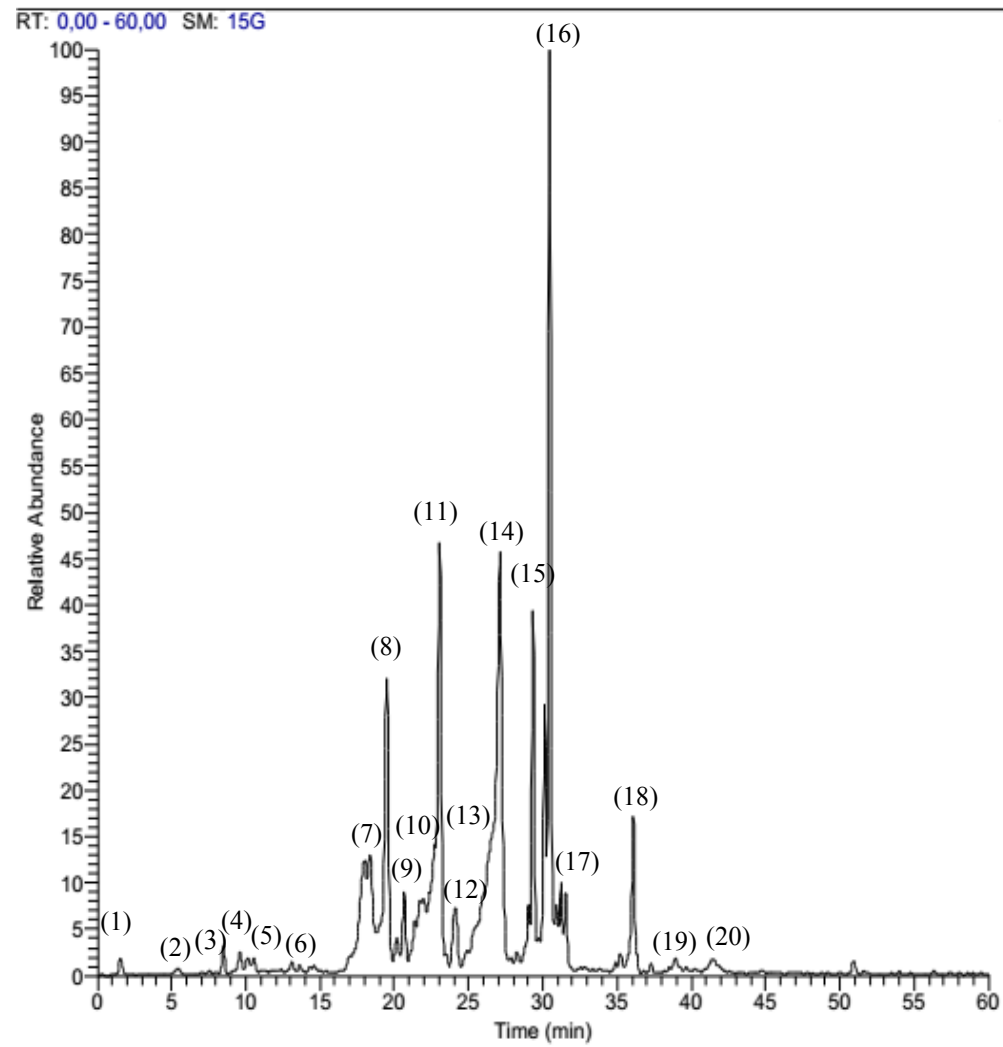


Supplementary Figure 1



**Supplementary Table I. Summary of the properties of the compounds detected in an *Ephedra alata* extract of by LC-MS/MS.**

