

Supplementary material

# Rutamarin: Efficient liquid-liquid chromatographic isolation from *Ruta graveolens* L. and evaluation of its in vitro and in silico MAO-B inhibitory activity

Ewelina Kozioł <sup>1</sup>, Simon Vlad Luca <sup>2,3</sup>, Hale Gamze Ağalar <sup>4</sup>, Begüm Nurpelein Sağlık <sup>4</sup>, Fatih Demirci <sup>4,5</sup>, Laurence Marcourt <sup>6</sup>, Jean-Luc Wolfender <sup>6</sup>, Krzysztof Józwiak <sup>7</sup>, Krystyna Skalicka-Woźniak <sup>1,\*</sup>

<sup>1</sup> Independent Laboratory of Natural Products Chemistry, Department of Pharmacognosy, Medical University of Lublin, 20-093 Lublin, Poland; ewelinakoziol@umlub.pl

<sup>2</sup> Department of Pharmacognosy, Grigore T. Popa University of Medicine and Pharmacy Iasi, 700115 Iasi, Romania; simon-vlad.v.luca@d.umfiasi.ro

<sup>3</sup> Biothermodynamics, TUM School of Life and Food Sciences Weihenstephan, Technical University of Munich, 85354 Freising, Germany

<sup>4</sup> Department of Pharmacognosy, Faculty of Pharmacy, Anadolu University, 26470 Eskisehir-Turkey; ecz.halegamze@gmail.com (H.G.A.); bnsaglik@anadolu.edu.tr (B.N.S.); demircif@gmail.com (F.D.)

<sup>5</sup> Faculty of Pharmacy, Eastern Mediterranean University, 99628 Famagusta, N. Cyprus

<sup>6</sup> Institute of Pharmaceutical Sciences of Western Switzerland, IPSWS, University of Geneva, CMU, 1211 Geneva 4, Switzerland; laurence.marcourt@unige.ch (L.M.); Jean-Luc.Wolfender@unige.ch (J.-L.W.)

<sup>7</sup> Department of Biopharmacy, Medical University of Lublin, 20-093 Lublin, Poland; krzysztof.jozwiak@umlub.pl

\* Correspondence: kskalicka@pharmacognosy.org

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## Supplementary File Content

