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| PRODUCT NAME | Secoisolariciresinol diglucoside | Structure |
|-----------------------|---|--|
| PART NUMBER | 00019103 | |
| STANDARD TYPE | Primary (P) | OH OH |
| LOT NUMBER | 00019103-0668 | HO |
| REPORT NUMBER | CDXA-RSS-6512-01 | HO unin O contract O C |
| SAMPLE NUMBER | CDXA-15-0668 | но но |
| DATE OF SAMPLE | 01/27/2015 | но Бн |
| DATE OF RE-EVALUATION | 03/04/2019 | |
| DATE OF REPORT | 03/22/2019 | |
| CHEMICAL NAMES | 2,3-Bis[(4-hydroxy-3-methoxyphenyl)n glucopyranoside; Secoisolariciresinol | |

| | globop / allosido, |
|-----------------------|---|
| CHEMICAL FORMULA | C ₃₂ H ₄₆ O ₁₆ |
| MOLECULAR WEIGHT (MW) | 686.70 |
| CHEMICAL FAMILY | Lignans |
| CAS NUMBER | [158932-33-3] |
| EC#(EINECS) | NA |
| RTECS | EK0552000 |

ANALYTICAL RESULTS

| TEST | METHOD | SPECIFICATION | RESULT |
|------------------|------------------------|-----------------------|----------------------------|
| Adjusted Purity | NA | NA | 91.9% |
| HPLC | 99.1-04-1.0-000684 | NA | 99.9% |
| NMR | 99.1-CD-1.0-000122 | Conforms to structure | Conforms to structure |
| Mass Spectrum | Direct Inject, (+) ESI | Conforms | Conforms |
| Residual Solvent | 99.1-CD-7.0-000115 | NA | MeOH 0.1%; Heptane 0.1% |
| Water | 99.1-04-10.0-000094 | NA | 7.8% |
| Appearance | NA | NA | White powder |

91.9% IS BASED ON (100 - 0.2 SOLVENTS - 7.8 WATER) X 99.9% HPLC ADJUSTED PURITY:

STORAGE CONDITIONS

STORAGE +4 °C in a dry place.

EXPIRATION DATE

03/2024 under the above conditions.

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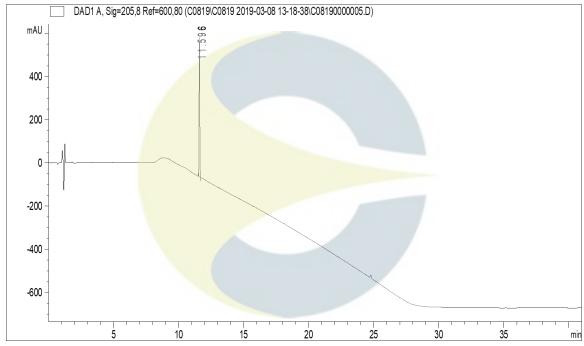
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ANALYTICAL CONDITIONS

| INSTRUMENT | AGILENT 1260 HPLC UV-VIS (DAD); AGILENT 6510 QTOF | |
|-----------------|---|--|
| COLUMN | Phenomenex Luna C18(2) 150 x 2.00 mm, 5 μ m 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. | 0° 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 SECOISOLARICIRESINOL DIGLUCOSIDE (CDXA-15-0668)



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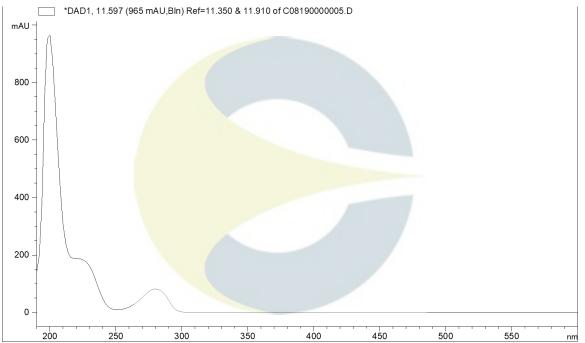
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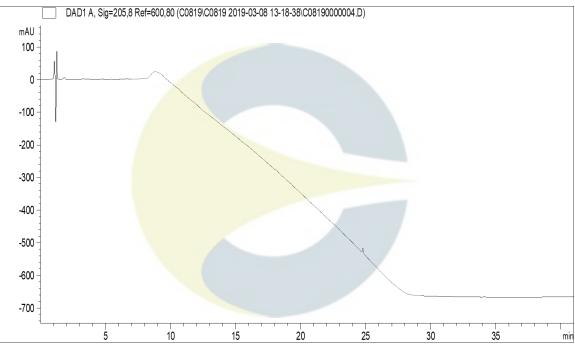


