

PRODUCT	<i>Linum usitatissimum</i> (Flax seed) Seed
PART NUMBER	00030250
REFERENCE TYPE	Biomass Reference Material (BRM) *
LOT NUMBER	00030250-253
COMMON NAME	Flax Seed
LATIN NAME	<i>Linum usitatissimum</i> L. [Linaceae]
PLANT PART	Seed
SAMPLE NUMBER	CDXP-22-00607
REPORT NUMBER	CDXA-BRM-229-00
DATE OF SAMPLE	07/07/2022
DATE OF REPORT	08/03/2022

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

ANALYTICAL RESULTS

TEST	METHOD	RESULT
Appearance	Macroscopy	(1) Whole/Cut: seed with a flattened, elongated ovoid shape, testa is dark reddish-brown or yellow, smooth and shiny, 4-6 mm long, 2-3 mm wide; one end is rounded and the other end forms an oblique point near which the hilum appears as a slight depression (2) Milled: Brown powder
Anatomy/Morphology	Microscopy (acidified chloral hydrate glycerol solution)	(1) (400x) - fragment of the inner testa (2) (400x) - overlapping sclerenchymatous and subepidermal layers
HP-TLC	See HP-TLC conditions	Conforms

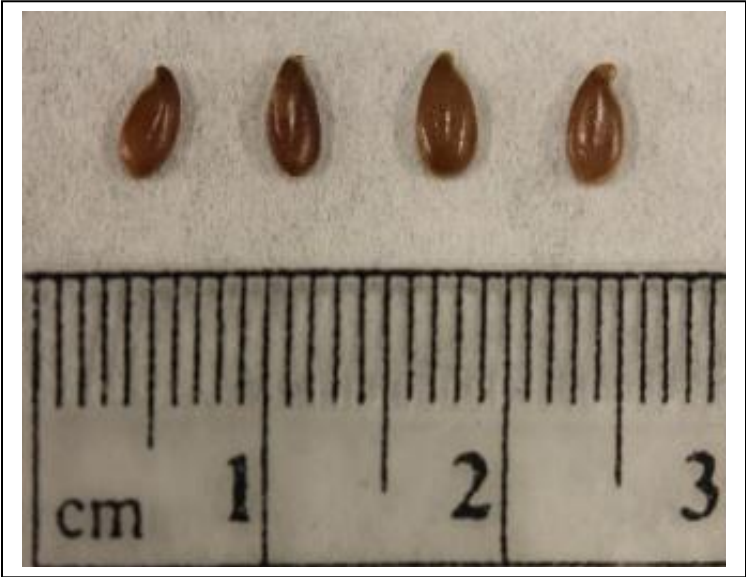
STORAGE CONDITIONS

STORAGE	20-30 °C; Dry storage area; Insect free; Volatile free
EXPIRATION DATE	07/2027 under the above conditions

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MACROSCOPY

(1)



(2)

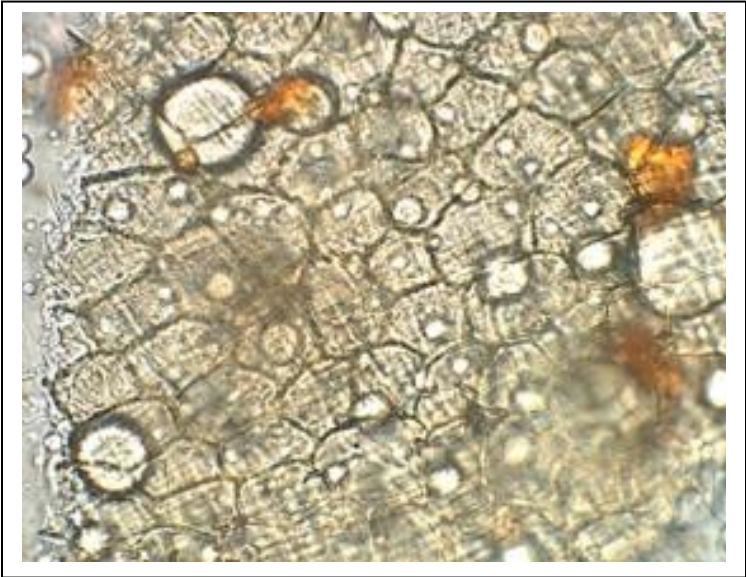


MICROSCOPY

(1)



(2)



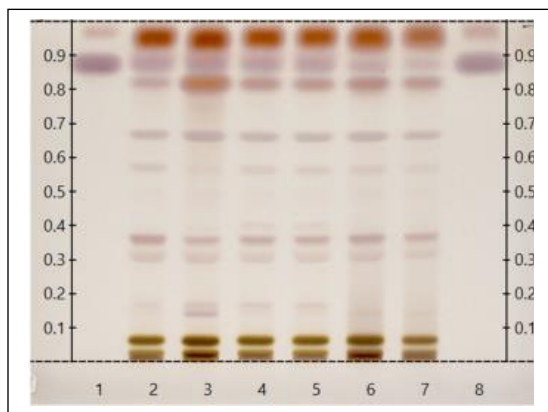
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HP-TLC CONDITIONS

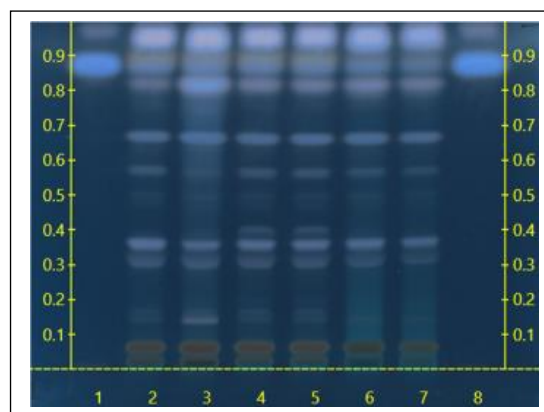
STATIONARY PHASE	Silica gel 60, HPTLC plates
SAMPLE PREPARATION	0.3 g + 3 mL Methanol, sonicate/heat at 50 °C for 30 min.
MOBILE PHASE	Chloroform: Methanol: Water [6.2/2.6/0.4]
DETECTION	(1) 10% Sulfuric, 100°C, 2min, Visible light (2) 10% Sulfuric, 100°C, 2min, 366nm

HP-TLC PLATES

HP-TLC (1)



HP-TLC (2)



HP-TLC LANE APPLICATIONS

Lane	ID	Lane	ID
1	β -Sitosterol, Methanol (3 μ L)	5	<i>Linum usitatissimum</i> BRM (6 μ L)
2	<i>Linum usitatissimum</i> Seed (6 μ L)	6	<i>Linum usitatissimum</i> Hull (6 μ L)
3	<i>Linum usitatissimum</i> Seed (6 μ L)	7	<i>Linum usitatissimum</i> Hull (4 μ L)
4	<i>Linum usitatissimum</i> BRM (6 μ L)	8	β -Sitosterol, Methanol (3 μ L)

REVISION HISTORY

Revision History	Date of Revision	Document/Changes
00	08/01/2022	New report

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