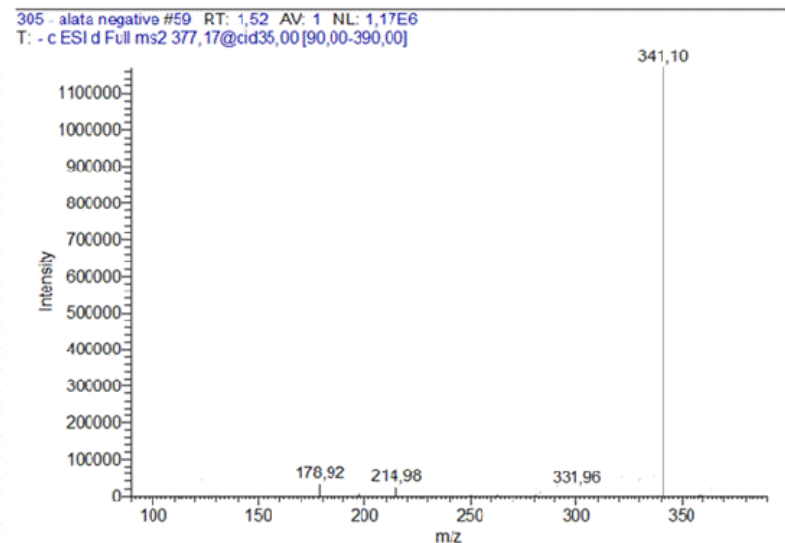
<b>Peak</b>	<b>RT (min)</b>	<b>[M+H]- (m/Z)</b>	<b>HPLC ms2</b>	<b>Identified compounds</b>
<b>1</b>	1.51	377	341, 215, 179, 332	Caffeic acid derivative
<b>2</b>	5.22	191	173, 111, 129	Citric acid
<b>3</b>	8.45	359	197, 182,167	Syringic acid hexoside
<b>4</b>	9.54	197	182, 167,153	Syringic acid
<b>5</b>	10.52	305	179, 219, 261, 105, 137,125	Gallocatechin
<b>6</b>	13.65	193	149, 178,134	Ferulic acid
<b>7</b>	18.39	625	463 ,301	Quercetin dihexoside
<b>8</b>	19.38	593	473, 503. , 353, 575 , 383	Vicenin-2
<b>9</b>	22.18	463	300	Quercetin-3-O-galactoside
<b>10</b>	22.43	609	489, 447	Isoorientin-4 -O-glucoside
<b>11</b>	23.21	641	479, 317	6-Hydroxyquercetin-3-O-di-hexose
<b>12</b>	24.86	463	301,343	Quercetin 3-O-glucoside
<b>13</b>	25.5	447	285	Luteolin-8-C-β-D-glucopyranoside (Orientin)
<b>14</b>	26.65	301	301	Quercetin
<b>15</b>	29.43	479	317	Myricetin hexoside
<b>16</b>	30.45	607	463 , 301, 505, 545	Quercetin 3-O-[6"-(3-hydroxyl-3-methylglutaryl)-β-D-galactoside]
<b>17</b>	30 .93	479	317,313 ,151 ,179	Myricetin-3-O-glucoside
<b>18</b>	36.13	756	593, 594	Unknown
<b>19</b>	38 .9	593	301,300, 447	Quercetin 3-O-rhamnoside 7-O-rhamnoside
<b>20</b>	42.9	577	431,285	Kaempferol-O-di-deoxyhexoside

**Supplementary Table II. Antibodies used in the study**

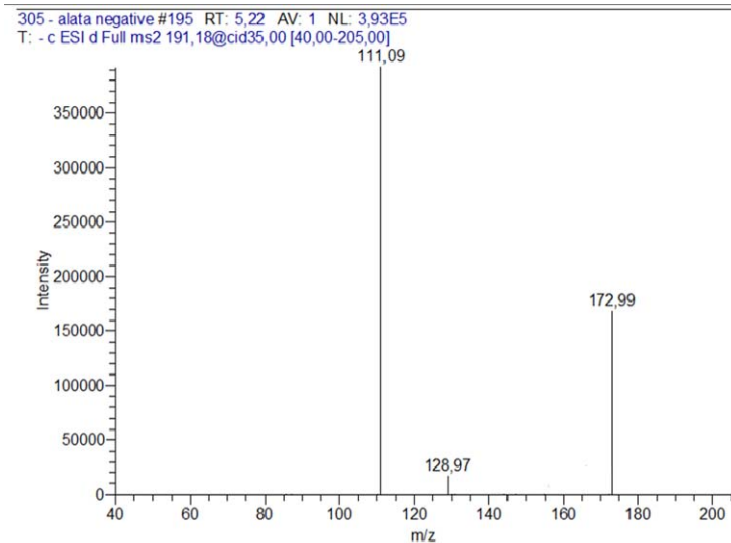
<b>Antibodies</b>	<b>Providers</b>	<b>Number</b>	<b>Isotype</b>	<b>Dilution</b>	<b>Molecular weight (kDa)</b>
<b>PARP</b>	Cell signaling	#9532	Rabbit	1:1000	116,89
<b>Procaspace3</b>	Cell signaling	#9661	Rabbit	1:1000	19,17
<b>Procaspace 7</b>	Cell signaling	#12827	Rabbit	1:1000	35,20
<b>Procaspace 8</b>	Cell signaling	#4927	Rabbit	1:1000	10,57
<b>Procaspace 9</b>	Cell signaling	#9508	Mouse	1:1000	49,37,35
<b>BOK</b>	Cell signaling	#4521	Rabbit	1:1000	22
<b>Bak</b>	Cell signaling	#12105	Rabbit	1:1000	25
<b>Bax</b>	Cell signaling	#14796	Rabbit	1:1000	20
<b>Bid</b>	Cell signaling	#2003	Rabbit	1:1000	22
<b>Bcl2</b>	Cell signaling	#3489	Rabbit	1:1000	26
<b>Bcl-xl</b>	Cell signaling	#2764	Rabbit	1:1000	30
<b>Smac/Diablo</b>	Cell signaling	#15801	Rabbit	1:1000	21
<b>Cytochrome c</b>	Cell signaling	#12963	Mouse	1:1000	14
<b>CoxIV</b>	Cell signaling	#11967	Rabbit	1:1000	17
<b>HSC70</b>	Cell signaling	#4872	Rabbit	1:1000	70
<b><math>\beta</math>-actin</b>	Cell signaling	#3700	Rabbit	1:1000	42
<b>Anti-mouse IgG HRP</b>	Sigma Aldrich	71045-M	Goat	1 : 3000	
<b>Anti-rabbit IgG HRP</b>	Cell signaling	#7076	Goat	1 : 3000	

