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PRODUCT NAME	Isoquercetin	Structure	
PART NUMBER	00009505	ОН	
STANDARD TYPE	Primary (P) – AHP Verified*	Un	
LOT NUMBER	0009505-049	но	
REPORT NUMBER	CDXA-RSS-4943-03	ОН	
SAMPLE NUMBER	CDXA-12-2466	Mining O strum	
DATE OF SAMPLE	04/23/2012	ОНО	
DATE OF RE-EVALUATION	03/09/2016 (1 st), 04/02/2020 (2 nd)	но	
DATE OF REPORT	04/30/2020	Ēн	
CHEMICAL NAMES	2-(3,4-Dihydroxyphenyl)-3-(β-D-gluc benzopyran-4-one; Hirsutrin	opyranosyloxy)-5,7-dihydroxy-4H-1-	
CHEMICAL FORMULA	C ₂₁ H ₂₀ O ₁₂		
MOLECULAR WEIGHT (MW)	464.38		
CHEMICAL FAMILY	Flavones		
CAS NUMBER	[482-35-9]		
EC#(EINECS)	640-533-1		
RTECS	DJ2982500		

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT	
Adjusted Purity	NA	NA	94.0%	
HPLC	0.700.10.2.METH22	NA	97.8%	
NMR	99.1-CD-1.0-000122	Conforms to structure	Conforms to structure	
Mass Spectrum	Direct Infusion, ESI (–)	Conforms	Conforms	
Residual Solvent	99.1-CD-5.0-000115	NA	ND	
Water	0.700.12.37	NA	3.9%	
Appearance	Appearance NA		Yellow powder	

ADJUSTED PURITY: 94.0% IS BASED ON (100 - 3.9 WATER - 0.0 SOLVENTS) X 97.8% HPLC

STORAGE CONDITIONS

STORAGE

Room Temperature in a dry place.

EXPIRATION DATE 04/2025 under the above conditions.

*AMERICAN HERBAL PHARMACOPOEIATM BOTANICAL AND CHEMICAL REFERENCE STANDARD VERIFICATION PROGRAM AVAILABLE THROUGH CHROMADEX

American Herbal PharmacopoeiaTM botanical reference standards are now available. Each American Herbal Pharmacopoeia VerifiedTM chemical reference is subjected to independent verification for identity and level of purity by American Herbal Pharmacopoeia VerifiedTM collaborating laboratories. The corresponding data package is similarly archived at the American Herbal Pharmacopoeia VerifiedTM. Corresponding certificates of analyses are available through the authorized licensees of American Herbal Pharmacopoeia VerifiedTM standards.

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10005 MUIRLANDS BLVD., SUITE G, IRVINE, CA 92618 | T: +1 <u>949-419-0288</u> | F: +1 <u>949-419-0294</u> | WWW.CHROMADEX.COM LABORATORY ADDRESS: 1751 S. FORDHAM ST., SUITE 350, LONGMONT, CO 80503 <u>India Contact:</u> 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







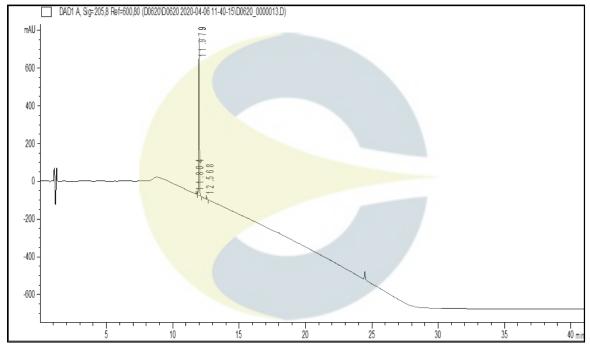
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ANALYTICAL CONDITIONS

INSTRUMENT	AGILENT 1260 HPLC UV-VIS (DAD), AGILENT 6510 QTOF	
COLUMN	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size	
MOBILE PHASE	A - 0.1% Trifluoroacetic acid in Milli-Q water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. Hold c 95% B for 15 minutes.	
COLUMN TEMP.	60 °C	
FLOW RATE	0.4 mL/minute	
INJECTION VOL.	0.2 µL	
INJECTION CONC.	1.1 mg/mL in Methanol	
DETECTION	205 ± 4 nm	

HPLC CHROMATOGRAM OF ISOQUERCETIN (CDXA-12-2466)





