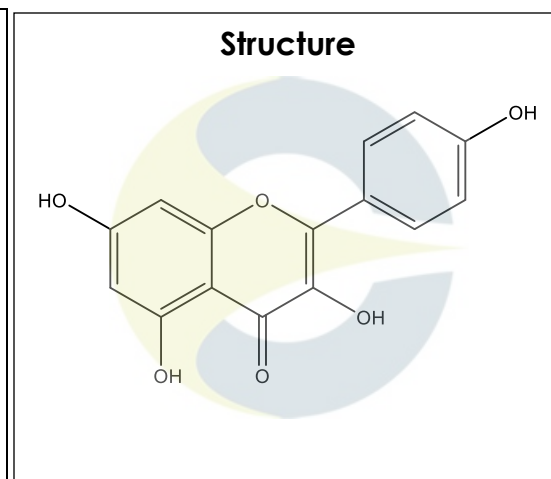


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PRODUCT NAME	Kaempferol
PART NUMBER	00011020
STANDARD TYPE	Primary (P)
LOT NUMBER	00011020-001
REPORT NUMBER	CDXA-RSS-5268-02
SAMPLE NUMBER	CDXA-12-8275
DATE OF SAMPLE	11/12/2012
DATE OF RE-EVALUATION	10/18/2016 (1 st); 10/28/2020 (2 nd)
DATE OF REPORT	11/16/2020


CHEMICAL NAMES

3,5,7-Trihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one; 3,4',5,7-Tetrahydroxyflavone; Kaempferol; Nimbecetin; Populnetin; Rhamnolutin; Robigenin; Swartziol; Trifolitin

CHEMICAL FORMULA C₁₅H₁₀O₆

MOLECULAR WEIGHT (MW) 286.24

CHEMICAL FAMILY Flavonoids

CAS NUMBER [520-18-3]

EC#(EINECS) 208-287-6

RTECS LK9275200

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	93.4%
HPLC	0.700.10.2.METH22	≥ 90%	99.7%
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-6.0-0000115	NA	EtOH – 0.3%
Water	0.700.12.37	NA	6.0%
Appearance	NA	NA	Yellow powder

ADJUSTED PURITY: 93.4% IS BASED ON (100 - 6.0 WATER - 0.3 SOLVENTS) X 99.7% HPLC

STORAGE CONDITIONS

STORAGE Room Temperature in a dry place.

EXPIRATION DATE 10/2025 under the above conditions.

