

## Supporting Information

*J.Chem. Metrol.* 13:2 (2019) 53-60

### Investigation the fatty acid profile of commercial black cumin seed oils and seed oil capsules: Application to real samples

Selin Isik <sup>1</sup>, Sinem Aslan Erdem\*<sup>2</sup> and Murat Kartal<sup>3,4</sup>

<sup>1</sup> Department of Analytical Chemistry, Faculty of Pharmacy, Near East University, 99138 Nicosia, Turkish Republic of Northern Cyprus

<sup>2</sup> Department of Pharmacognosy, Faculty of Pharmacy, Ankara University, 06560, Ankara, Türkiye

<sup>3</sup> Center of Education, Practice and Research in Phytotherapy, Bezmialem Vakif University, 34093, Fatih, Istanbul, Türkiye

<sup>4</sup> Faculty of Pharmacy, Bezmialem Vakif University, 34093, Fatih, Istanbul, Türkiye

Table of Contents	Page
<b>S1.</b> General Procedures of Method	2
<b>Table S1.</b> Gas Chromatography conditions of black cumin oils fatty acids	2
<b>Table S2.</b> Gas Chromatography temperature program	3
<b>S.2.</b> GC/MS Chromatograms of FAMES	3
<b>Figure S1:</b> GC/MS chromatogram of sampe NO1	3
<b>Figure S2:</b> GC/MS chromatogram of sample NO2	3
<b>Figure S3:</b> GC/MS chromatogram of sample NO3	3
<b>Figure S4:</b> GC/MS chromatogram of sample NO4	4
<b>Figure S5:</b> GC/MS chromatogram of sample NO5	4
<b>Figure S6:</b> GC/MS chromatogram of sample NO7	4

\* Corresponding author E-Mail: [sinemaslanerdem@yahoo.com](mailto:sinemaslanerdem@yahoo.com)

---

<b>Figure S7:</b> GC/MS chromatogram of sample NO8	4
<b>Figure S8:</b> GC/MS chromatogram of sample NO9	4
<b>Figure S9:</b> GC/MS chromatogram of sample NOC1	5
<b>Figure S10:</b> GC/MS chromatogram of sample NOC2	5
<b>Figure S11:</b> GC/MS chromatogram of sample NOC3	5
<b>Figure S12:</b> GC/MS chromatogram of sample NOC4	5
<b>Figure S13:</b> GC/MS chromatogram of sample NOC5	5
<b>Figure S14:</b> GC/MS chromatogram of sample NOC6	6
<b>Figure S15:</b> GC/MS chromatogram of sample NOC7	6
<b>Figure S16:</b> GC/MS chromatogram of sample NOC8	6
<b>Figure S17:</b> GC/MS chromatogram of sample NOC9	6
<b>Figure S18 :</b> GC/MS chromatogram of sample NOC10	6

---

### S.1. General Procedures of Method

**Table S1.** Gas Chromatography conditions of black cumin oils fatty acids

---

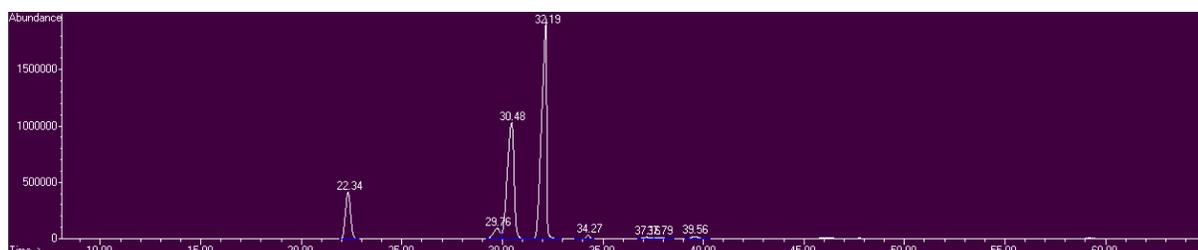
<b>GC Instrument</b>	Agilent 6890N Network GC system
<b>Dedector</b>	Agilent 5973 Network Mass Selective Detector (GC-MS)
<b>Column</b>	Agilent 19091N–136 (HP Innowax Capillary; 60,0 m x 0,25 mm x 0,25 µm)
<b>Carrier Gas</b>	Helium
<b>Flow Rate</b>	3.3 mL/min.
<b>Injection Volume</b>	1 µl
<b>Split Ratio</b>	20:1
<b>Injector Temperature</b>	250°C
<b>FID Temperature</b>	250°C
<b>Mass Spectrum Libraries</b>	Wiley and NIST

