

PRODUCT	Mate (<i>Ilex paraguariensis</i>) Leaf
PART NUMBER	00030830
REFERENCE TYPE	Biomass Reference Material (BRM) *
LOT NUMBER	00030830-187
COMMON NAME	Mate
LATIN NAME	<i>Ilex paraguariensis</i> A. St. -Hil. [Aquifoliaceae]
PLANT PART	Leaf
CDXP NUMBER	CDXA-BRM-187
REPORT NUMBER	CDXA-BRMR-040-03
DATE OF SAMPLE	06/20/2007
DATE OF RE-EVALUATION	11/11/2011 (1 st); 05/10/2016 (2 nd); 06/25/2020 (3 rd)
DATE OF REPORT	08/03/2020

*Note – Biomass Reference Material (BRM) is not a voucher specimen

ANALYTICAL RESULTS

TEST	METHOD	RESULT
Appearance	Macroscopy	(1) Whole/Cut: Small green fragments of leaf with tan stem Milled: Light olive green fine powder
Anatomy/Morphology	Microscopy	(1) Lower epidermis showing actinocytic stomata (400X)
HP-TLC	CDXA-TLCM- 231-00	Conforms

STORAGE CONDITIONS

STORAGE	20-30 °C; Dry storage area; Insect free; Volatile free
EXPIRATION DATE	06/2025 under the above conditions

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MACROSCOPY

(1)



MICROSCOPY

(1)

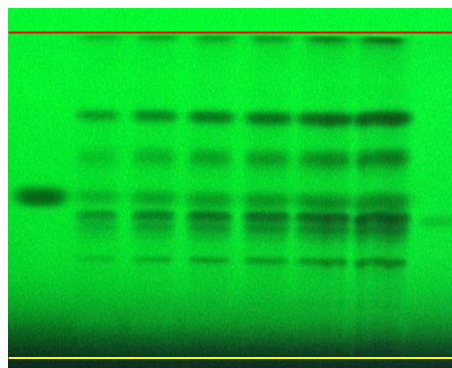


HP-TLC CONDITIONS

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.
MOBILE PHASE	Ethyl acetate/ formic acid/ acetic acid/ Milli-Q water [10/1.1/1.1/2.6]
CHAMBER TEMPERATURE	Ambient
DETECTION	(1) UV 254 nm (2) Natural products spray reagent → UV 365 nm (3) Anisaldehyde/H ₂ SO ₄ spray reagent → visible light

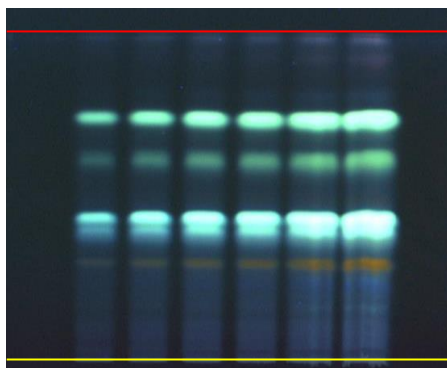
HP-TLC PLATES

UV 254 nm

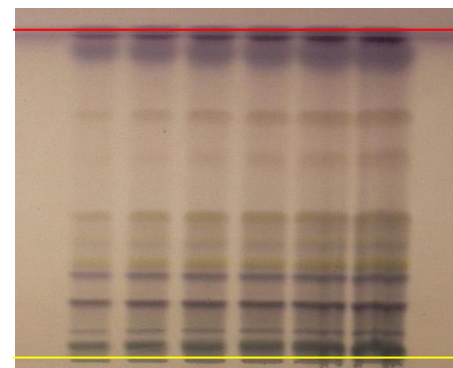


1 2 3 4 5 6 7 8

Natural products → UV 365 nm



1 2 3 4 5 6 7 8

Anisaldehyde/H₂SO₄ → visible light


1 2 3 4 5 6 7 8

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

HP-TLC LANE APPLICATIONS

Lane	ID	Lane	ID
1	Caffeine	5	<i>Ilex paraguariensis</i> BRM
2	<i>Ilex paraguariensis</i> BRM	6	<i>Ilex paraguariensis</i> BRM
3	<i>Ilex paraguariensis</i> BRM	7	<i>Ilex paraguariensis</i> BRM
4	<i>Ilex paraguariensis</i> BRM	8	Theobromine

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	07/12/07	New report
01	11/11/11	Passed re-evaluation; updated expiration date; general template update; updated TLC pictures
02	05/10/2016	Passed re-evaluation; updated expiration date; general template update; updated TLC pictures; added revision history
03	08/03/2020	Material passed re-evaluation by HP-TLC. Updated template and expiration date.

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