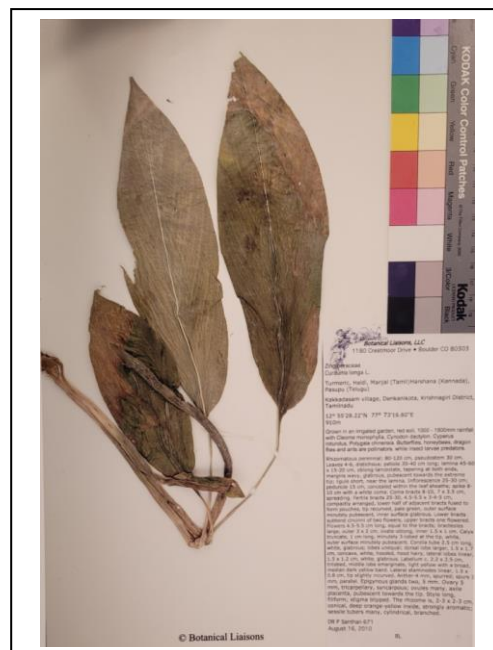


| | |
|-----------------------|---|
| PRODUCT | <i>Curcuma longa</i> (Turmeric) Rhizome |
| PART NUMBER | 00030963 |
| REFERENCE TYPE | Biomass Reference Material (VBRM) * |
| LOT NUMBER | 00030963-120 |
| COMMON NAME | Turmeric |
| LATIN NAME | <i>Curcuma longa</i> L. [Zingiberaceae] |
| PLANT PART | Rhizome |
| SAMPLE NUMBER | CDXP-20-00895 |
| REPORT NUMBER | CDXA-VBRM-200-00 |
| DATE OF SAMPLE | 12/15/2020 |
| DATE OF REPORT | 01/25/2021 |

*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) bright yellow rhizomes fusiform, curved, slightly branched; externally dark yellow, rough, with wrinkled striations and cyclic nodes (2) (10x) texture hard, fracture golden-yellow with waxy luster, endodermis ring distinct (3) Milled: Orange powder |
| Anatomy/Morphology | Microscopy (acidified chloral hydrate glycerol solution) | (1) (400x) segment of unicellular covering trichome (2) (400x) parenchyma and oleoresin cells |
| HP-TLC | See HP-TLC | Conforms |

STORAGE CONDITIONS

| | |
|------------------------|--|
| STORAGE | 20-30 °C; Dry storage area; Insect free; Volatile free |
| EXPIRATION DATE | 12/2025 under the above conditions |

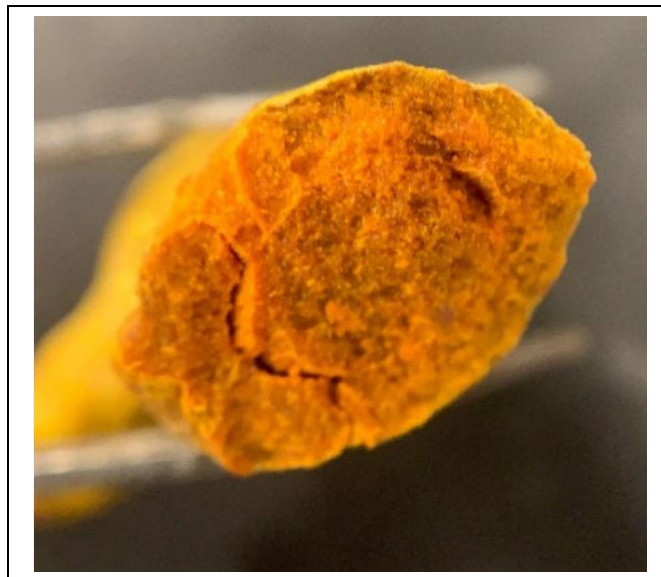
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MACROSCOPY

(1)



(2)



(3)