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UV SPECTRUM AT RT 11.6 MINUTES



HPLC CHROMATOGRAM OF DILUENT BLANK



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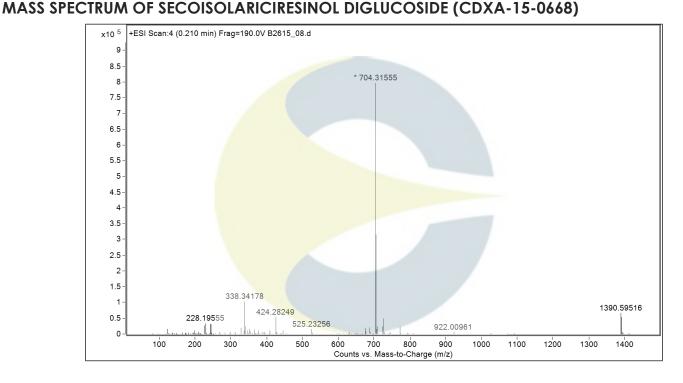
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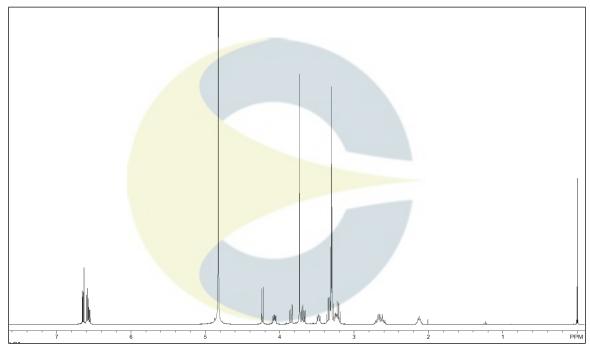


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¹H-NMR SPECTRUM OF SECOISOLARICIRESINOL DIGLUCOSIDE (CDXA-15-0668) IN CD₃OD



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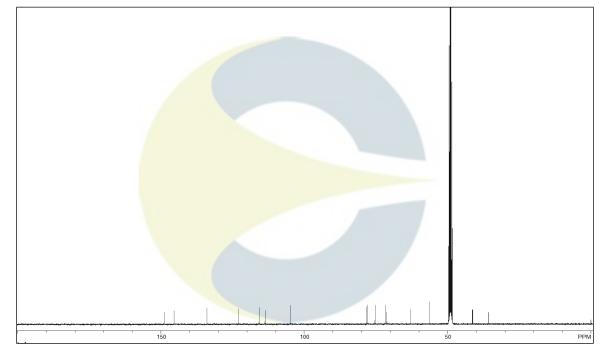
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¹³C-NMR SPECTRUM OF SECOISOLARICIRESINOL DIGLUCOSIDE (CDXA-15-0668) IN CD₃OD



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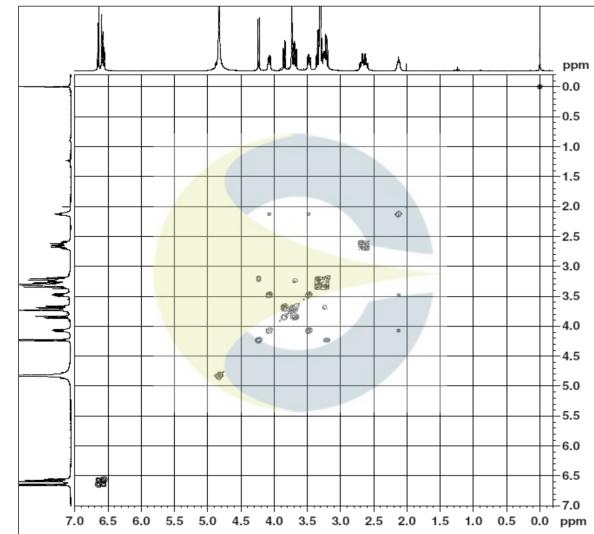
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COSY-NMR SPECTRUM OF SECOISOLARICIRESINOL DIGLUCOSIDE (CDXA-15-0668) IN CD₃OD

REVISION HISTORY

| <u>Revision History</u> | Date of Revision | Document/Changes |
|-------------------------|------------------|--|
| 00 | 03/03/2015 | New report |
| 01 | 03/22/2019 | Passed re-evaluation by HPLC and KF. Updated analytical results, analytical conditions, chromatograms, and expiration date. Added RTECS number, and removed melting point. |

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