## Supplementary Figure 2. ESI-MS/MS profiles of identified compounds

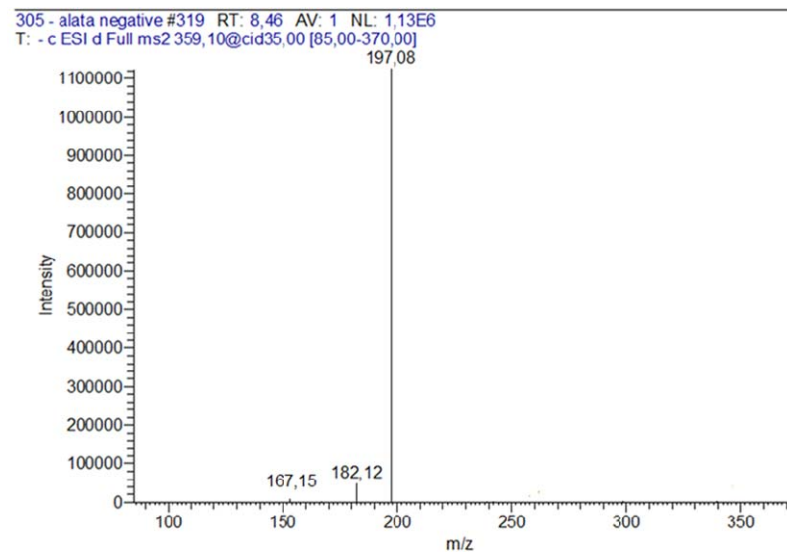
### Caffeic acid derivative at [M - H]<sup>-</sup> 377



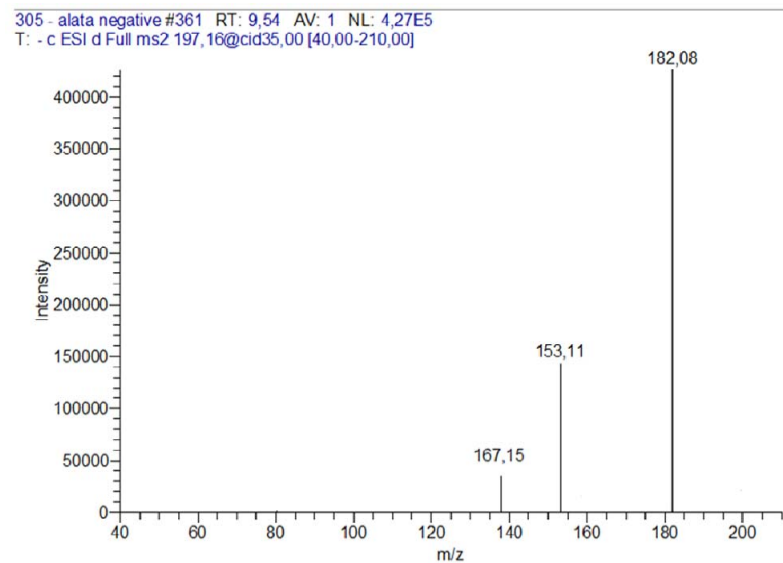
### Citric acid at [M - H]<sup>-</sup> 191



