Supplementary Materials

Evaluation of the Cytotoxic, Antioxidative, and Antimicrobial Effects of *Dracocephalum moldavica* L. Cultivars

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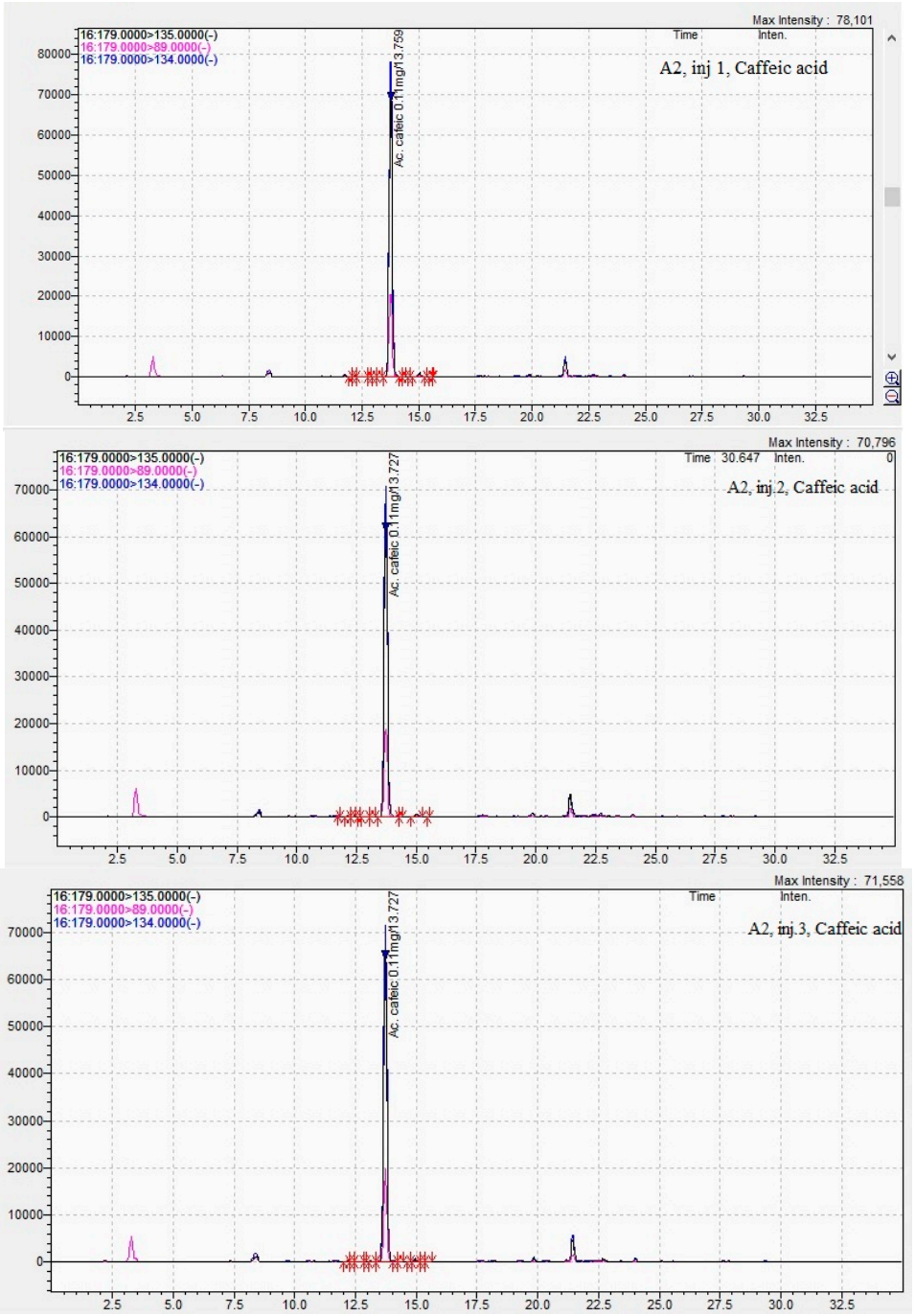


Figure S1. LC-MS chromatograms obtained for the identification of caffeic acid in the A2 sample (3 injections).