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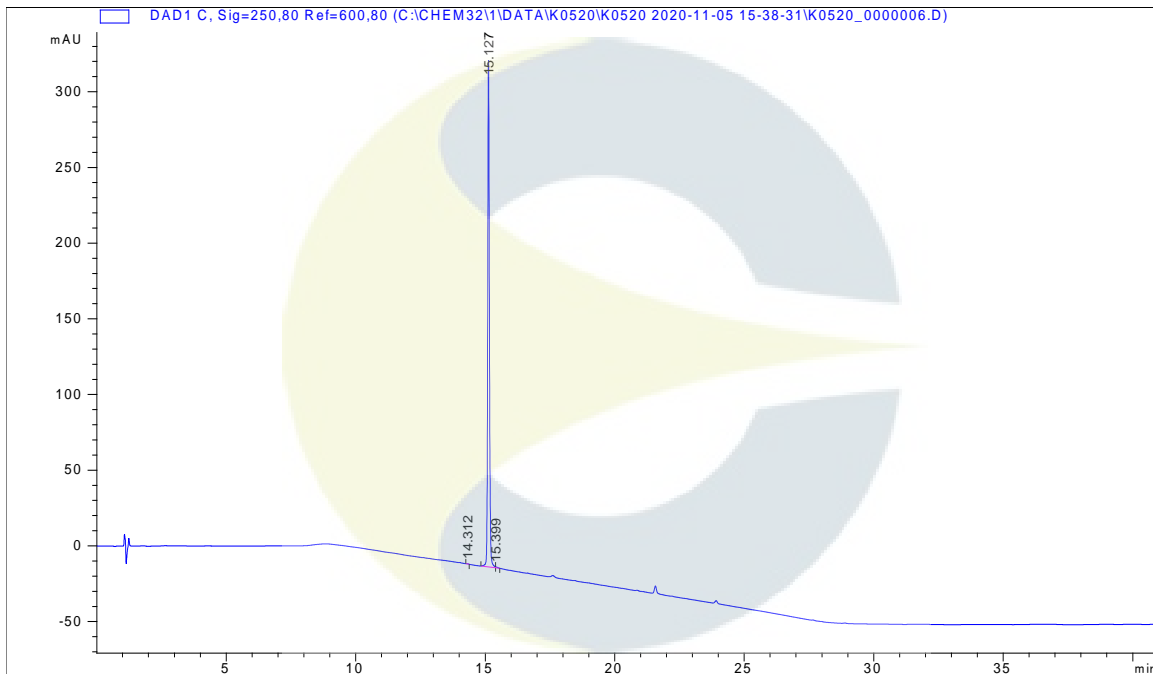
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