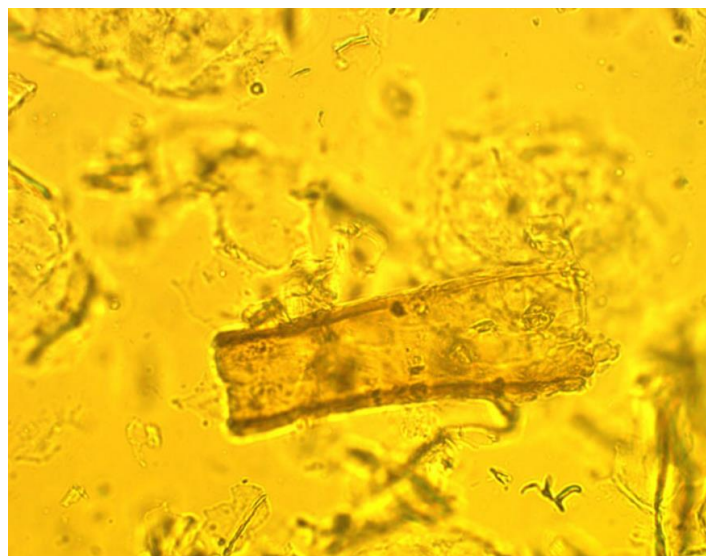
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Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

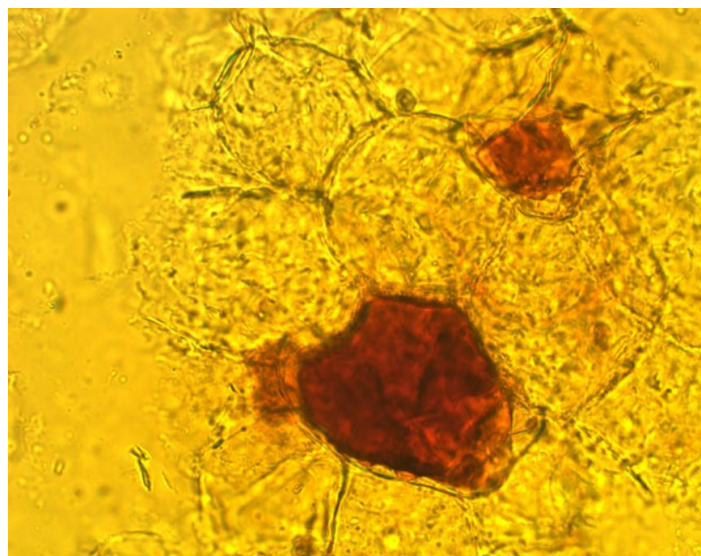
India Contact: Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi - 110034 (INDIA).
Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com

MICROSCOPY

(1)



(2)