**Figure S1.** Chromatograms of CCC separations rutamarin from a crude dichloromethane extract of *Ruta graveolens* L.

**Figure S2** MS/MS fragmentation patterns proposed for rutamarin

**Figure S3.** <sup>1</sup>H-NMR spectrum of rutamarin in CD<sub>3</sub>OD

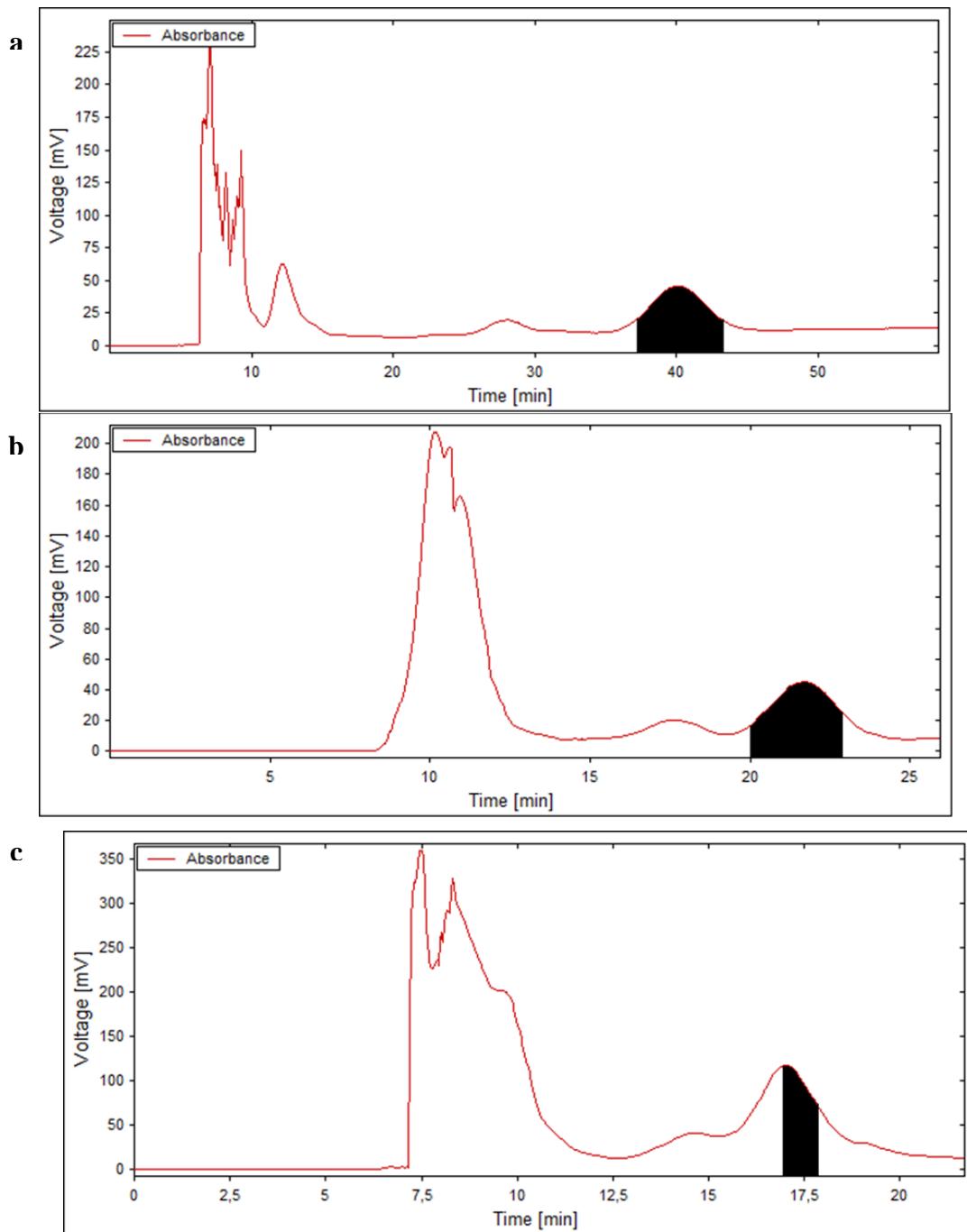
**Figure S4.** COSY NMR spectrum of rutamarin in CD<sub>3</sub>OD

**Figure S5.** <sup>13</sup>C-DEPTQ NMR spectrum of rutamarin in CD<sub>3</sub>OD at 151 MHz

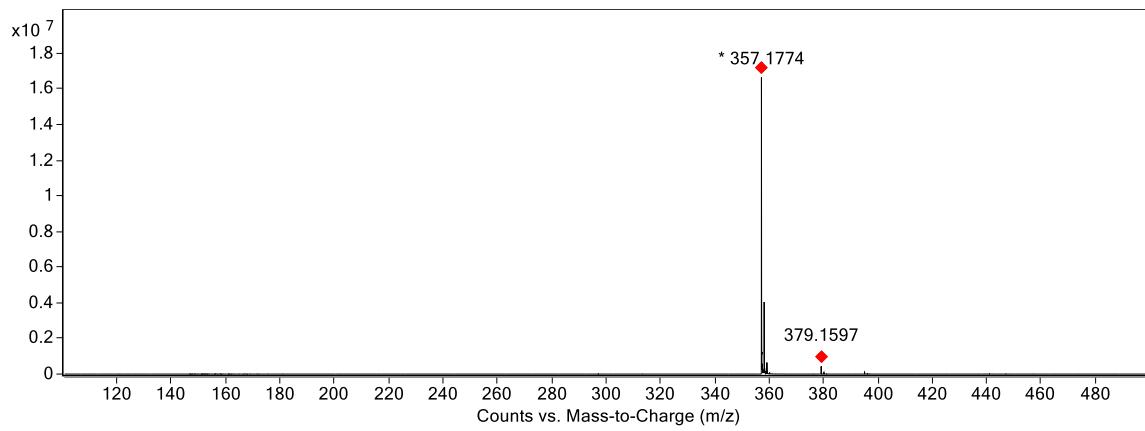
**Figure S6.** Edited-HSQC NMR spectrum of rutamarin in CD<sub>3</sub>OD