### Syringic acid hexoside at [M - H]<sup>-</sup> 359

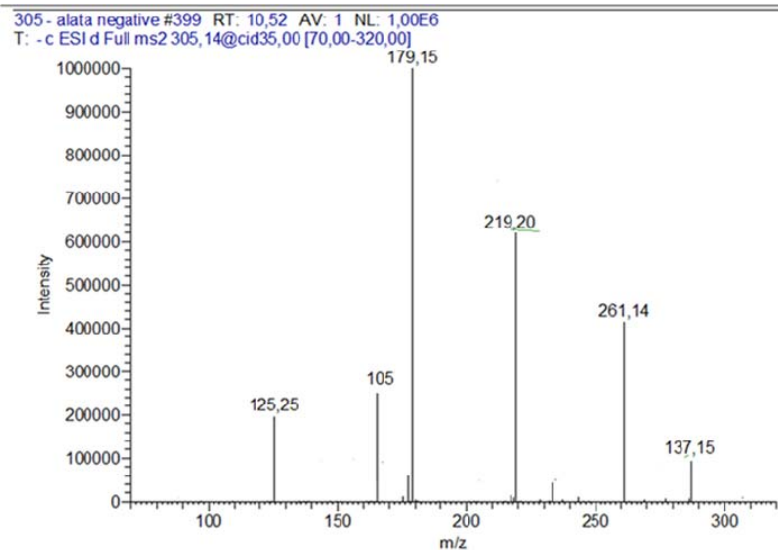


### Syringic acid at [M - H]<sup>-</sup> 197

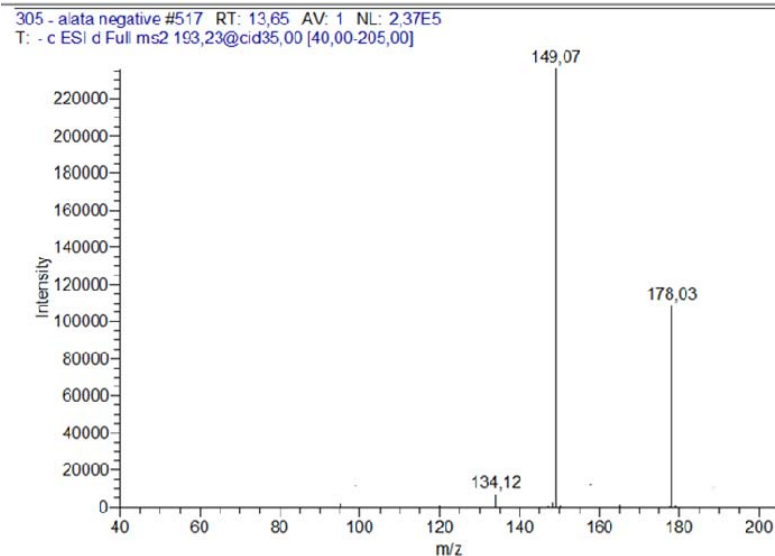


## Supplementary Figure 2. ESI-MS/MS profiles of identified compounds-Continued

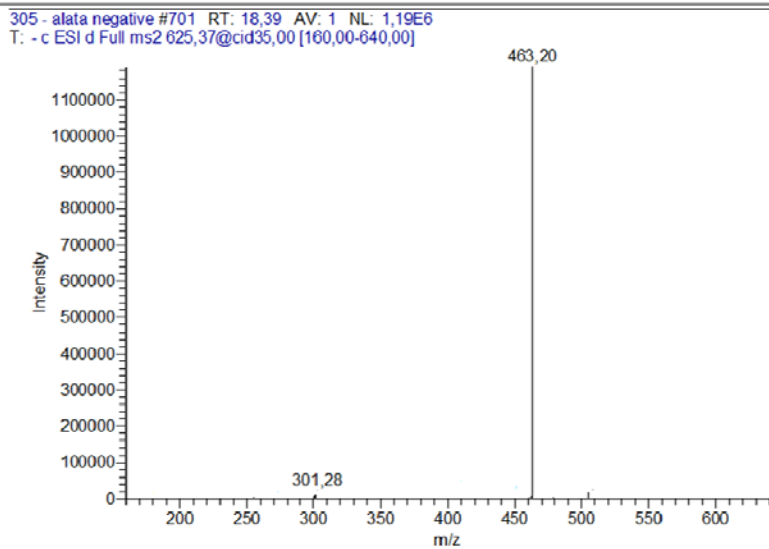
### Galocatechin at [M - H]<sup>-</sup> 305