---

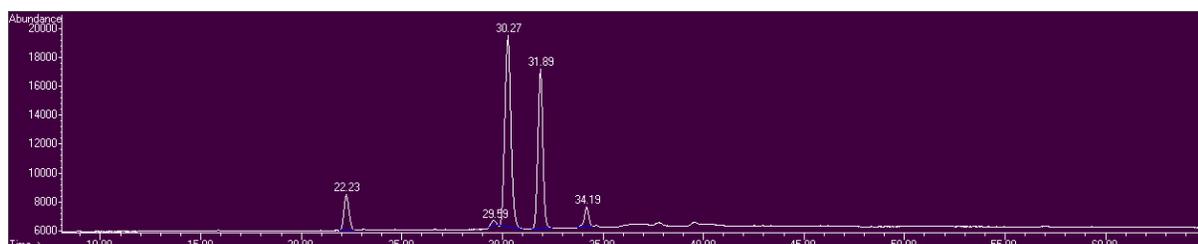
**Table S2.** Gas Chromatography temperature program

Temperature °C	Accrual	Hold Time (min.)	Total Time(min.)
100	-	1	1
170	10	-	8
215	5	5	22
240	10	10,5	35

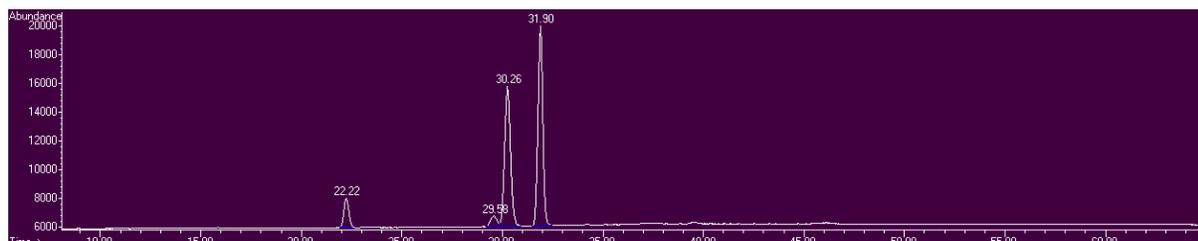
**S.2.** GC/MS Chromatograms of FAMES



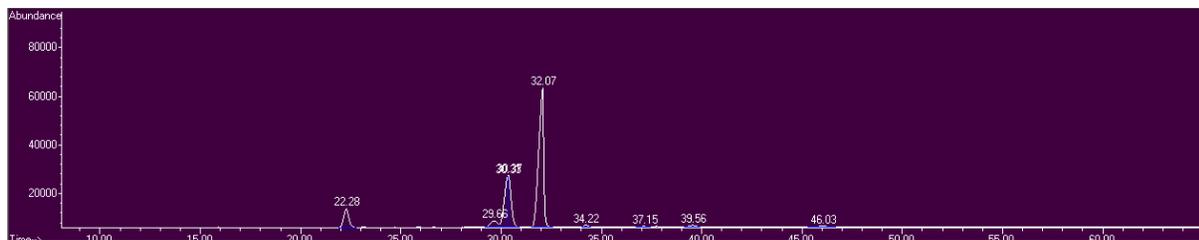
**Figure S1:** GC/MS chromatogram of sampe NO1



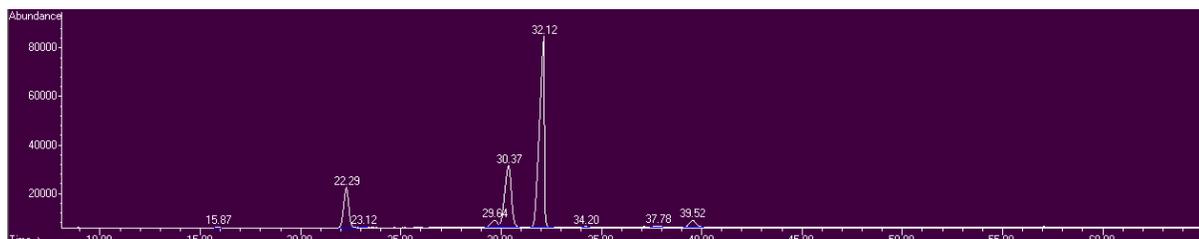
**Figure S2:** GC/MS chromatogram of sample NO2



