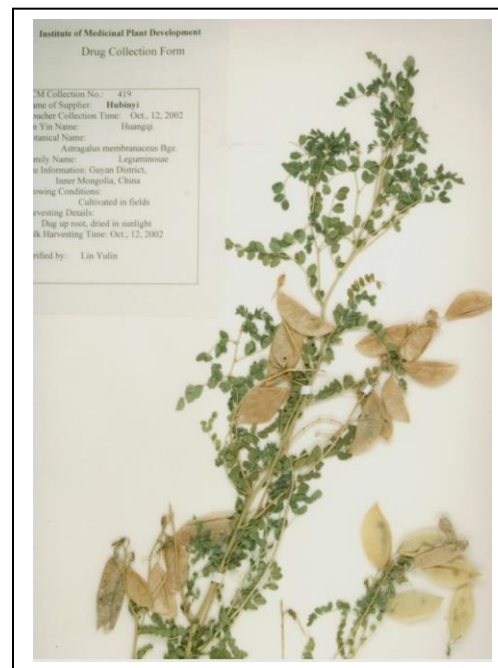


| | |
|-----------------------|---|
| PRODUCT | <i>Astragalus membranaceus</i> (Astragalus) Root |
| PART NUMBER | 00030695 |
| REFERENCE TYPE | Biomass Reference Material (VBRM) * |
| LOT NUMBER | 00030695-003 |
| COMMON NAME | Astragalus |
| LATIN NAME | <i>Astragalus membranaceus</i> (Fisch. ex Link) Bunge [Fabaceae] |
| PLANT PART | Root |
| SAMPLE NUMBER | CDXA-BRM-003 |
| REPORT NUMBER | CDXA-VBRM-201-00 |
| DATE OF SAMPLE | 04/20/2020 |
| DATE OF REPORT | 05/20/2021 |



***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) Whole/Cut: 2-inch cylindrical beige pieces of root (2) Milled: Fluffy yellow powder |
| Anatomy/Morphology | Microscopy | (1) (400x) Slightly braided bundle of fibers shown under polarized light (2) (400x) Large vessel with yellow tint |
| HP-TLC | See HP-TLC conditions | Conforms |

STORAGE CONDITIONS

| | |
|------------------------|--|
| STORAGE | 20-30 °C; Dry storage area; Insect free; Volatile free |
| EXPIRATION DATE | 04/2025 under the above conditions |

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MACROSCOPY

(1)

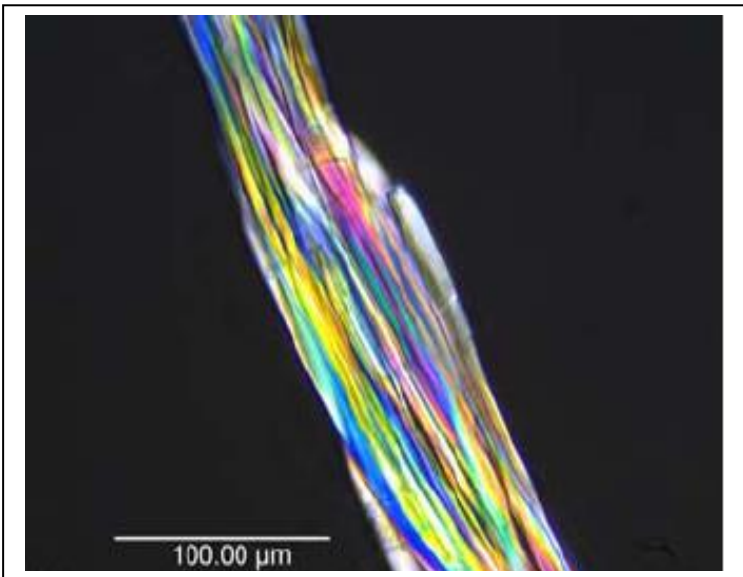


(2)