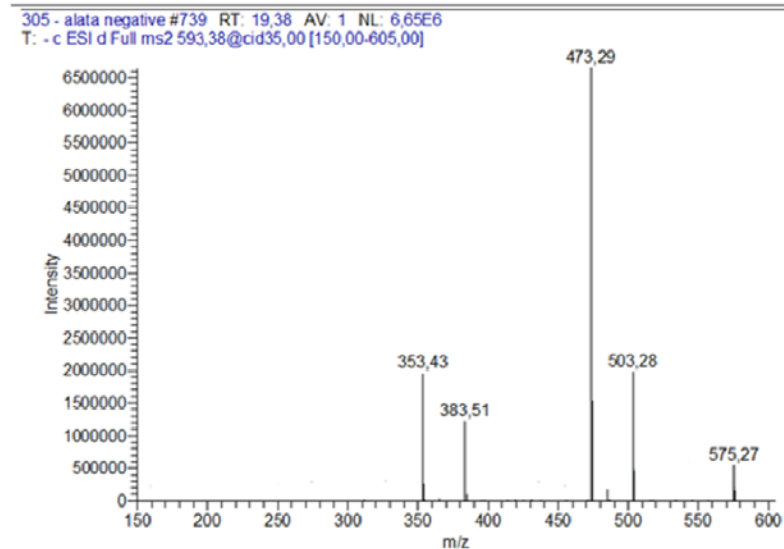
### Ferulic acid at [M - H]<sup>-</sup> 193