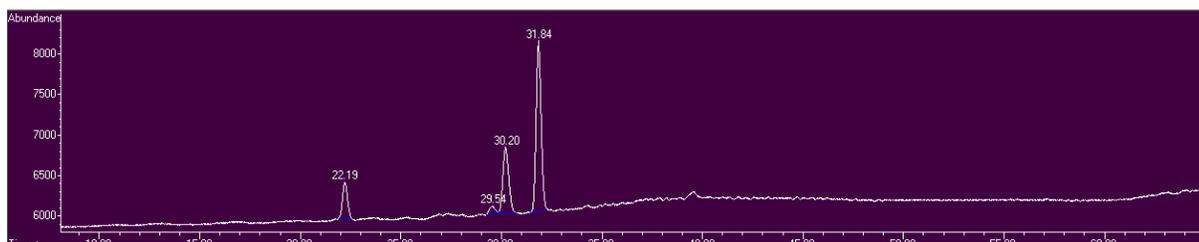
**Figure S3:** GC/MS chromatogram of sample NO3



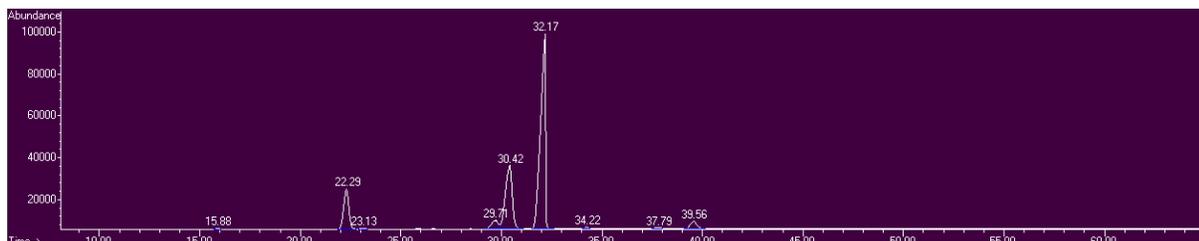
**Figure S4:** GC/MS chromatogram of sample NO4



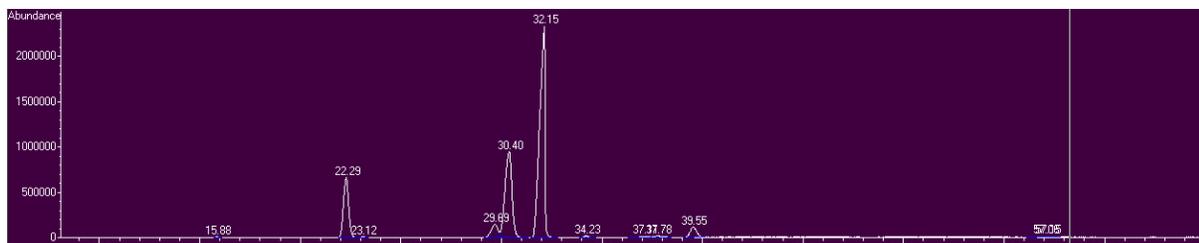
**Figure S5:** GC/MS chromatogram of sample NO5



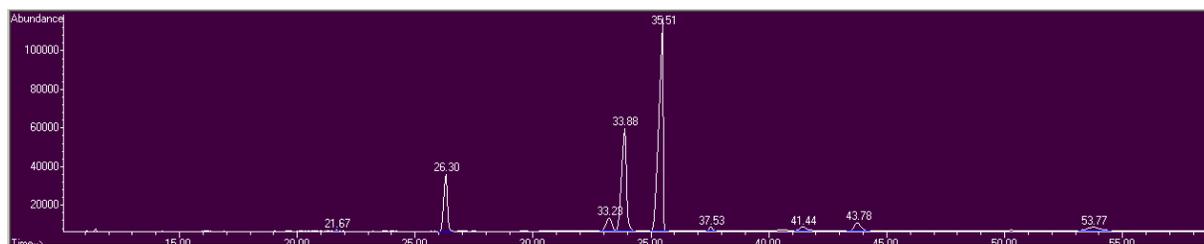
**Figure S6:** GC/MS chromatogram of sample NO7



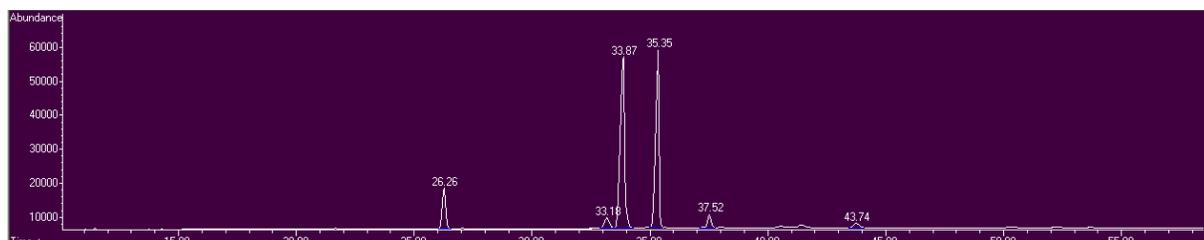
**Figure S7:** GC/MS chromatogram of sample NO8