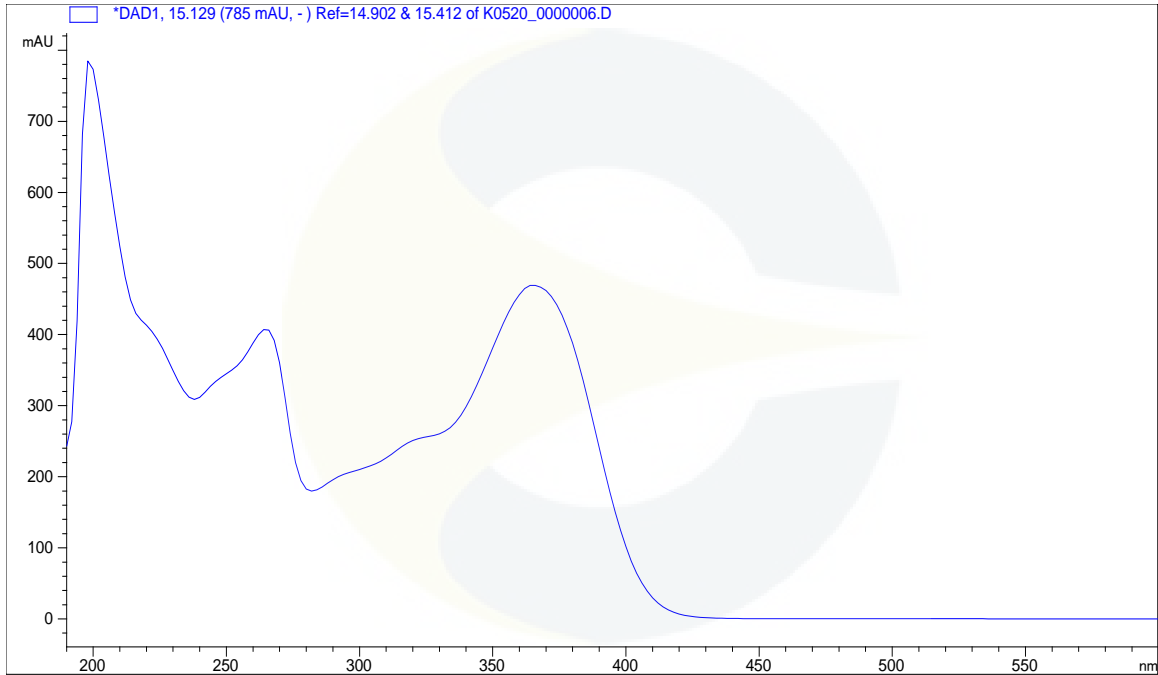
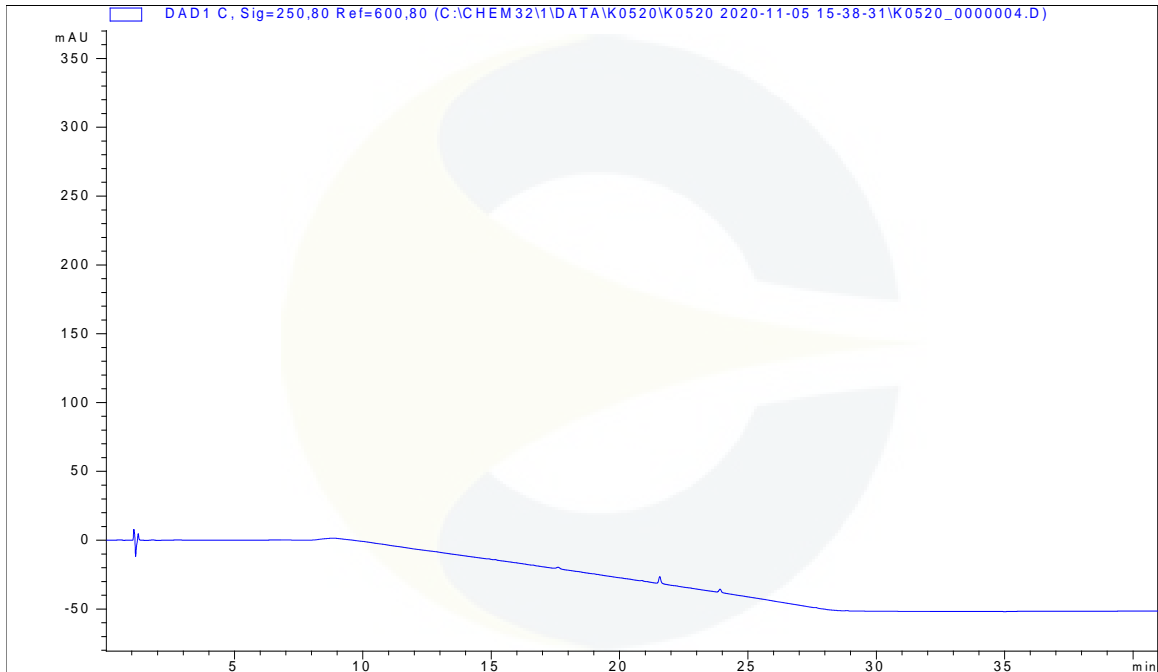
ANALYTICAL CONDITIONS