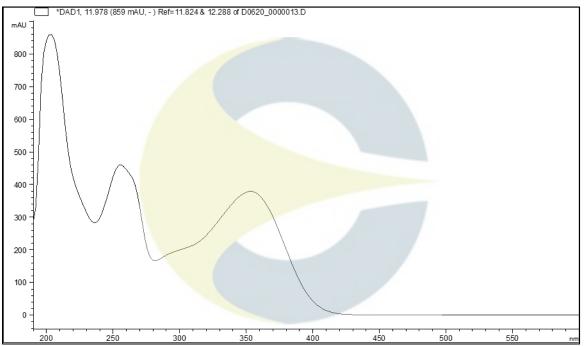




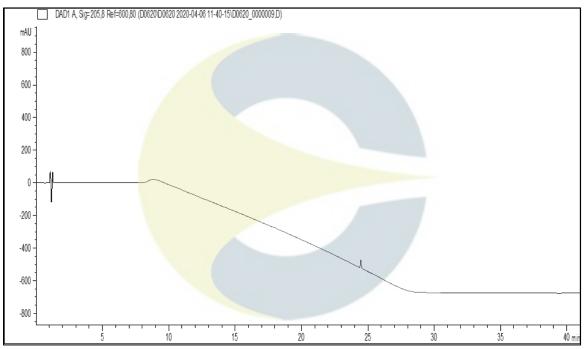
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UV SPECTRUM AT RT = 12.0 MINUTES



HPLC CHROMATOGRAM OF DILUENT BLANK







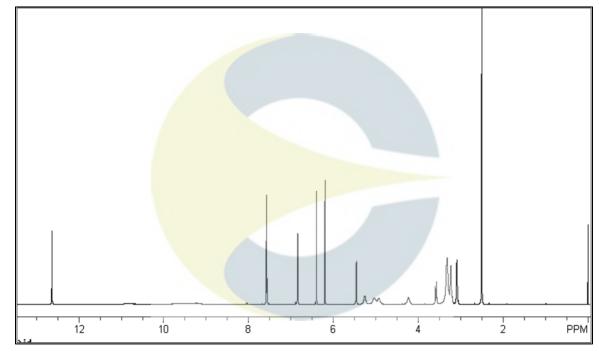


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MASS SPECTRUM OF ISOQUERCETIN (CDXA-12-2466) x10 ⁵ -ESI Scar:4 (0.994-2.742 min, 88 scans) Frag=190.0V D2412_76.d 3.8 3.6 3.4 3.2-3 2.8 2.6 2.4 22 927 184791 463 090086 2 1.8 1.6 1.4 1.2 0.8 0.6 0.4-1033.988027 577.081869 0.2 550 700 900 1050 1150 250 300 400 450 500 600 650 750 800 850 1000 1100 350 950 Counts (%) vs. Mass-to-Charge (m/z)

¹H-NMR SPECTRUM OF ISOQUERCETIN (CDXA-12-2466) IN DMSO-d₆





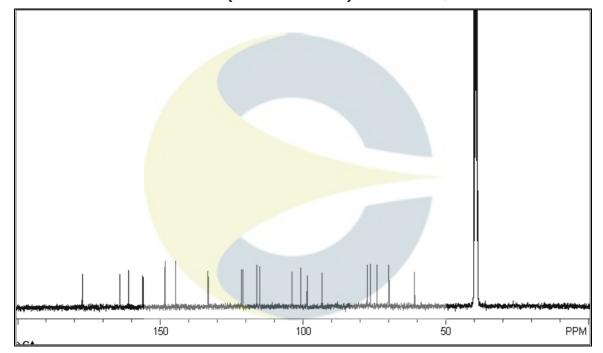


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¹³C-NMR SPECTRUM OF ISOQUERCETIN (CDXA-12-2466) IN DMSO-d₆







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COSY-NMR SPECTRUM OF ISOQUERCETIN (CDXA-12-2466) IN DMSO-d6

ppm Ø 3 00 ο. 4 0 5 00 ò 6 .0 ٥ 0 7 0 8 9 10 11 12 ۲ -13 13 12 11 10 9 8 7 6 5 4 3 ppm

REVISION HISTORY

<u>Revision History</u>	Date of Revision	Document/Changes
00	04/27/2012	New report
01	08/19/2014	Updated product grade to AHP
02	03/31/2016	Passed re-evaluation by HPLC, KF. Updated expiration date.
03	04/30/2020	Passed re-evaluation by HPLC & water determination. Added EC#. Removed Melting Point. Updated Analytical Conditions, Results, chromatograms, UV spectrum, & expiration date.

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