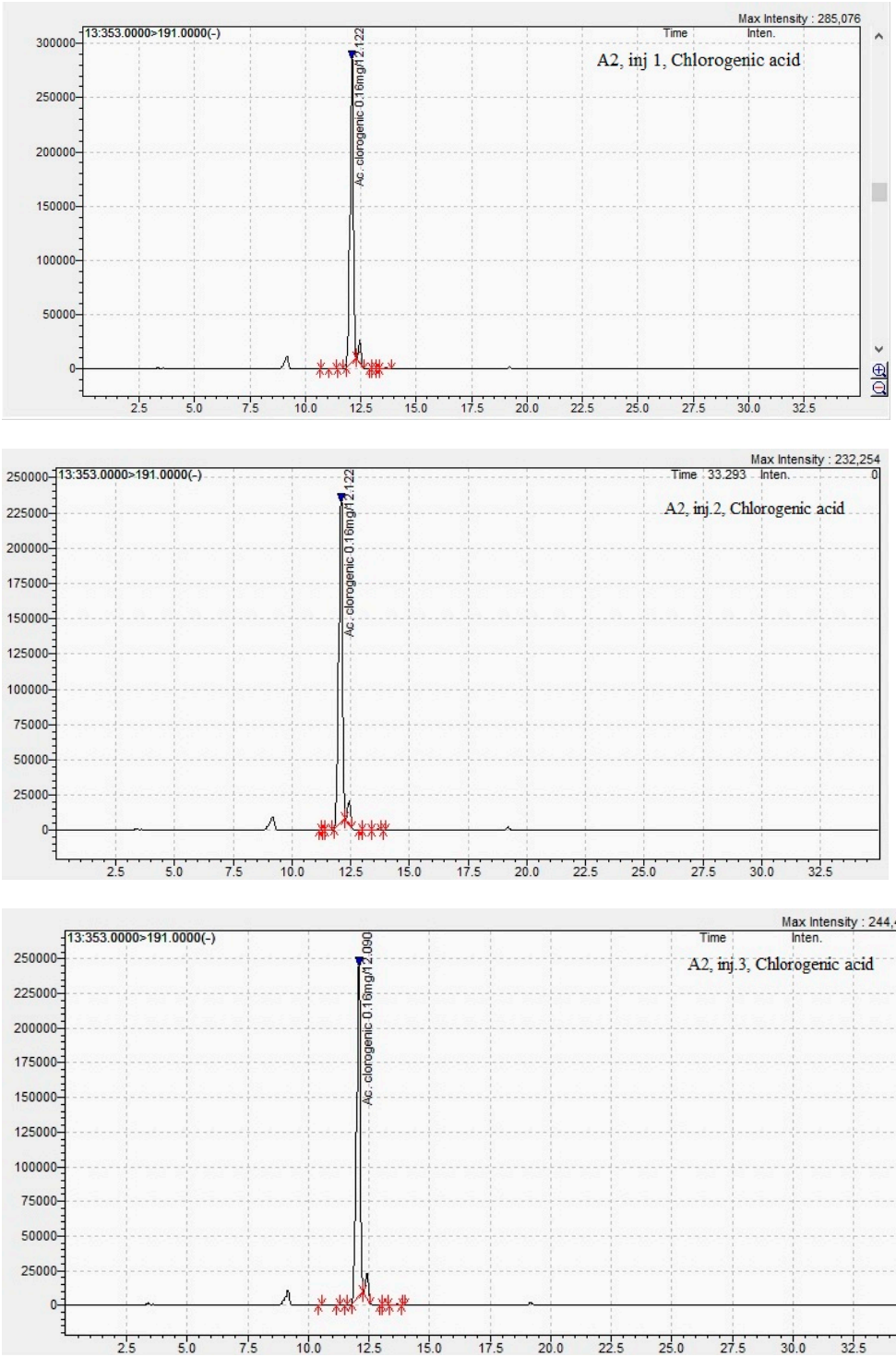


Figure S2. LC-MS chromatograms obtained for the identification of chlorogenic acid in the A2 sample (3 injections).

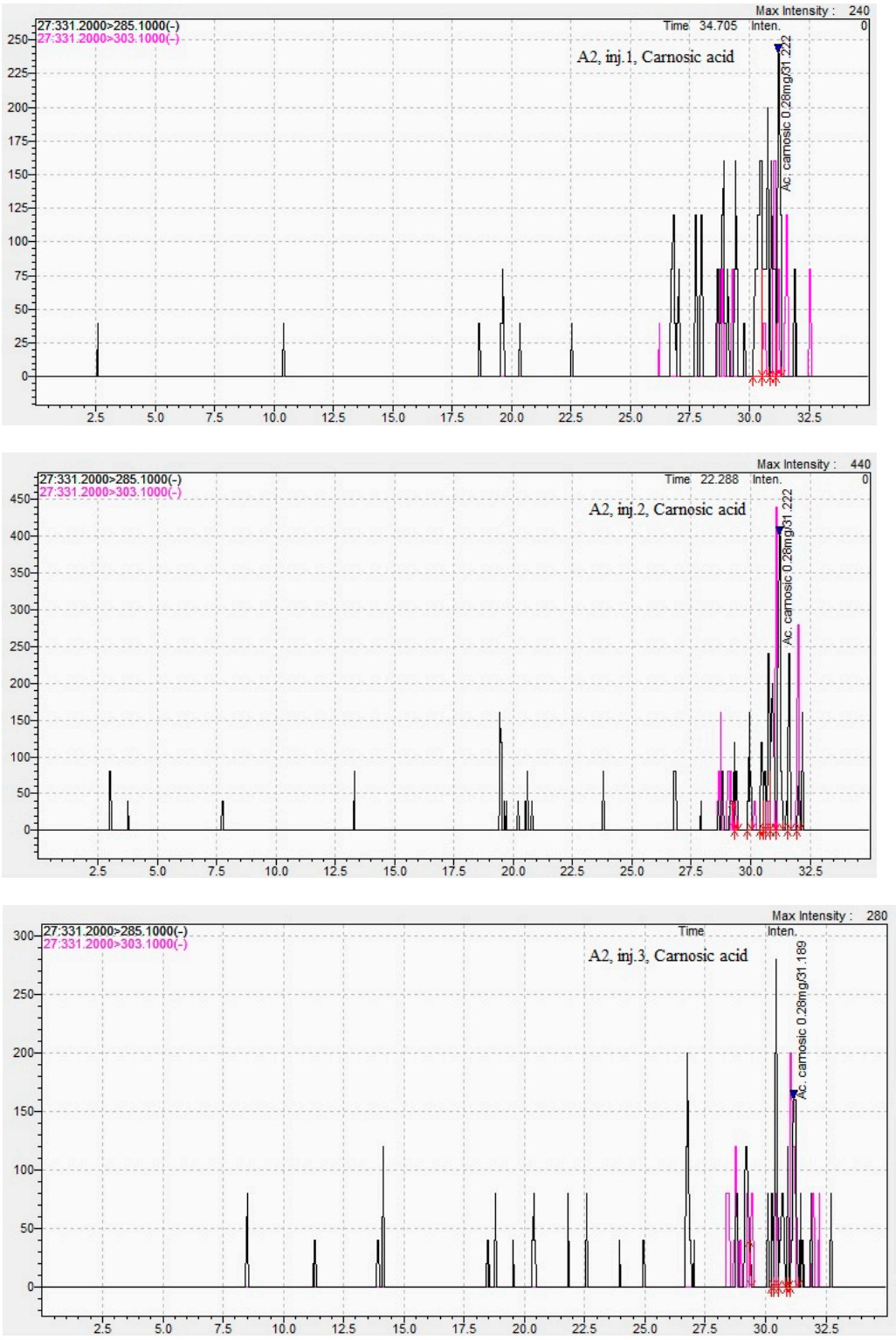


Figure S3. LC-MS chromatograms obtained for the identification of carnosic acid in the A2 sample (3 injections).