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 Ultrapure water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. Hold at 95% B for 15 minutes.
COLUMN TEMP.	60 °C
FLOW RATE	0.4 mL/minute
INJECTION VOL.	0.2 µL
INJECTION CONC.	1.0 mg/mL in Methanol
DETECTION	250 ± 40 nm

HPLC CHROMATOGRAM OF KAEMPFEROL (CDXA-12-8275)

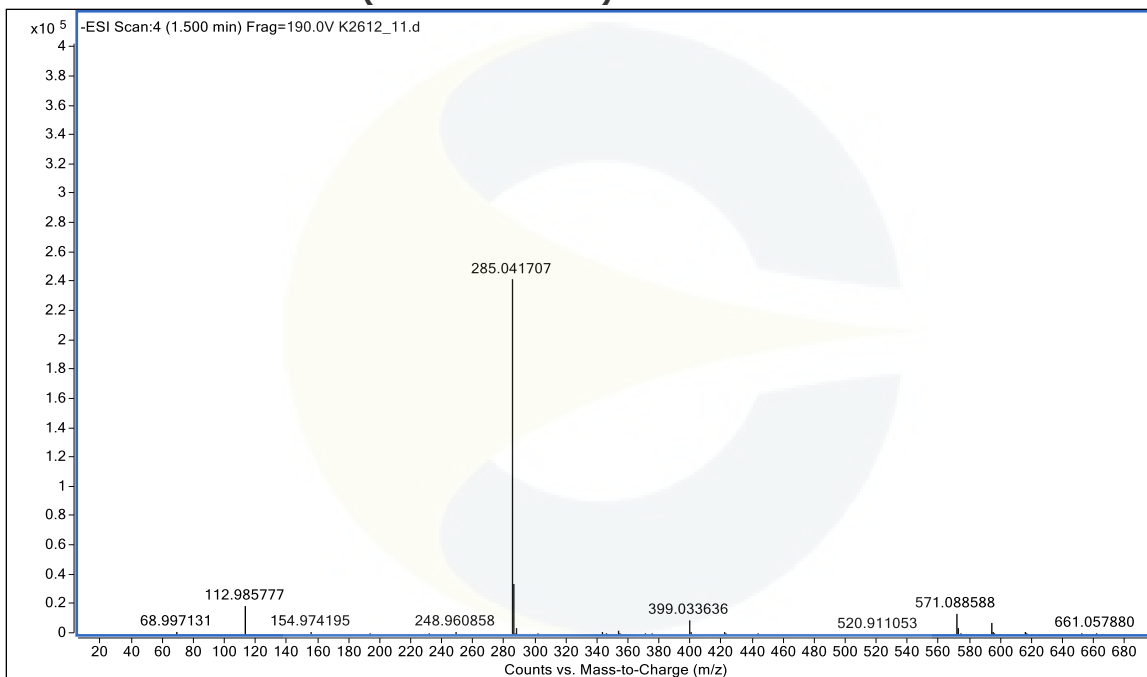


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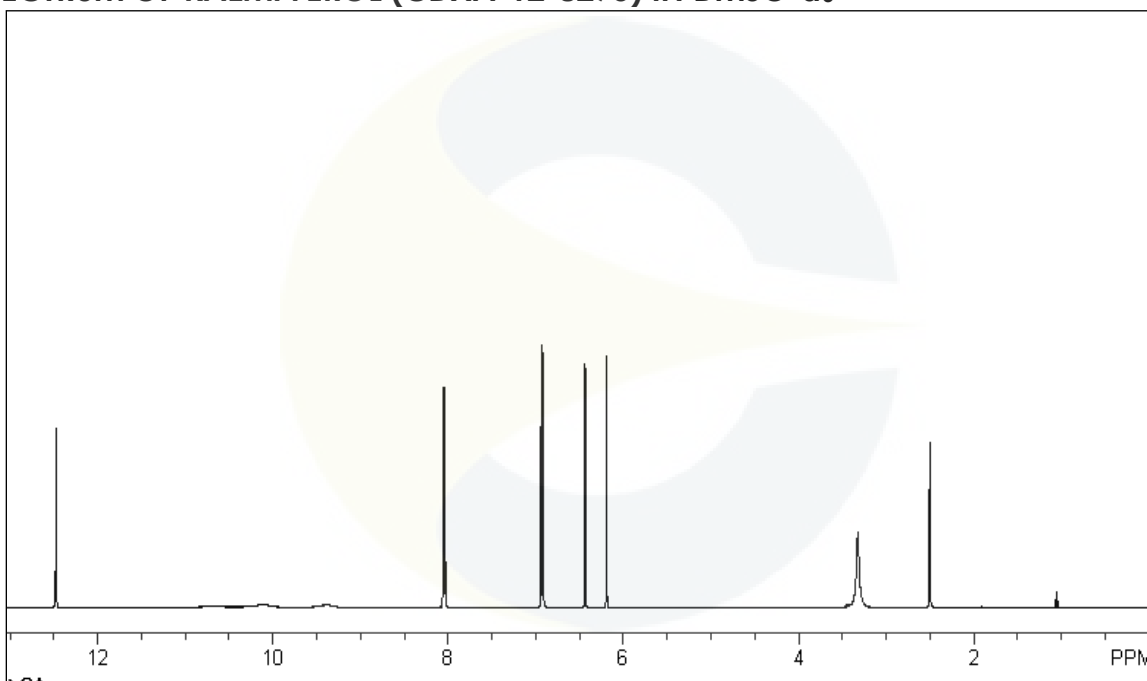
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UV SPECTRUM AT RT = 15.1 MINUTES