**Figure S7.** HMBC NMR spectrum of rutamarin in CD<sub>3</sub>OD

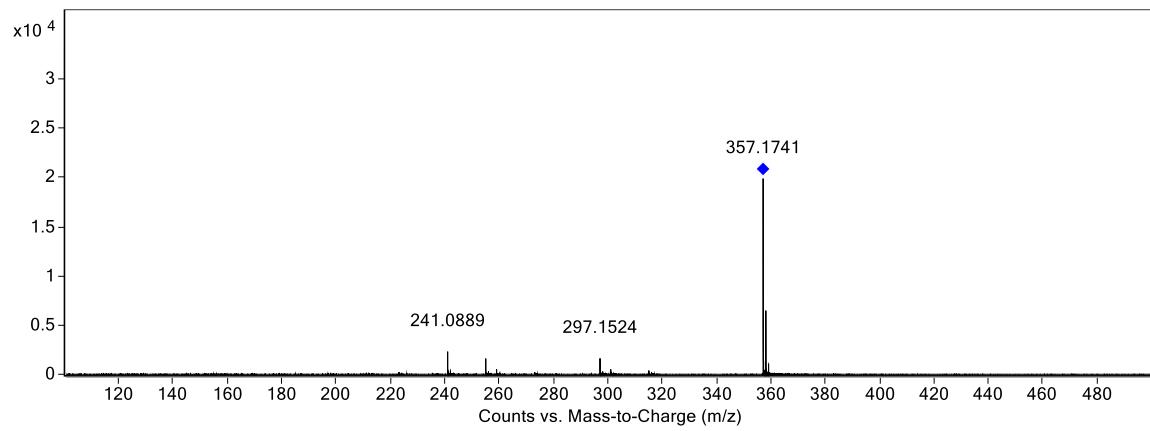
**Figure S8.** ROESY NMR spectrum of rutamarin in CD<sub>3</sub>OD



**Figure S1.** Chromatograms of CCC separations rutamarin from a crude dichloromethane extract of *Ruta graveolens* L. with (a) *n*-hexane/ethyl acetate/methanol/water (5/2/5/2, *v/v/v/v*) (b) *n*-hexane/ethyl acetate/methanol/water (3/1/3/1, *v/v/v/v*) and (c) *n*-hexane/ethyl acetate/methanol/water (4/1/4/1, *v/v/v/v*); upper phase as stationary phases (reversed-phase, head-to-tail mode, descending mode); flow-rate: 6 mL/min;  $V_{inj}$  = 6 mL;  $C_{inj}$  = 16.67 mg/mL;  $\omega$  = 1900 rpm,  $S_F$  = 80%; UV 335 nm.