### Quercetin dihexoside at [M - H]<sup>-</sup> 625

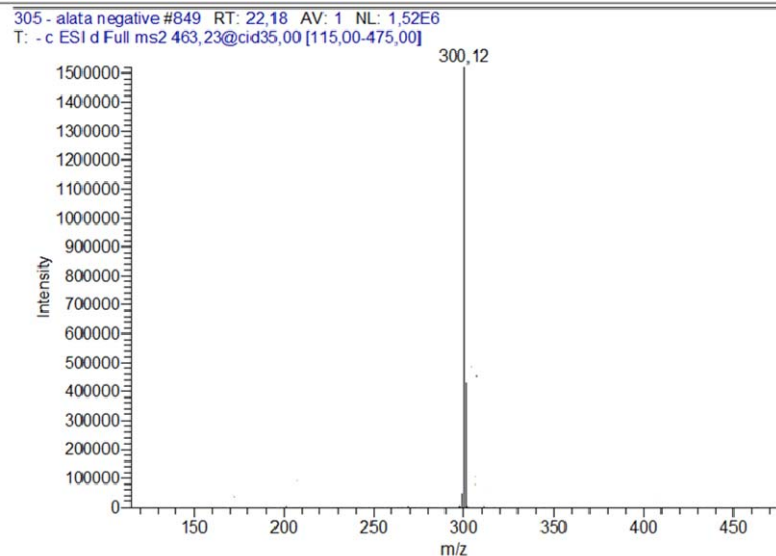


### Vicenin-2 at [M - H]<sup>-</sup> 593

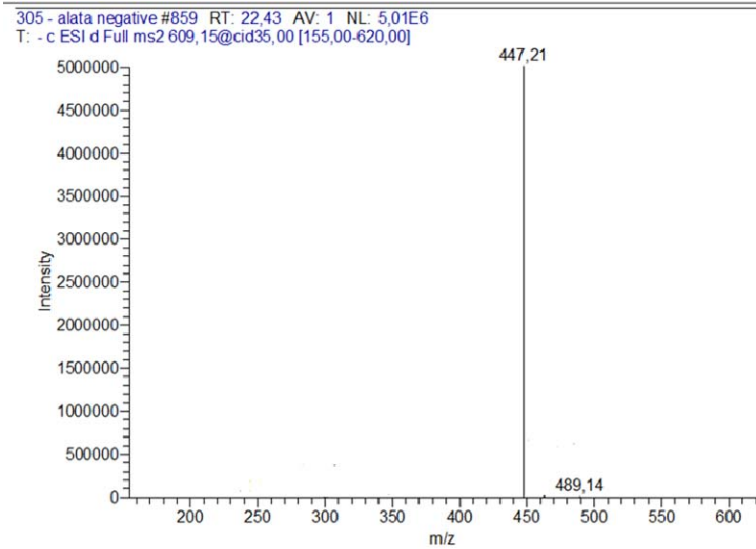


## Supplementary Figure 2. ESI-MS/MS profiles of identified compounds-Continued

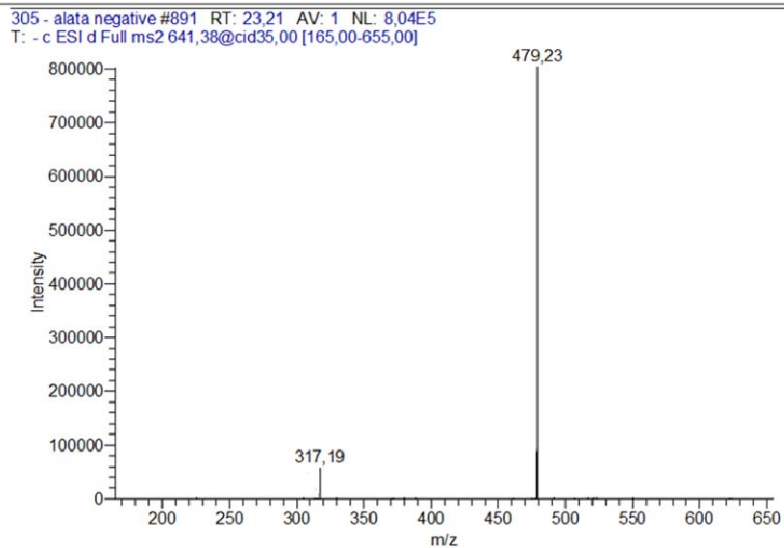
### Quercetin-3-O-galactoside at [M - H]<sup>-</sup> 463



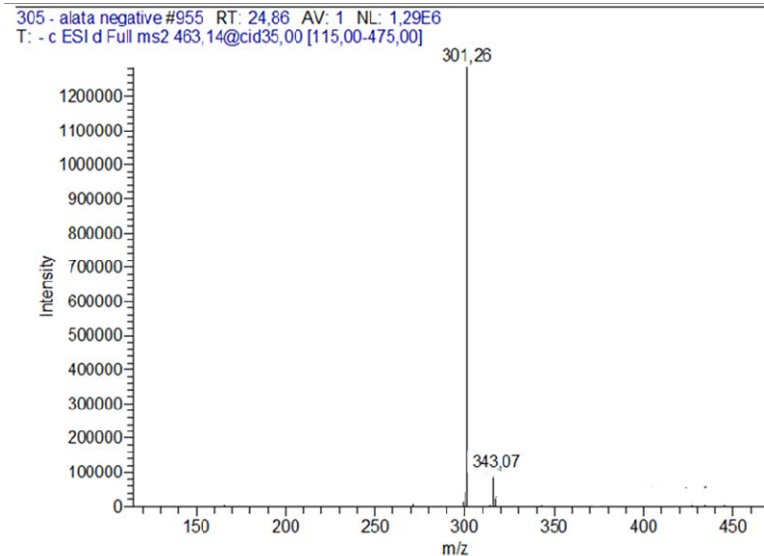
### Isoorientin-4 -O-glucoside at [M - H]<sup>-</sup> 609



### 6-Hydroxyquercetin-3-O-di-hexose at [M - H]<sup>-</sup> 641



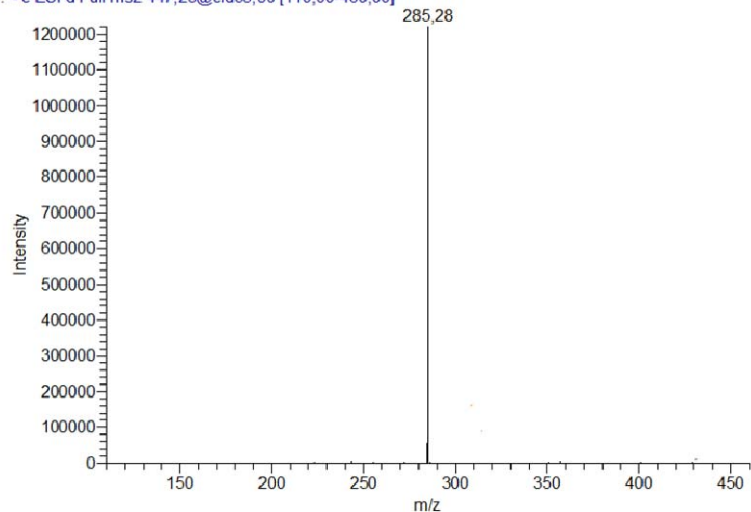
### Quercetin 3-O-glucoside at [M - H]<sup>-</sup> 463