HPLC CHROMATOGRAM OF DILUENT BLANK


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MASS SPECTRUM OF KAEMPFEROL (CDXA-12-8275)



¹H-NMR SPECTRUM OF KAEMPFEROL (CDXA-12-8275) IN DMSO-d₆

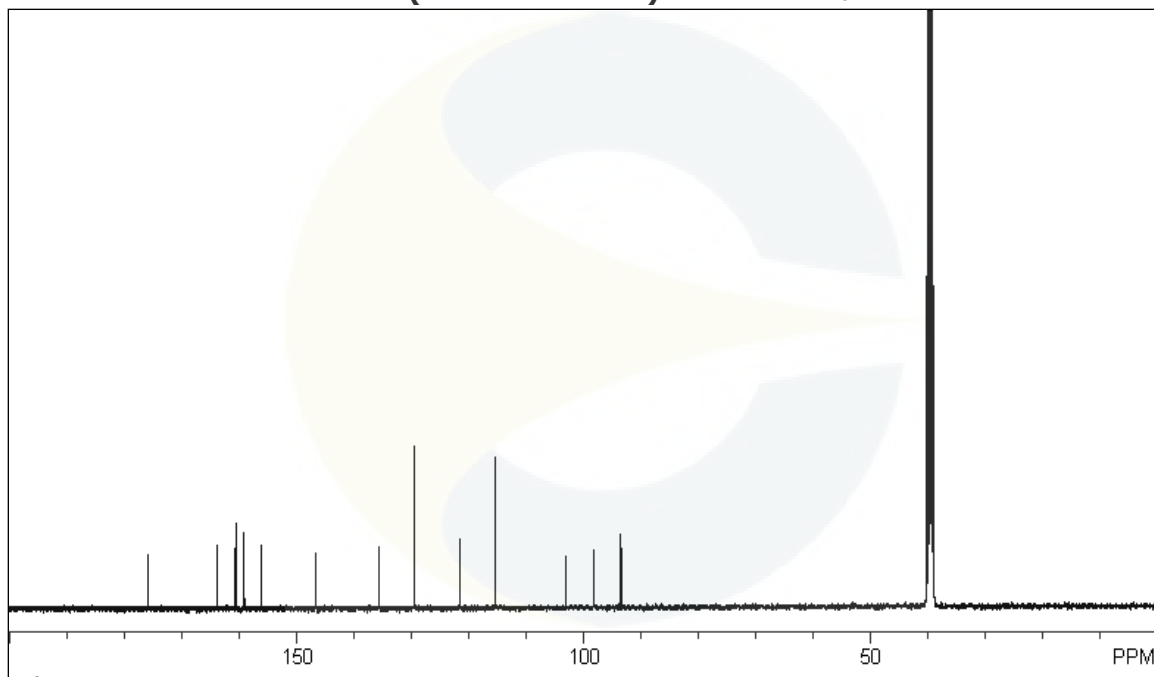


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¹³C-NMR SPECTRUM OF KAEMPFEROL (CDXA-12-8275) IN DMSO-d₆