**Figure S2a.** HRESIMS spectrum of rutamarin.



**Figure S2b.** MS/MS spectrum of rutamarin.

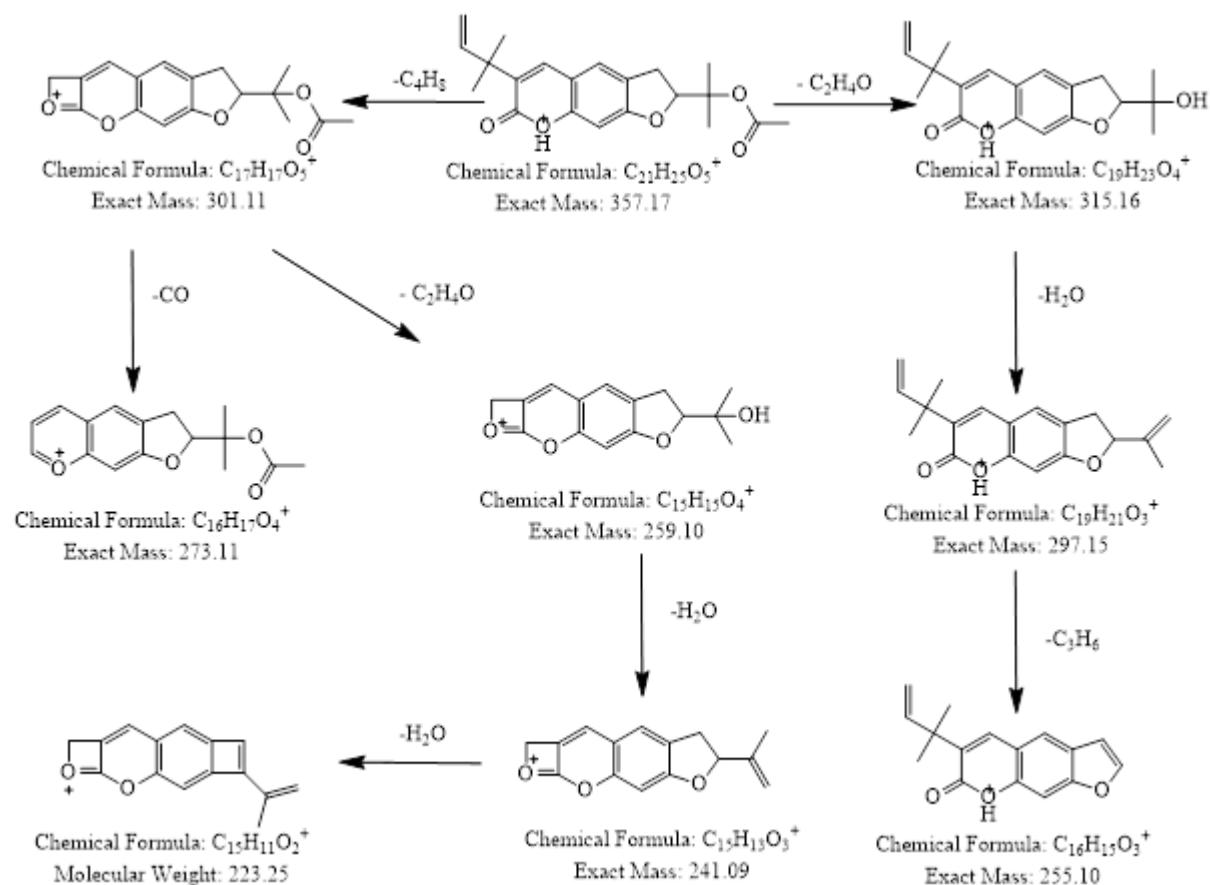
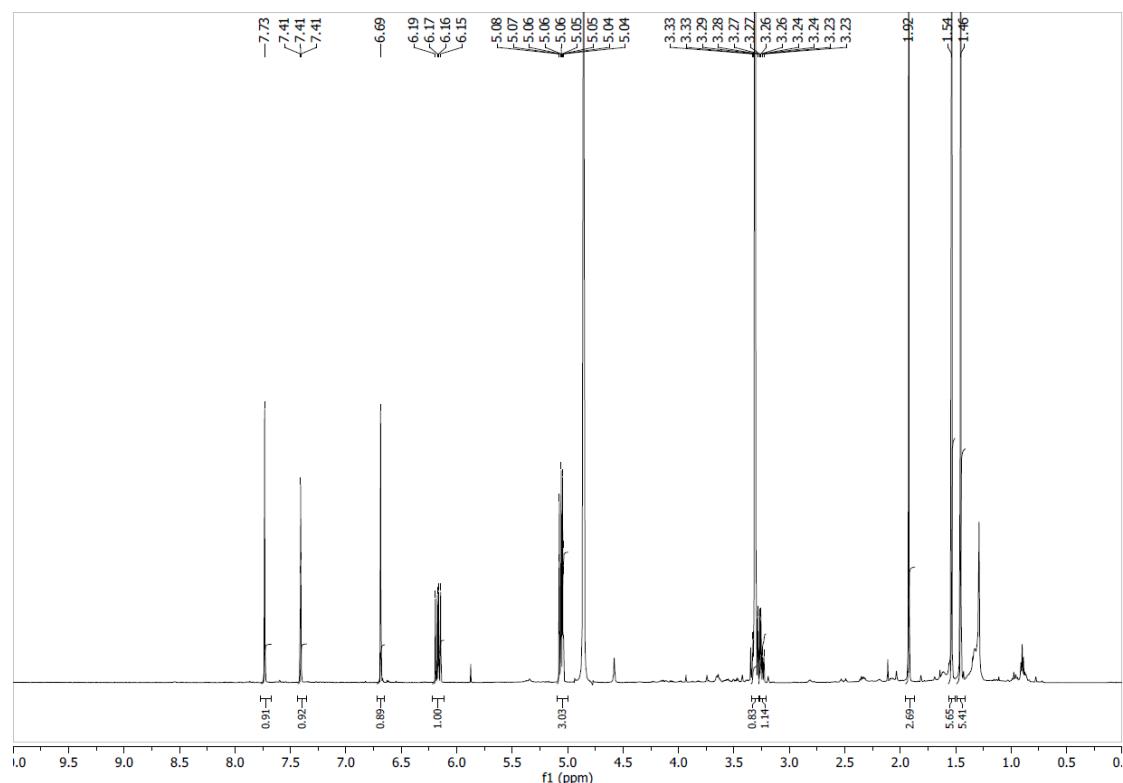