## Supplementary Figure 2. ESI-MS/MS profiles of identified compounds-Continued

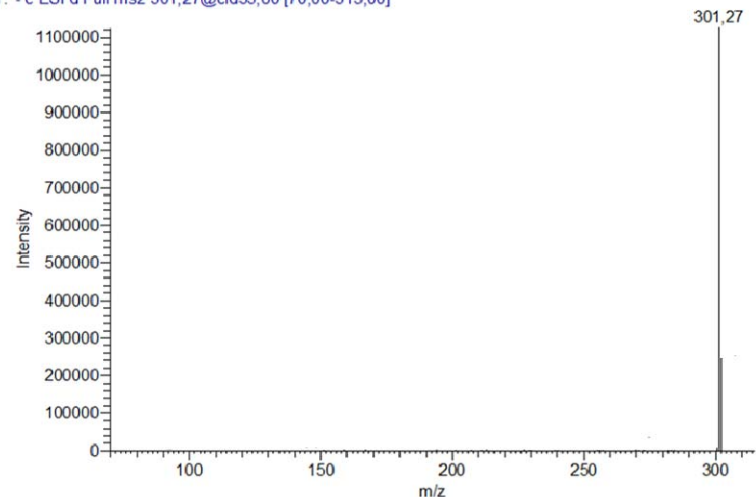
### Luteolin-8-C- $\beta$ -D-glucopyranoside at [M - H]<sup>-</sup> 447

305 - Copie Meoh alata neg #989 RT: 25,74 AV: 1 NL: 1,22E6  
T: - c ESI d Full ms2 447,23@cid35,00 [110,00-460,00]



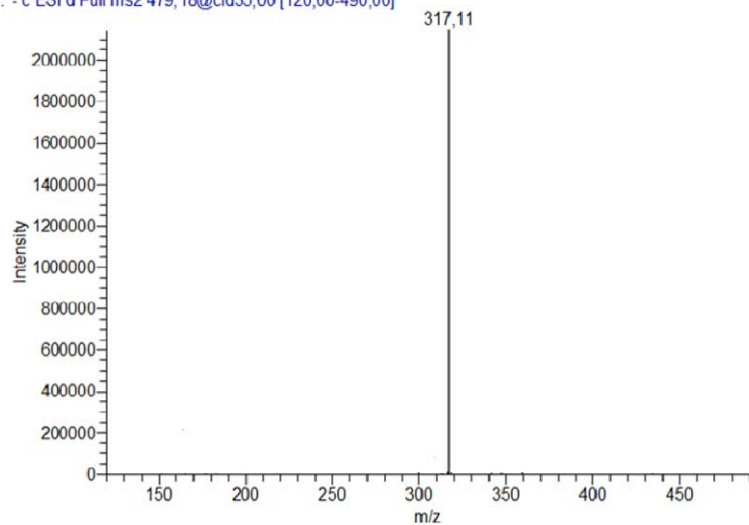
### Quercetin at [M - H]<sup>-</sup> 301

305 - alata negative #1027 RT: 26,65 AV: 1 NL: 1,13E6  
T: - c ESI d Full ms2 301,27@cid35,00 [70,00-315,00]



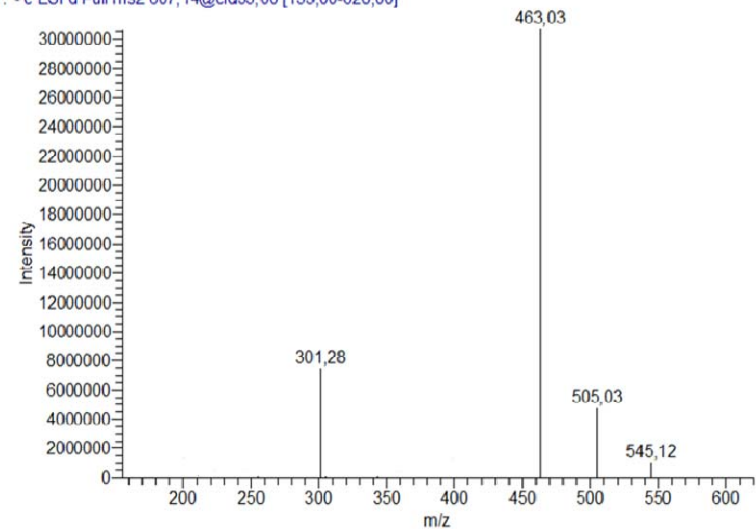
### Myricetin-3-O-glucoside at [M - H]<sup>-</sup> 479

305 - alata negative #1139 RT: 29,43 AV: 1 NL: 2,15E6  
T: - c ESI d Full ms2 479,18@cid35,00 [120,00-490,00]