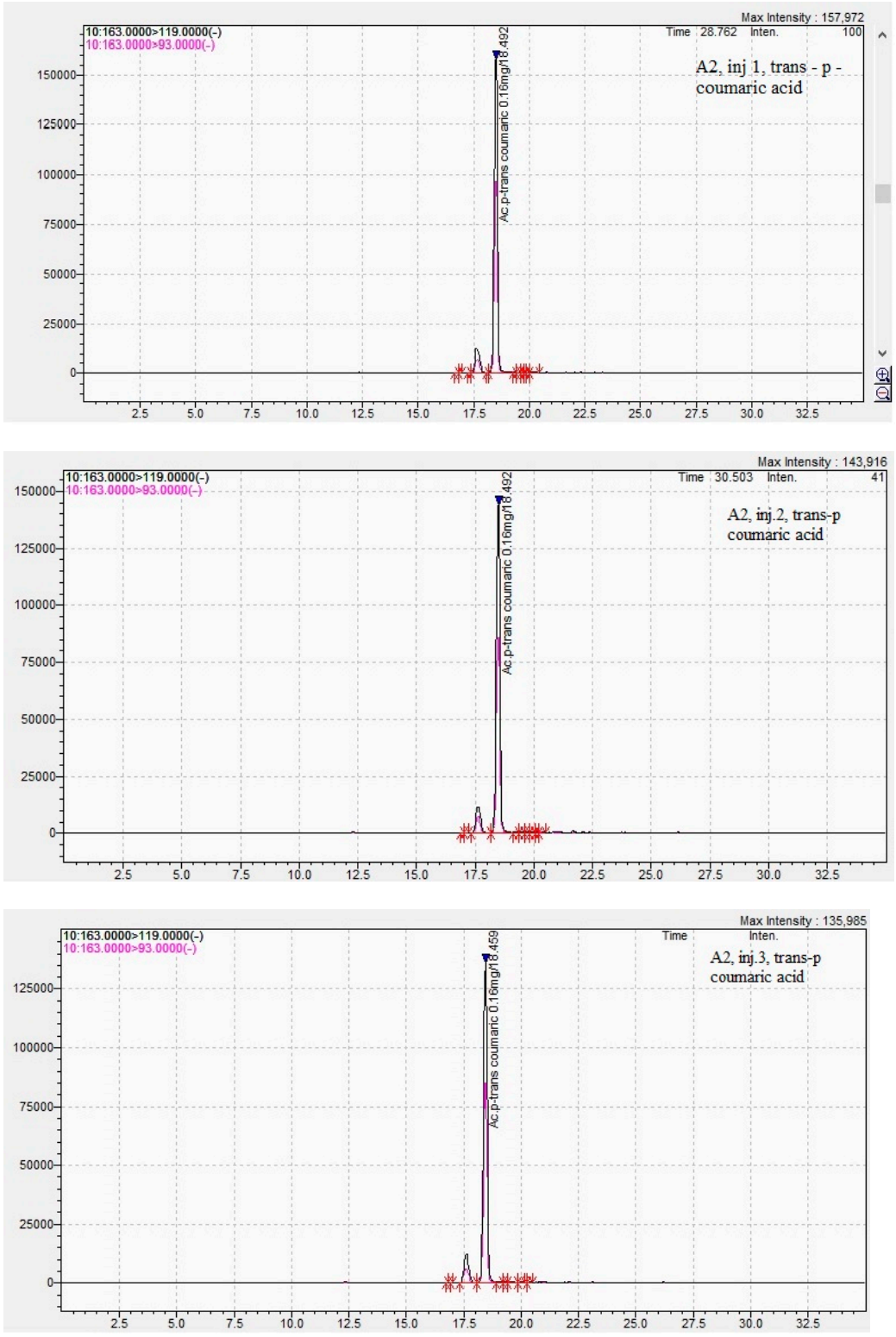


Figure S4. LC-MS chromatograms obtained for the identification of trans-*p*-coumaric acid in the A2 sample (3 injections).

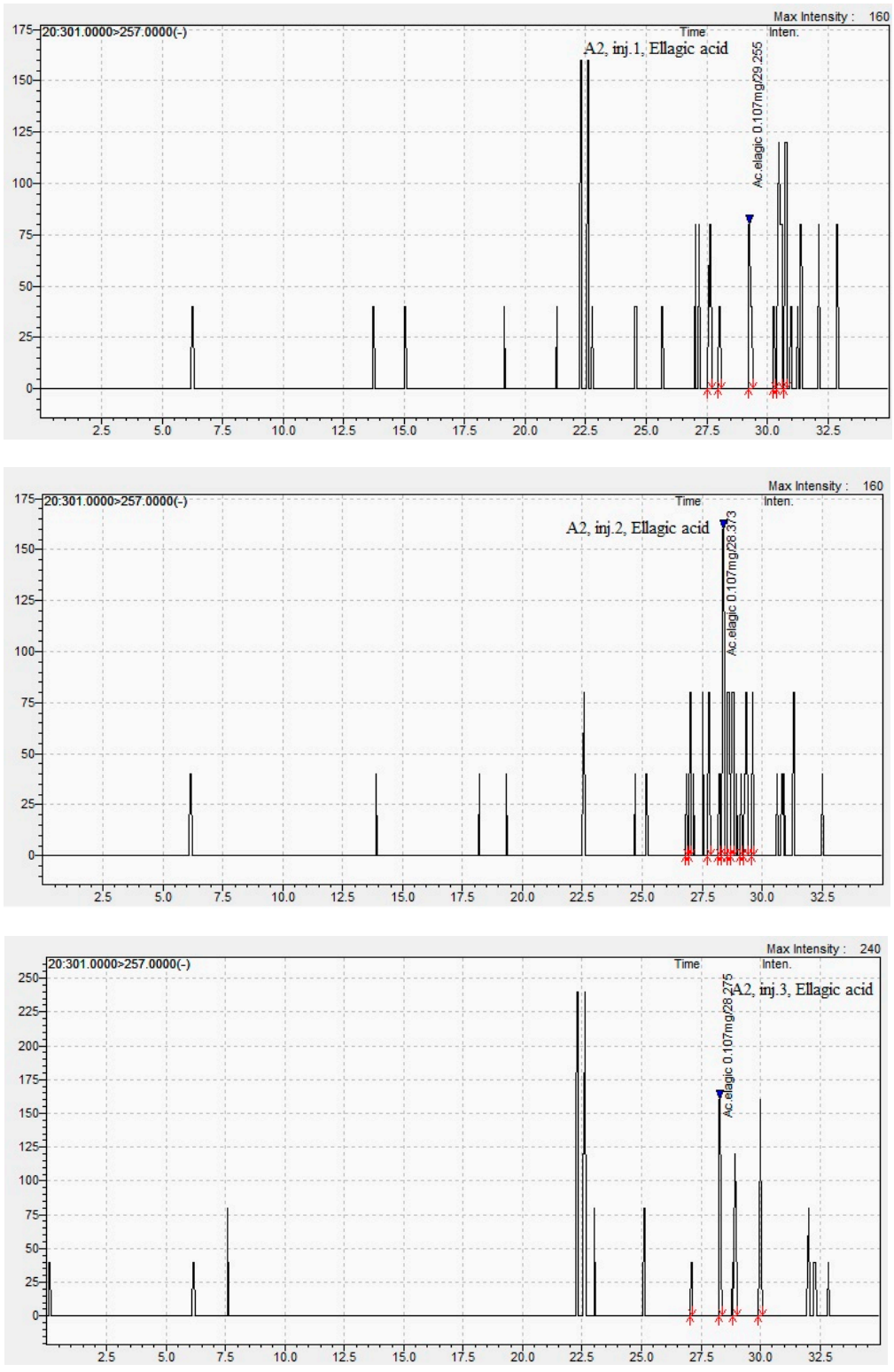


Figure S5. LC-MS chromatograms obtained for the identification of ellagic acid in the A2 sample (3 injections).