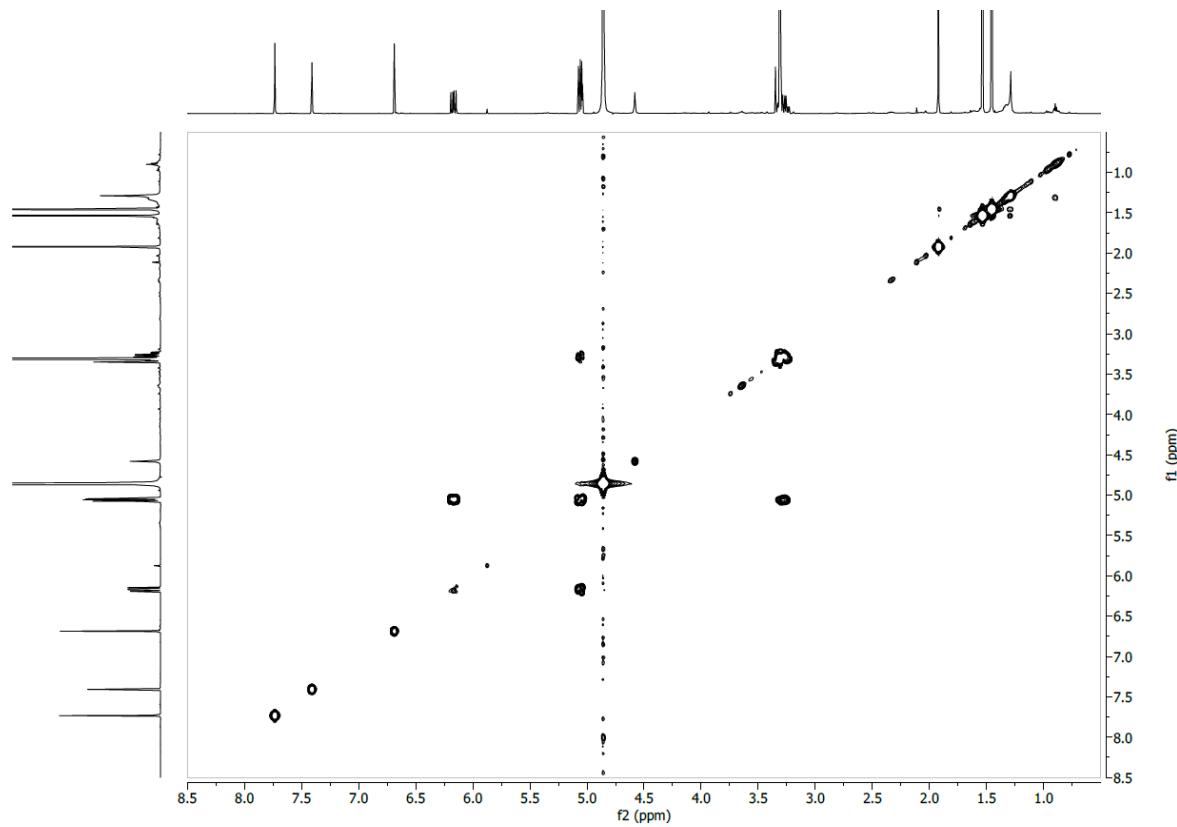
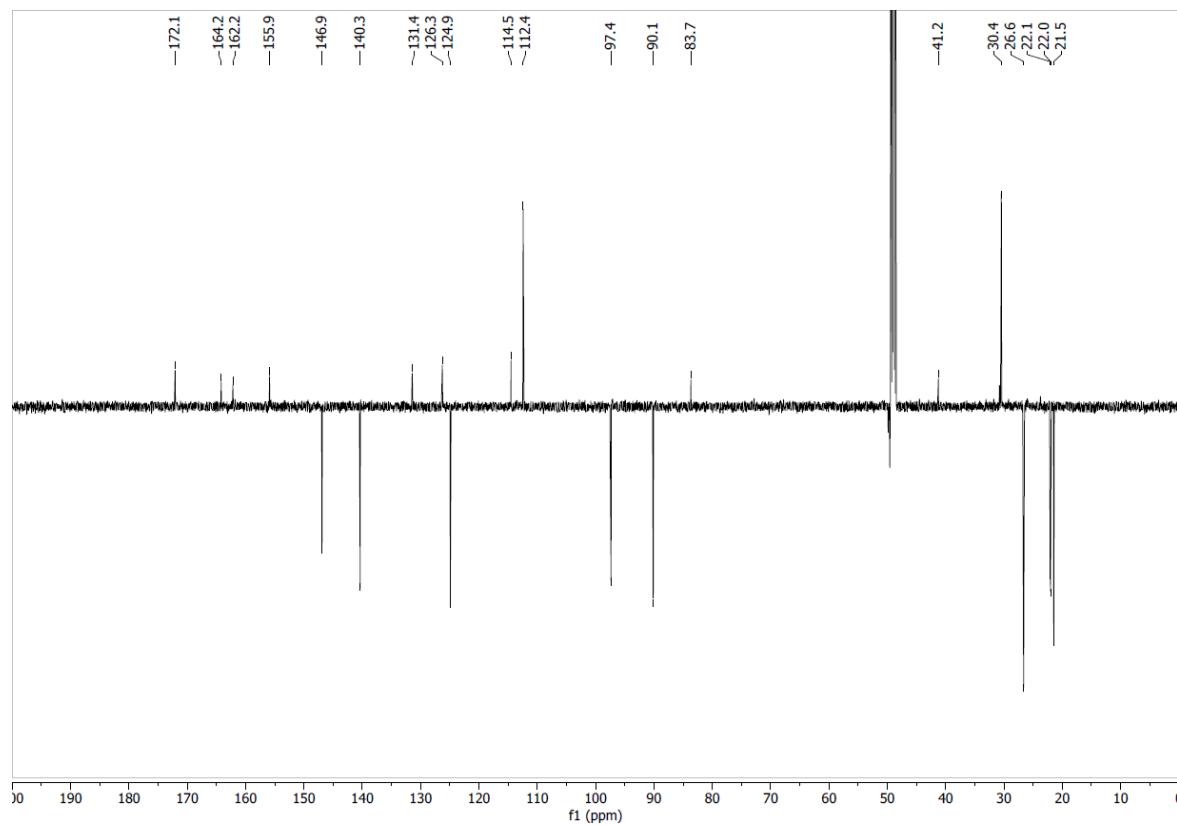