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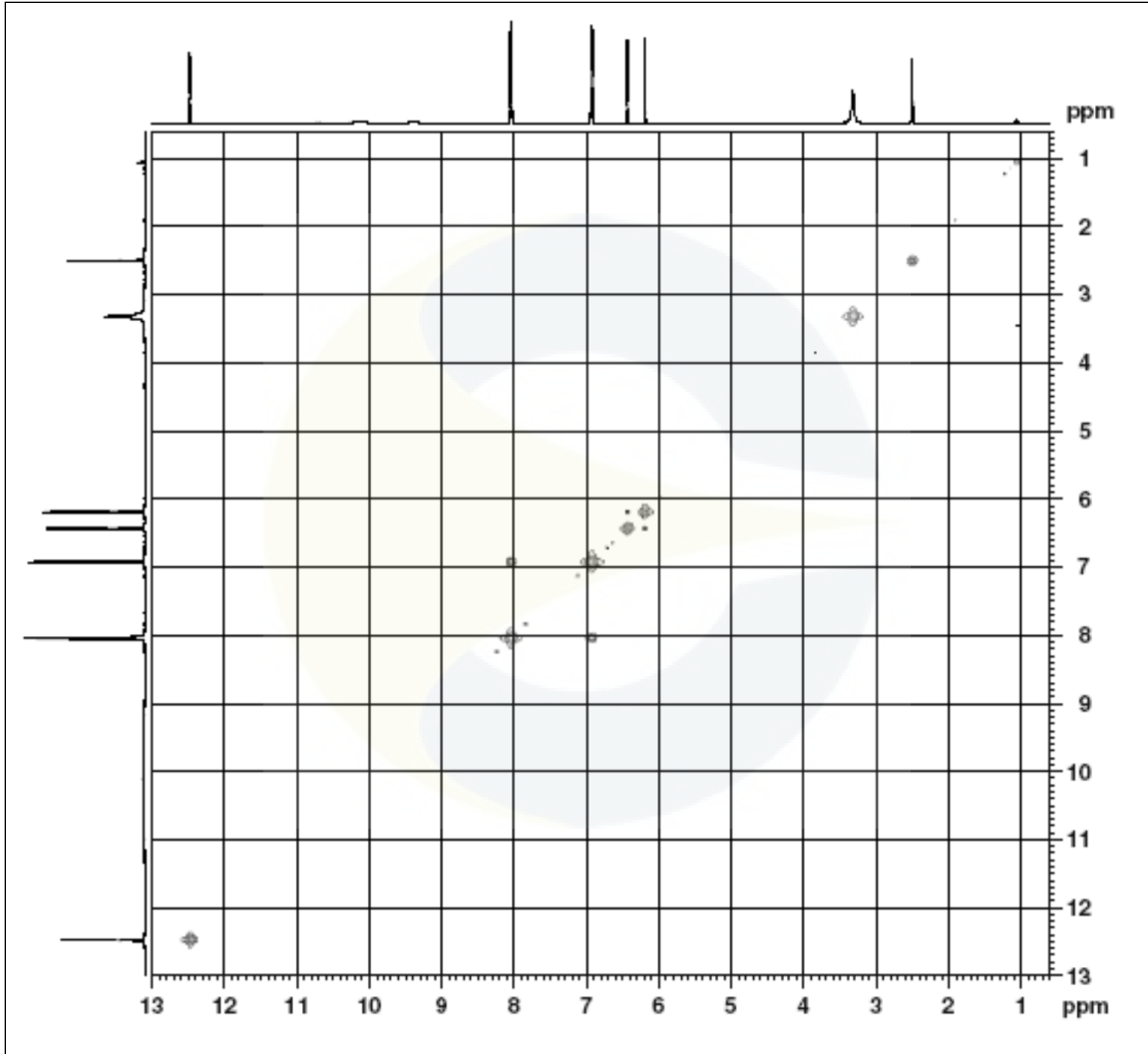
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COSY-NMR SPECTRUM OF KAEMPFEROL (CDXA-12-8275) IN DMSO-*d*₆

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	01/18/2013	New report, AHP upgrade.
01	11/10/2016	Passed re-evaluation by HPLC, KF. Updated expiration date and melting point.
02	11/16/2020	Passed re-evaluation by HPLC, KF. Updated the template, analytical results, analytical conditions, chromatograms, and expiration date. Removed melting point.

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