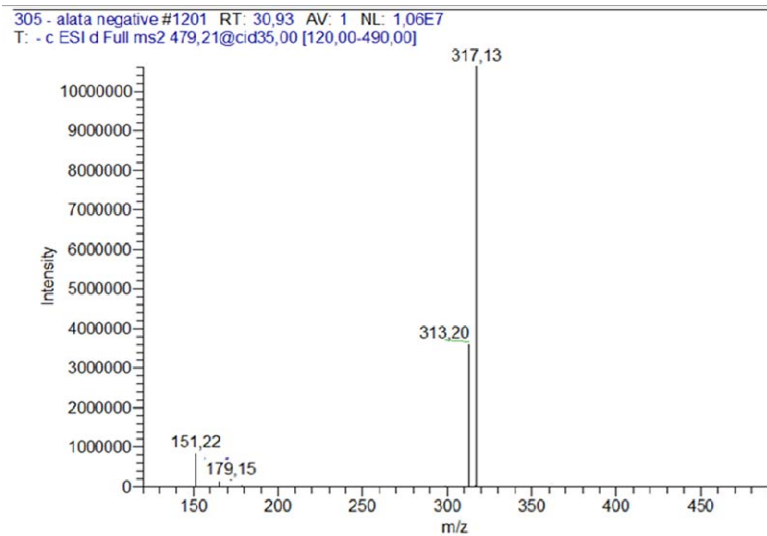
### Quercetin 3-O-[6''-(3-hydroxyl-3-methylglutaryl)- $\beta$ -D-galactoside] at [M - H]<sup>-</sup> 607

305 - alata negative #1181 RT: 30,46 AV: 1 NL: 3,07E7  
T: - c ESI d Full ms2 607,14@cid35,00 [155,00-620,00]

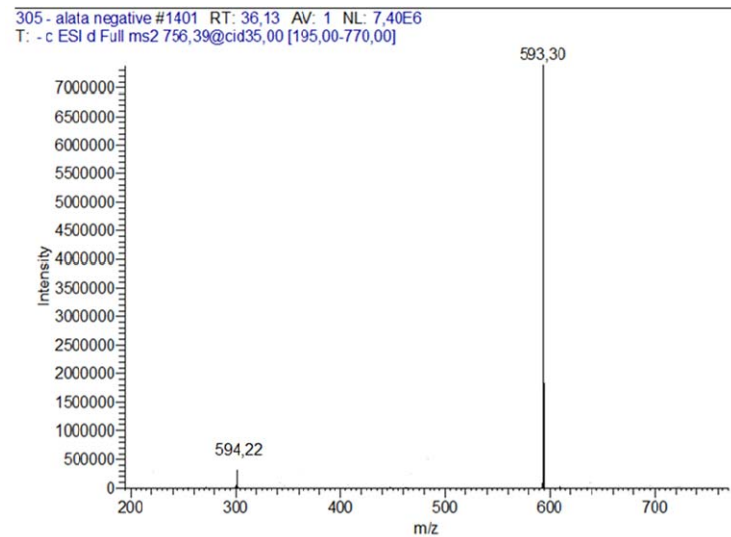


## Supplementary Figure 2. ESI-MS/MS profiles of identified compounds-Continued

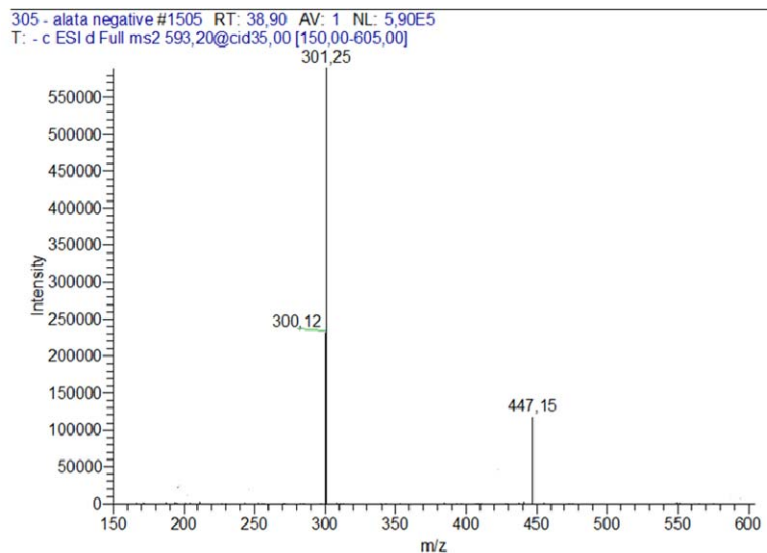
Quercetin 3-*O*-rhamnoside 7-*O*-rhamnoside at [M - H]<sup>-</sup> 479



Unknown at [M - H]<sup>-</sup> 756



Quercetin 3-*O*-rhamnoside 7-*O*-rhamnoside at [M - H]<sup>-</sup> 593



Kaempferol-*O*-di-deoxyhexoside at [M - H]<sup>-</sup> 577