Figure S2c. MS/MS fragmentation patterns proposed for rutamarin.

Figure S3.  $^1\text{H}$ -NMR spectrum of rutamarin in  $\text{CD}_3\text{OD}$ .



**Figure S4.** COSY NMR spectrum of **rutamarin** in  $\text{CD}_3\text{OD}$ .



**Figure S5.**  $^{13}\text{C}$ -DEPTQ NMR spectrum of **rutamarin** in  $\text{CD}_3\text{OD}$  at 151 MHz.

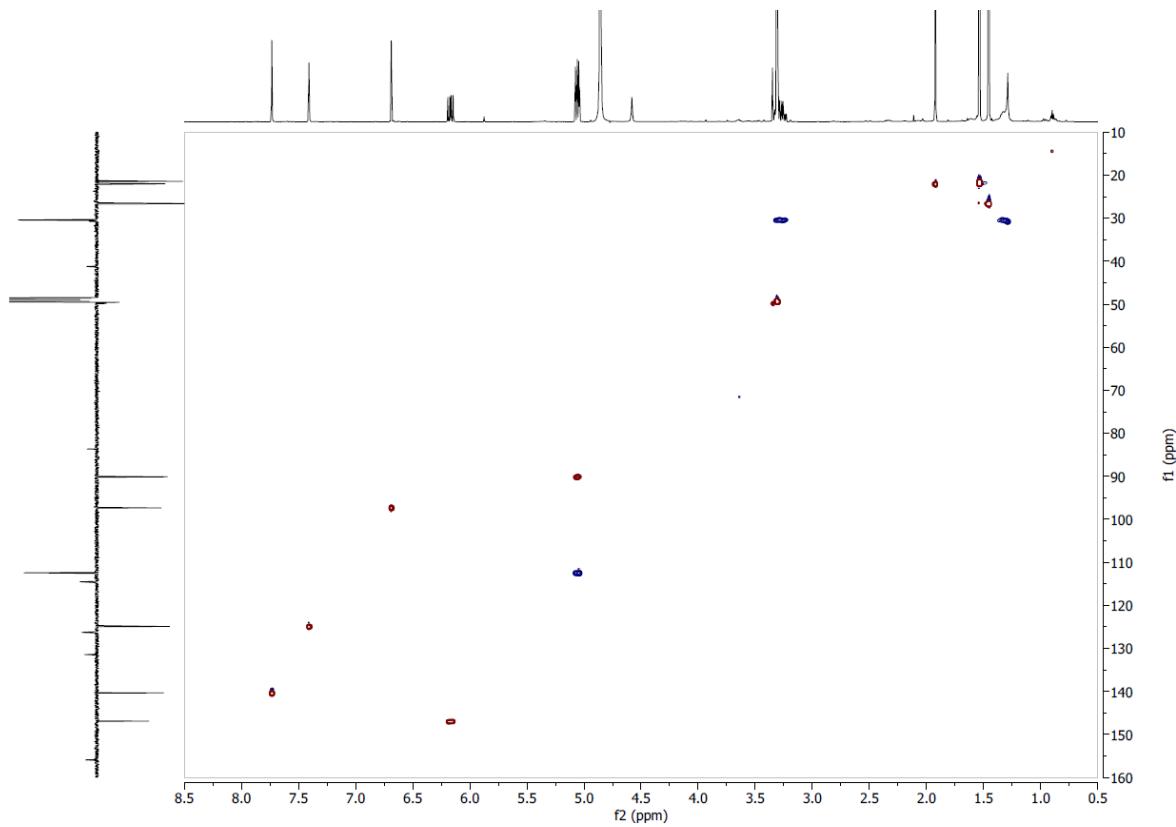


Figure S6. Edited-HSQC NMR spectrum of **rutamarin** in  $\text{CD}_3\text{OD}$ .