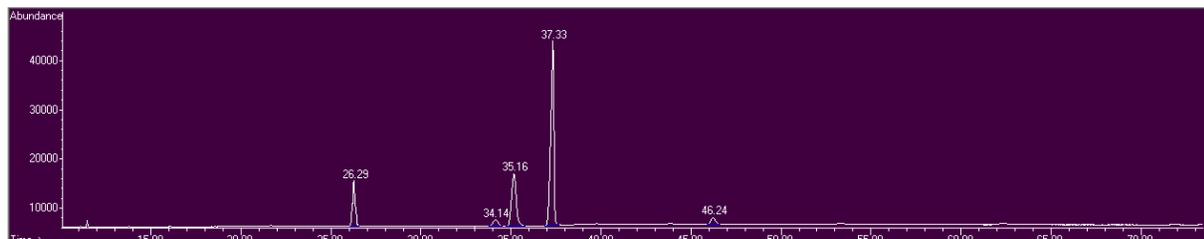
**Figure S8:** GC/MS chromatogram of sample NO9



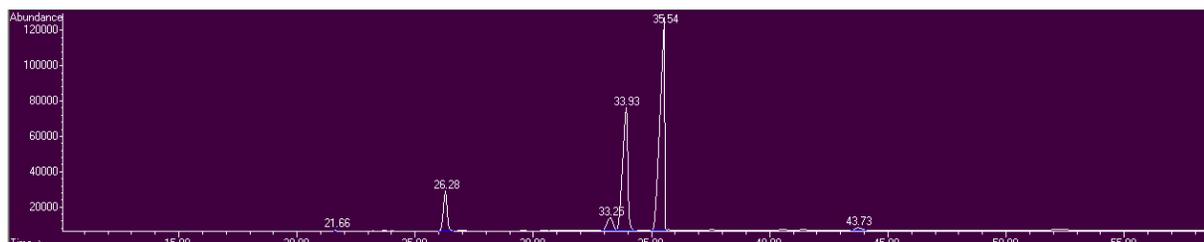
**Figure S9:** GC/MS chromatogram of sample NOC1



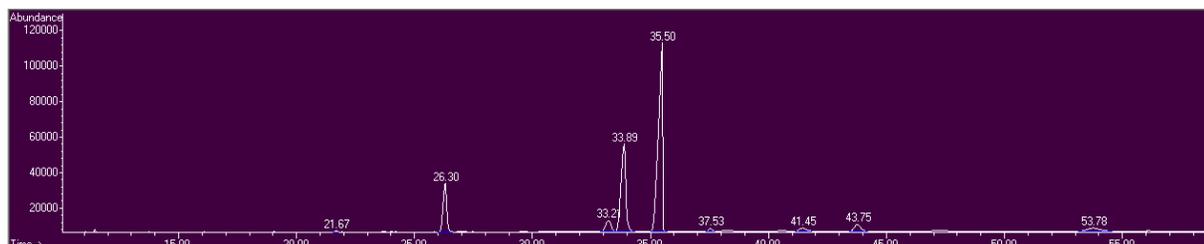
**Figure S10:** GC/MS chromatogram of sample NOC2



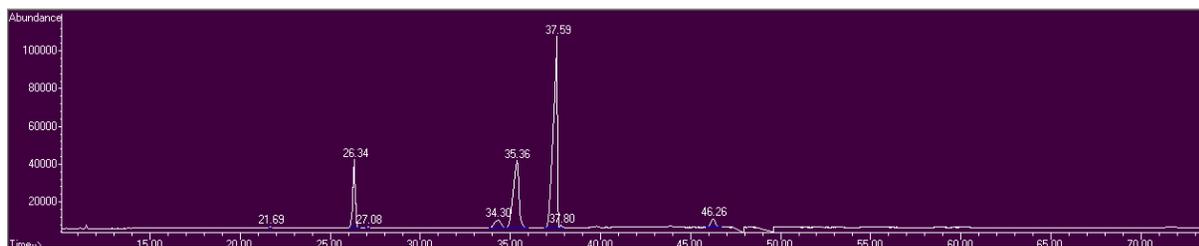
**Figure S11:** GC/MS chromatogram of sample NOC3