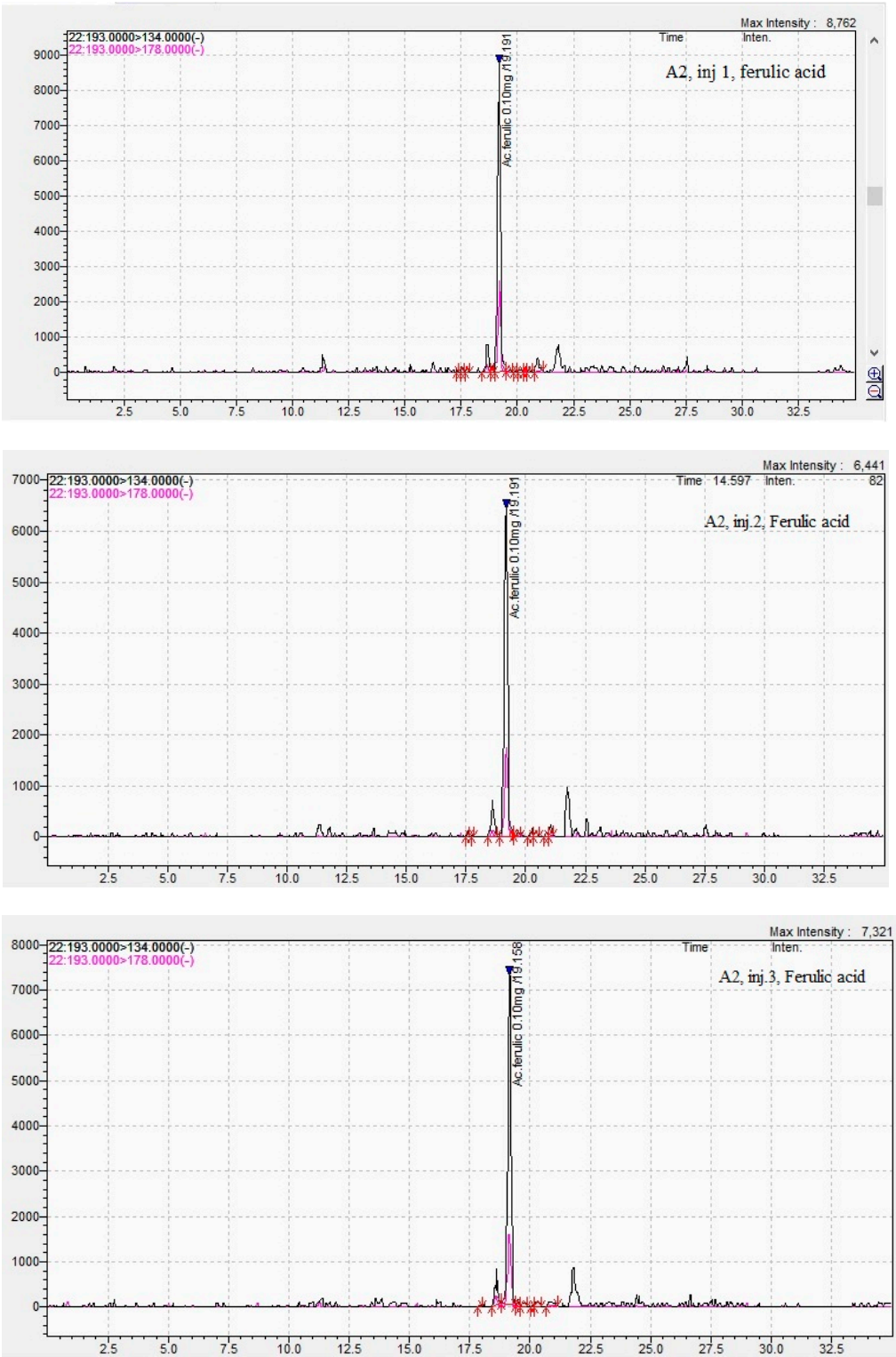
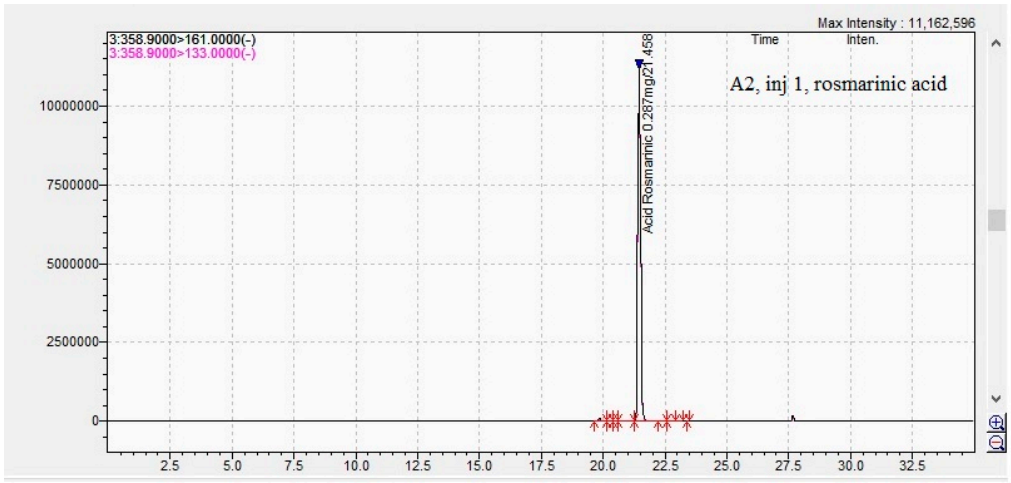
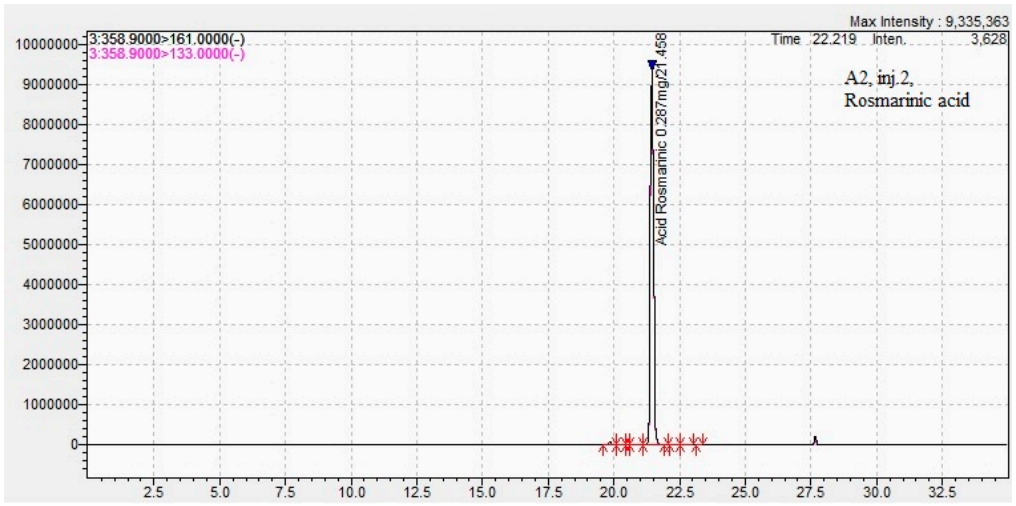