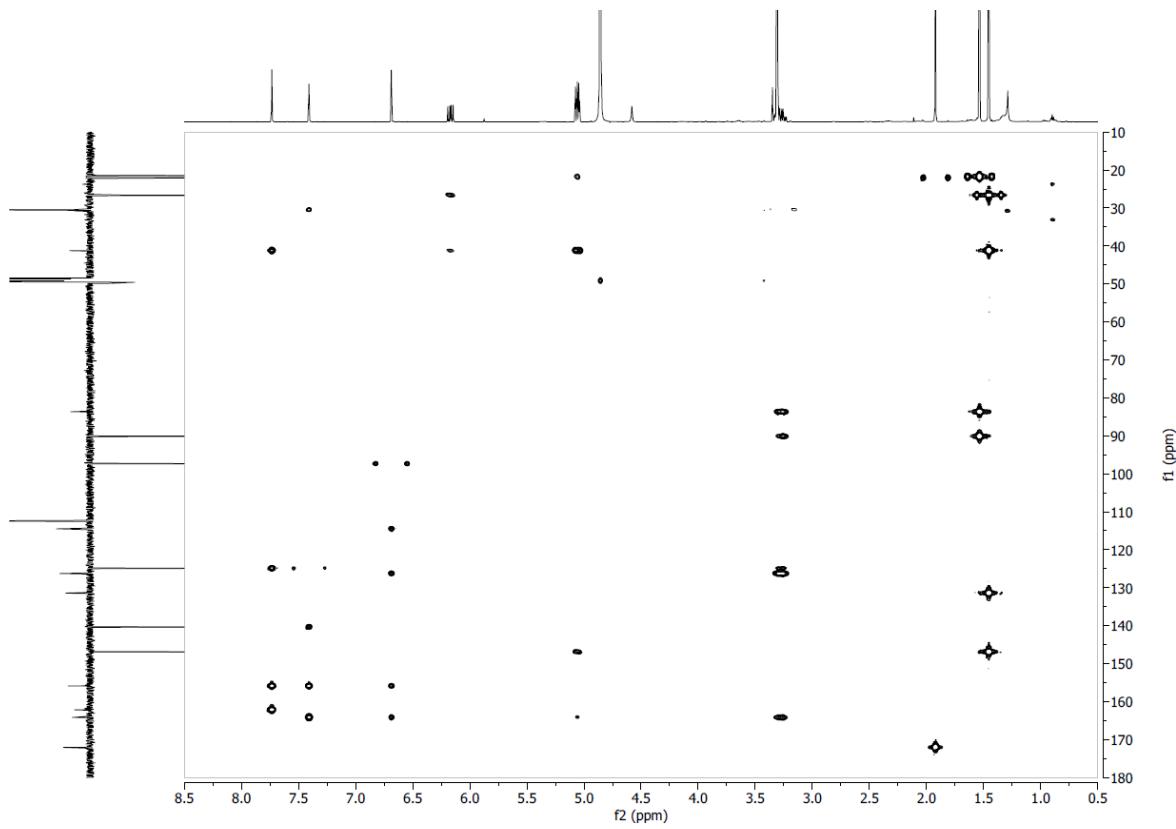
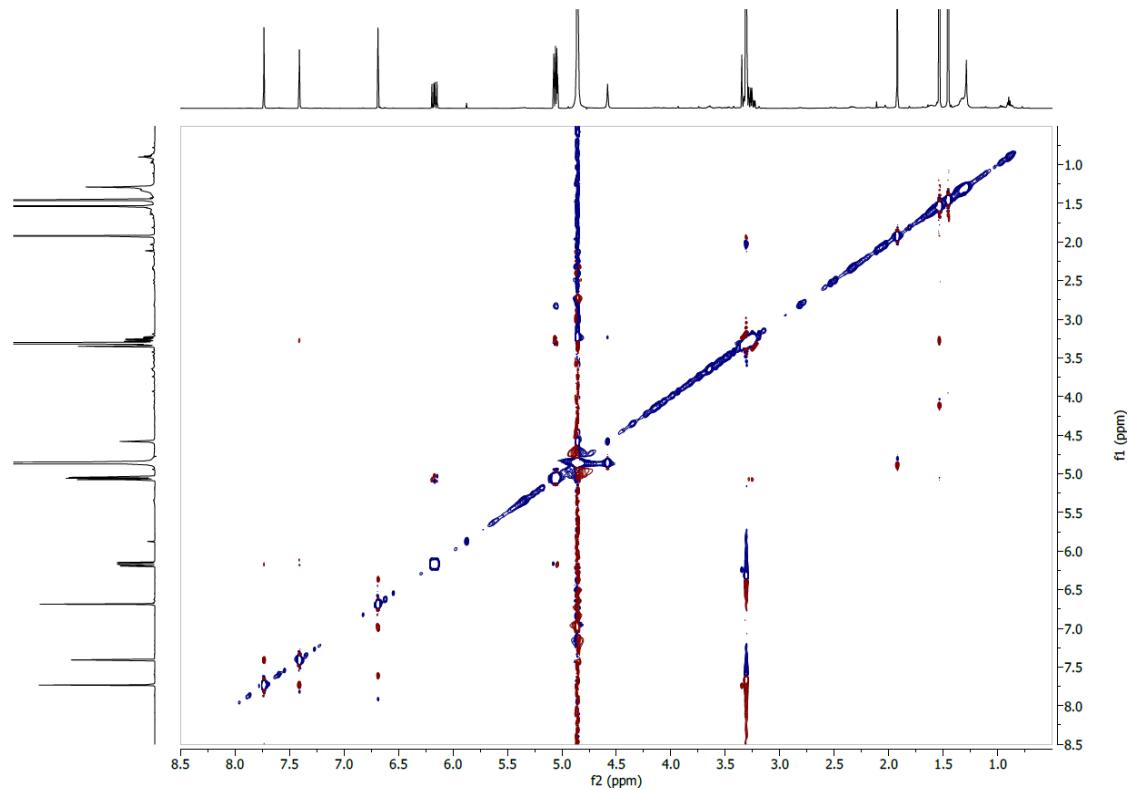


Figure S7. HMBC NMR spectrum of **rutamarin** in  $\text{CD}_3\text{OD}$ .



**Figure S8.** ROESY NMR spectrum of **rutamarin** in  $\text{CD}_3\text{OD}$ .



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