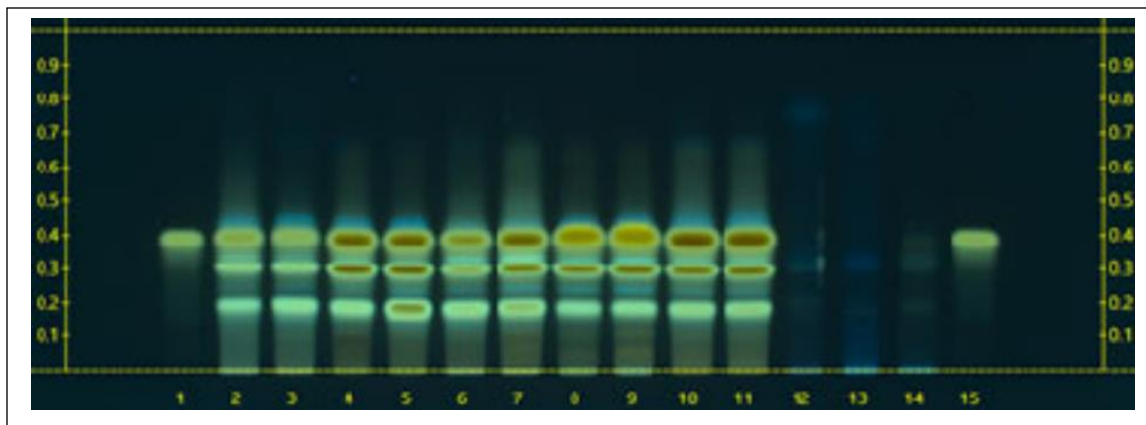

HP-TLC CONDITIONS

| | |
|---------------------------|--|
| STATIONARY PHASE | Silica gel 60, HPTLC plates |
| SAMPLE PREPARATION | 0.3 g + 3 mL 70% Ethanol, sonicate/heat at 50 °C for 30 min. |
| MOBILE PHASE | Chloroform: Ethanol: Acetic acid [9.5/0.5/0.1] |
| DETECTION | (1) UV 366 nm (2) Vanillin/Sulfuric, 110°C, 2min, 366nm |

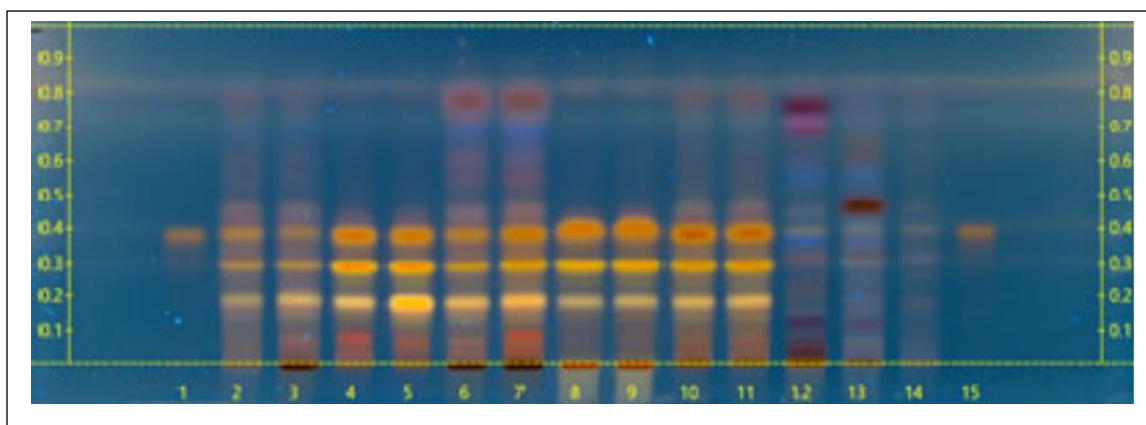
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HP-TLC PLATES

HP-TLC (1)



HP-TLC (2)



HP-TLC LANE APPLICATIONS

| Lane | ID | Lane | ID |
|------|--|------|--|
| 1 | Curcumin reference sample (2 µL) | 9 | N/A |
| 2 | <i>Curcuma longa</i> (root) (2 µL) | 10 | N/A |
| 3 | <i>Curcuma longa</i> (root) (2 µL) | 11 | N/A |
| 4 | N/A | 12 | <i>Curcuma phaeocaulis</i> (root) (2 µL) |
| 5 | N/A | 13 | <i>Curcuma zedoaria</i> (rhizome) (2 µL) |
| 6 | N/A | 14 | <i>Curcuma</i> sp. (root) (2 µL) |
| 7 | <i>Curcuma longa</i> Rhizome VBRM (2 µL) | 15 | Curcumin reference sample (2 µL) |
| 8 | N/A | 16 | N/A |

REVISION HISTORY

| <u>Revision History</u> | <u>Date of Revision</u> | <u>Document/Changes</u> |
|-------------------------|-------------------------|-------------------------|
| 00 | 01/25/2021 | New report |

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