Figure S6. LC-MS chromatograms obtained for the identification of ferulic acid in the A2 sample (3 injections).





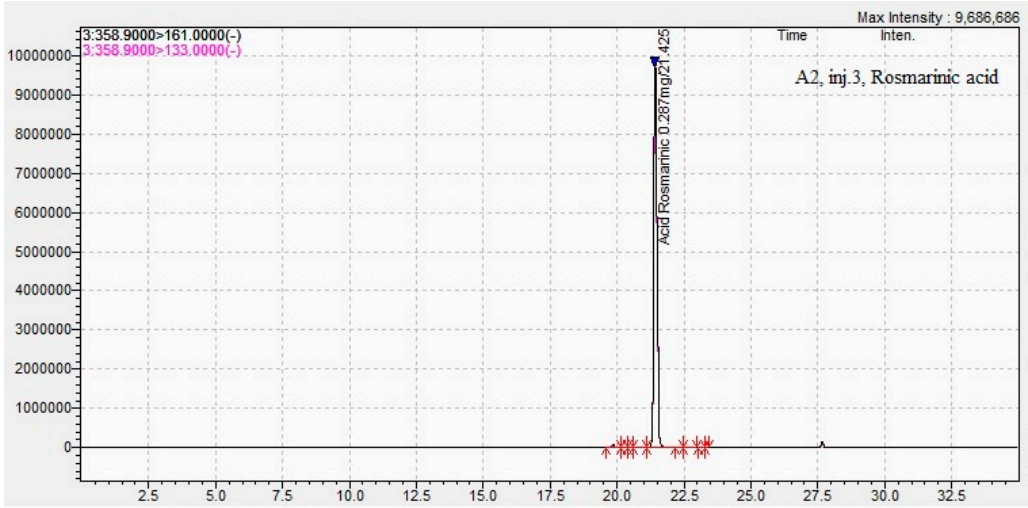


Figure S7. LC-MS chromatograms obtained for the identification of rosmarinic acid in the A2 sample (3 injections).