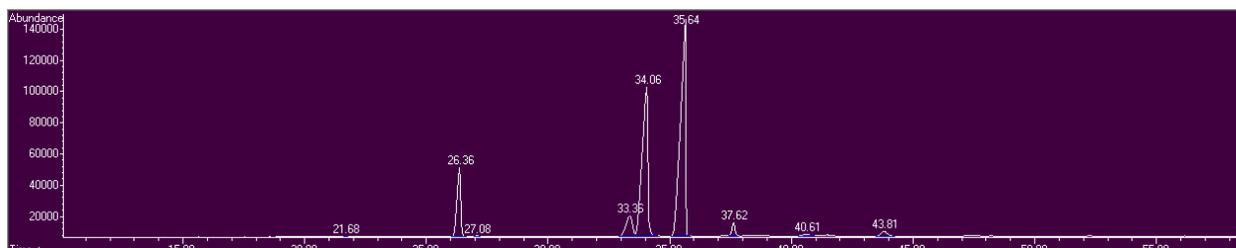
**Figure S12:** GC/MS chromatogram of sample NOC4



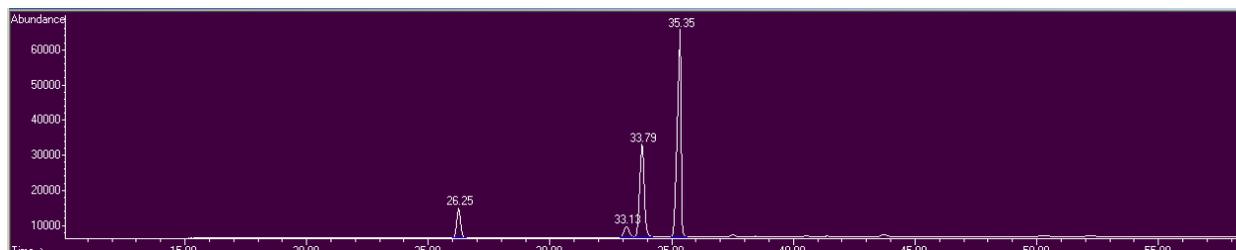
**Figure S13:** GC/MS chromatogram of sample NOC5



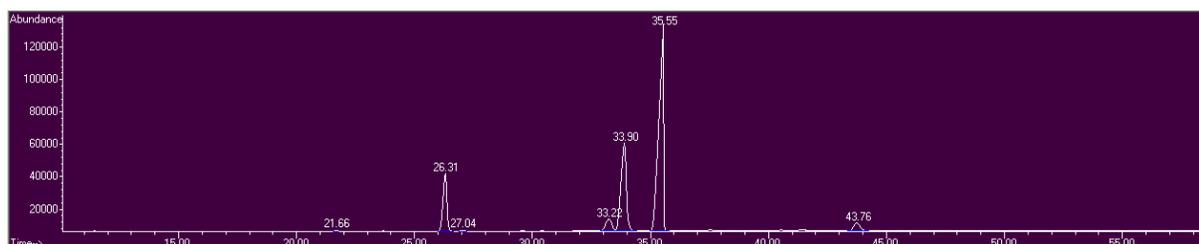
**Figure S14:** GC/MS chromatogram of sample NOC6



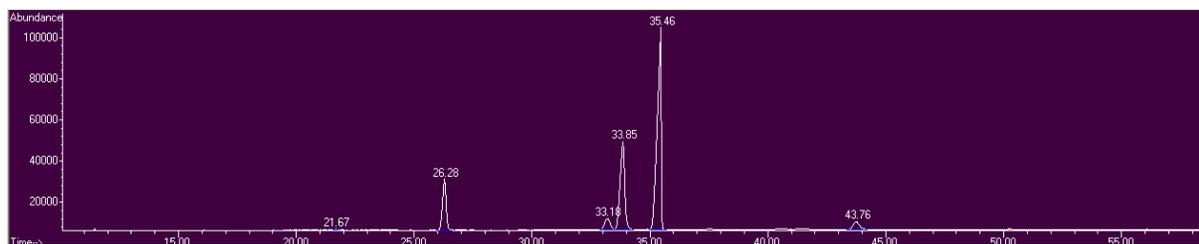
**Figure S15:** GC/MS chromatogram of sample NOC7



**Figure S16:** GC/MS chromatogram of sample NOC8



**Figure S17:** GC/MS chromatogram of sample NOC9



**Figure S18:** GC/MS chromatogram of sample NOC10