MICROSCOPY

(1)



(2)



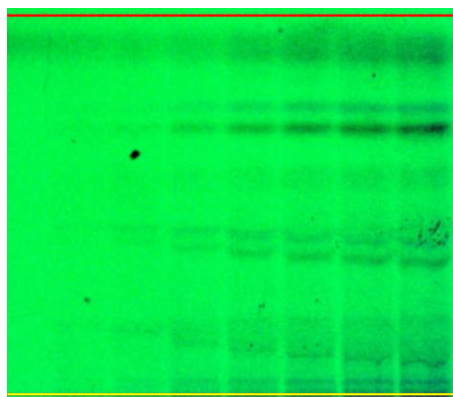
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HP-TLC CONDITIONS

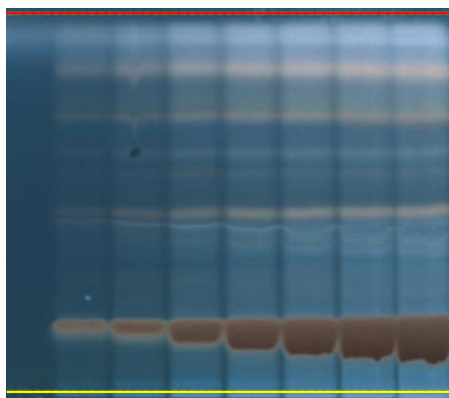
| | |
|---------------------------|---|
| STATIONARY PHASE | Sorbtech, Silica Gel G, 10 x 10 cm HP-TLC plates |
| SAMPLE PREPARATION | ~0.5 g + 5 mL Ethyl Acetate, sonicated in hot water bath for ~10 minutes. |
| MOBILE PHASE | Chloroform/methanol/Milli-Q water [9/4/0.5] |
| DETECTION | (1) UV 254 nm (2) 5% H ₂ SO ₄ /methanol reagent → UV 366 nm (3) 5% H ₂ SO ₄ /methanol reagent → visible light |

HP-TLC PLATES

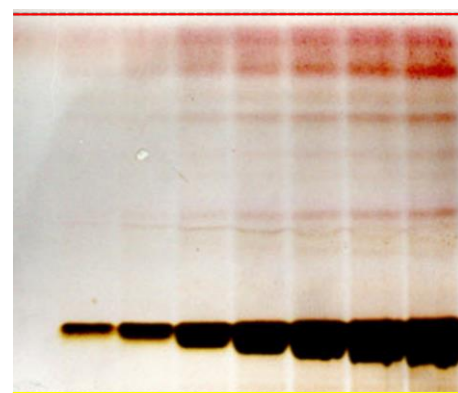
UV 254 nm



1 2 3 4 5 6 7 8

 5% H₂SO₄/methanol reagent → UV 366 nm


1 2 3 4 5 6 7 8

 5% H₂SO₄/methanol reagent → visible light


1 2 3 4 5 6 7 8

YELLOW LINE = SAMPLE ORIGIN
 RED LINE = SOLVENT FRONT @ 74 mm

HP-TLC LANE APPLICATIONS

| Lane | ID | Lane | ID |
|------|---------------------------------------|------|--|
| 1 | MeOH blank 2.0 µL | 5 | <i>Astragalus membranaceus</i> 6.0 µL |
| 2 | <i>Astragalus membranaceus</i> 1.0 µL | 6 | <i>Astragalus membranaceus</i> 8.0 µL |
| 3 | <i>Astragalus membranaceus</i> 2.0 µL | 7 | <i>Astragalus membranaceus</i> 10.0 µL |
| 4 | <i>Astragalus membranaceus</i> 4.0 µL | 8 | <i>Astragalus membranaceus</i> 12.0 µL |

REVISION HISTORY

| Revision History | Date of Revision | Document/Changes |
|------------------|------------------|------------------|
| 00 | 05/20/2021 | New report |

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