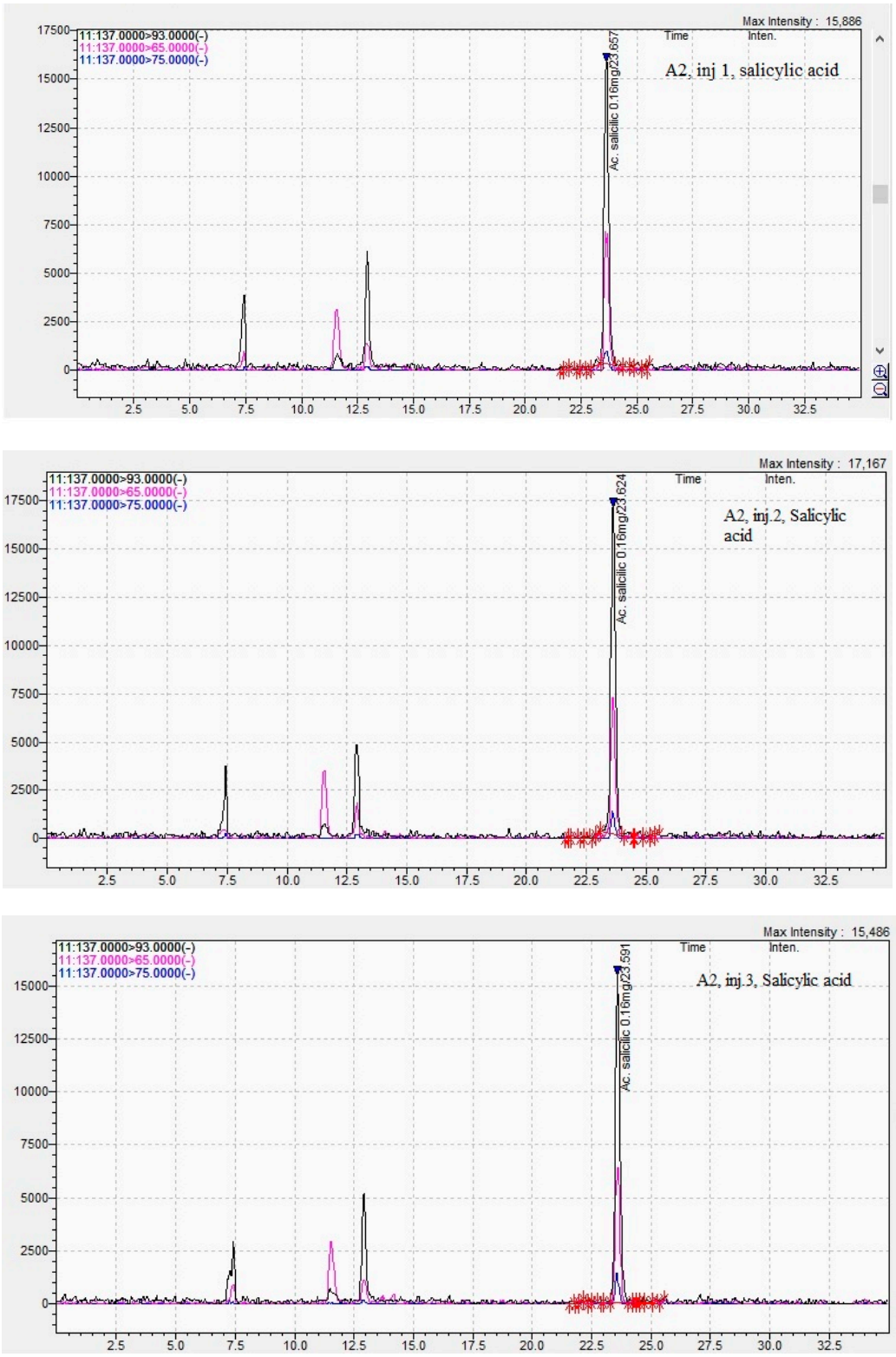


Figure S8. LC-MS chromatograms obtained for the identification of salicylic acid in the A2 sample (3 injections).

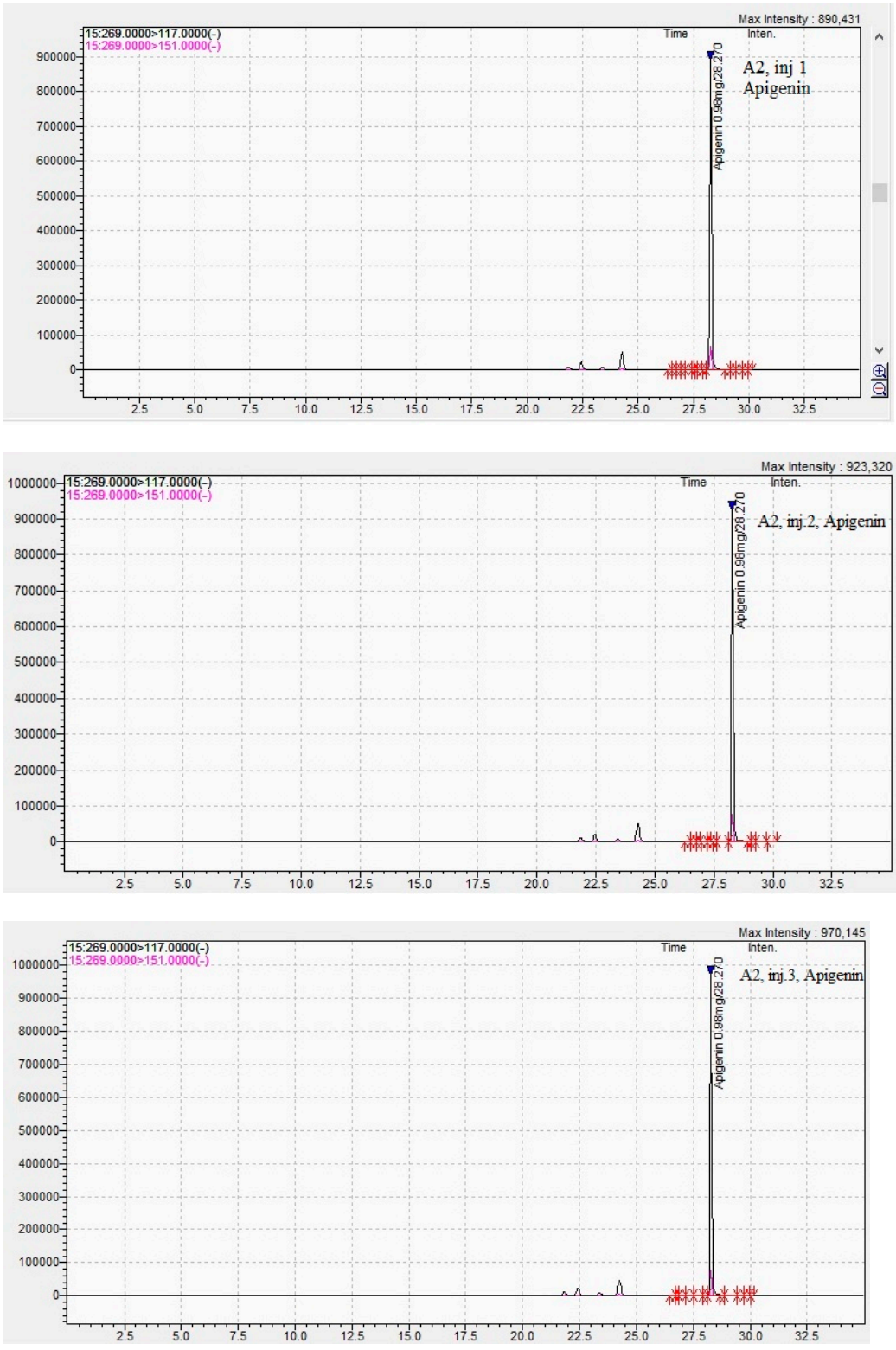


Figure S9. LC-MS chromatograms obtained for the identification of apigenin in the A2 sample (3 injections).

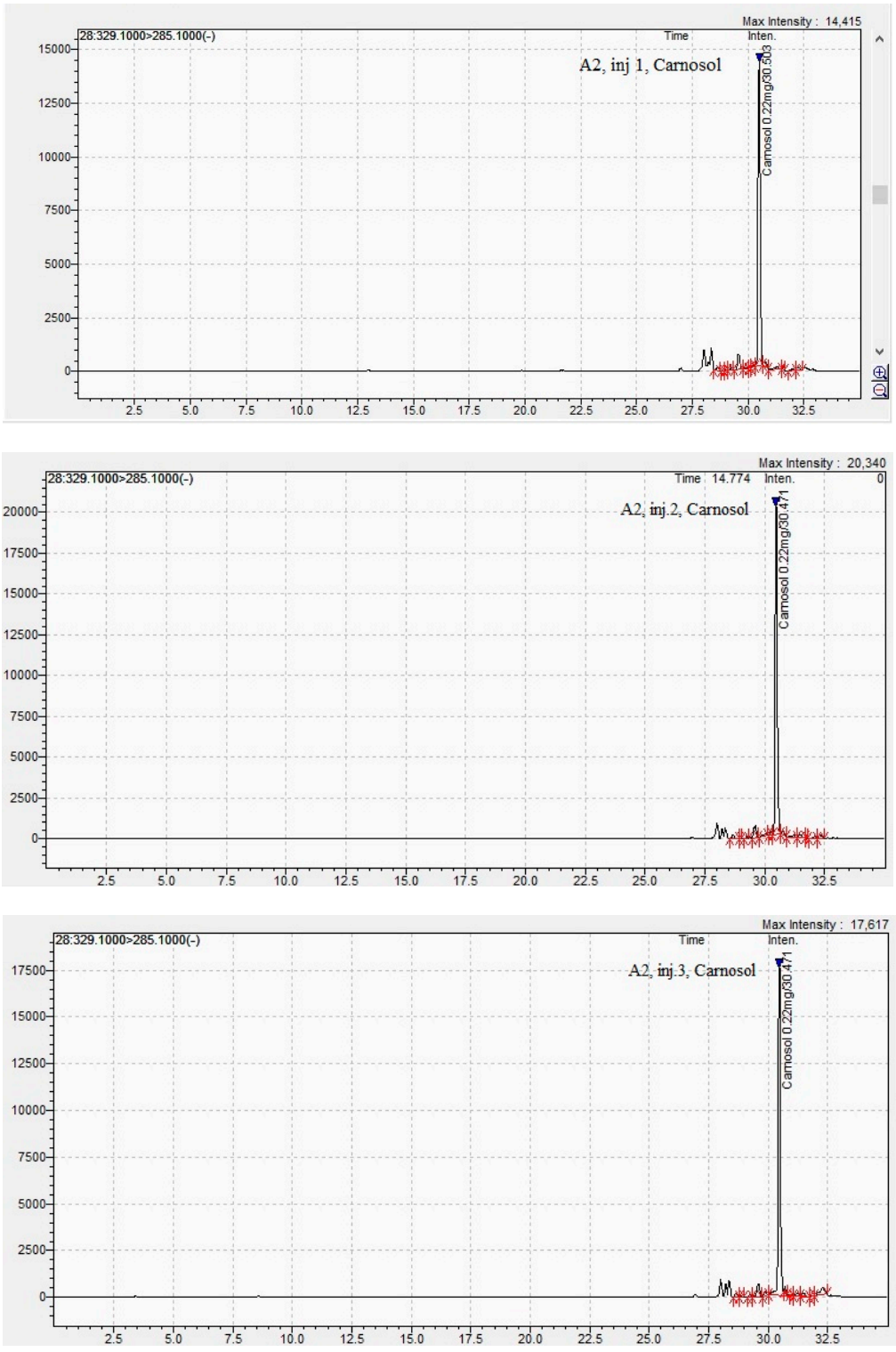


Figure S10. LC-MS chromatograms obtained for the identification of carnosol in the A2 sample (3 injections).

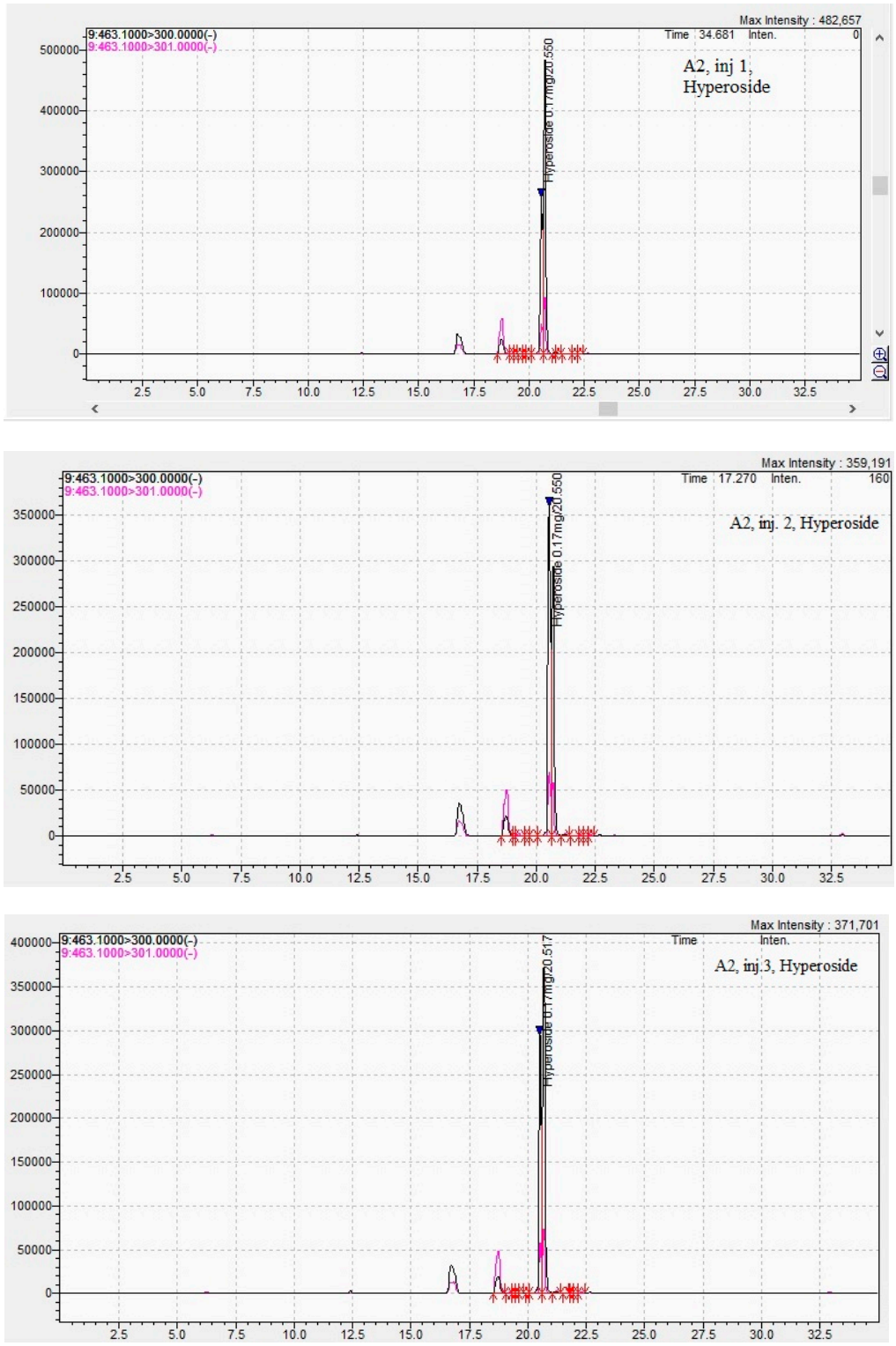


Figure S11. LC-MS chromatograms obtained for the identification of hyperoside in the A2 sample (3 injections).

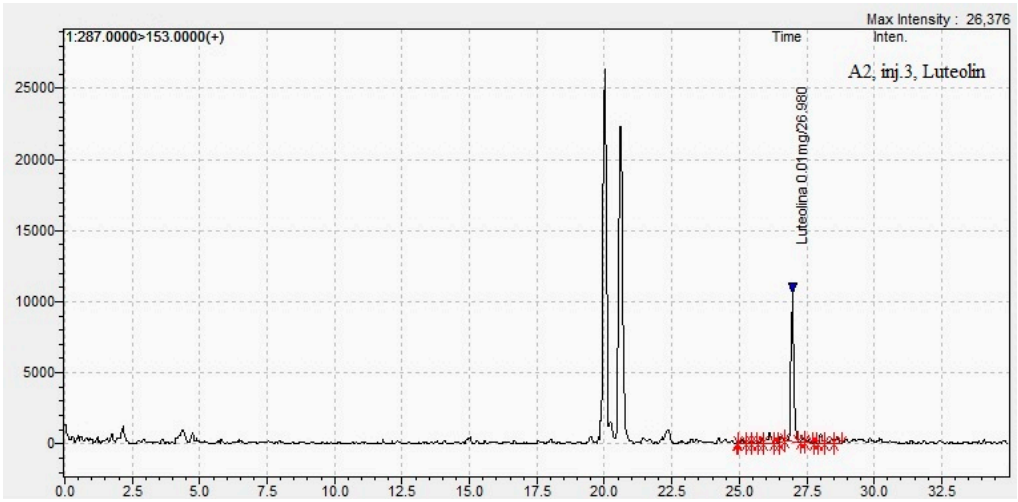


Figure S12. LC-MS chromatograms obtained for the identification of luteolin in the A2 sample (3 injections).

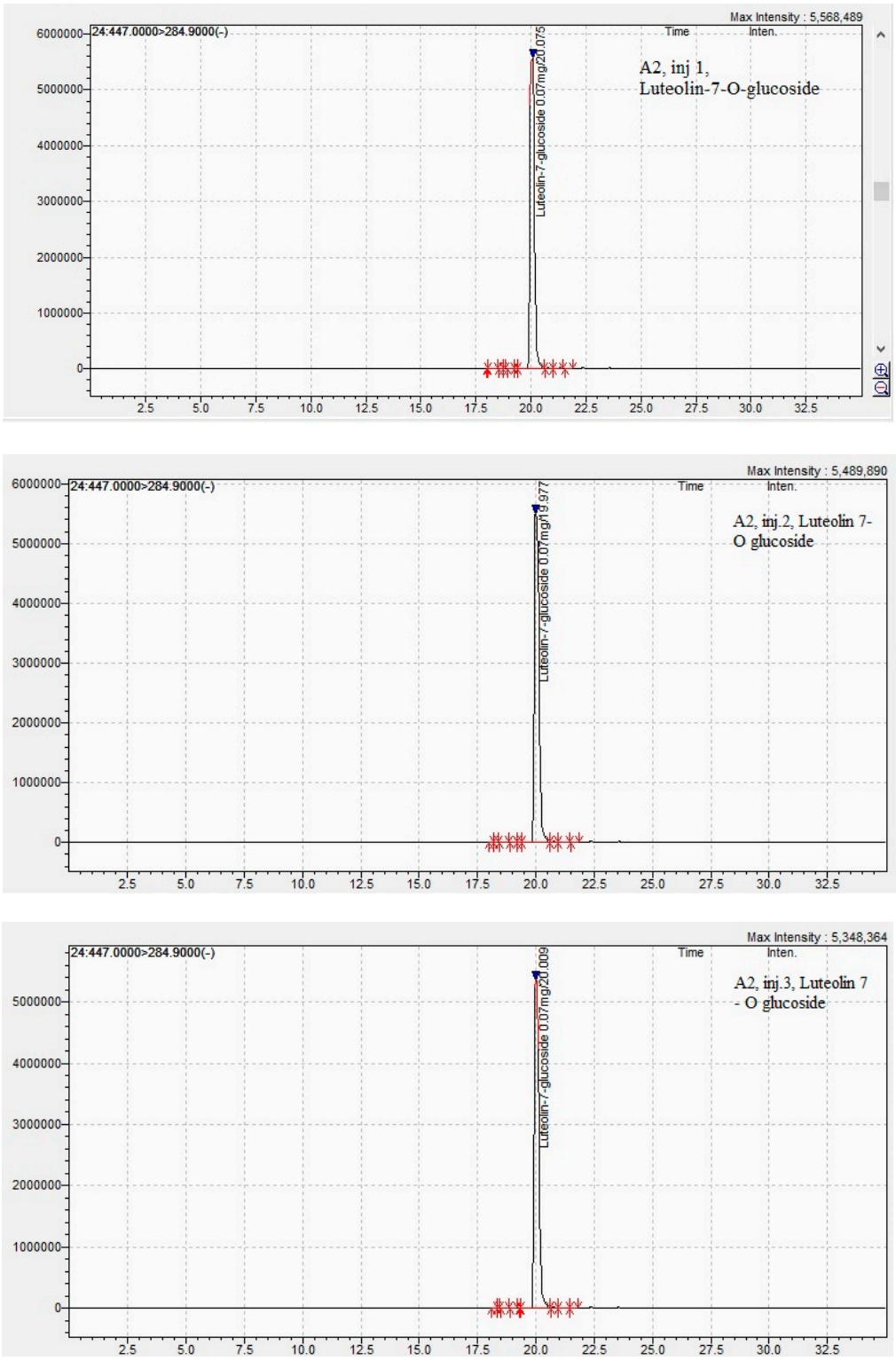


Figure S13. LC-MS chromatograms obtained for the identification of luteolin-7-O-glucoside in the A2 sample (3 injections).

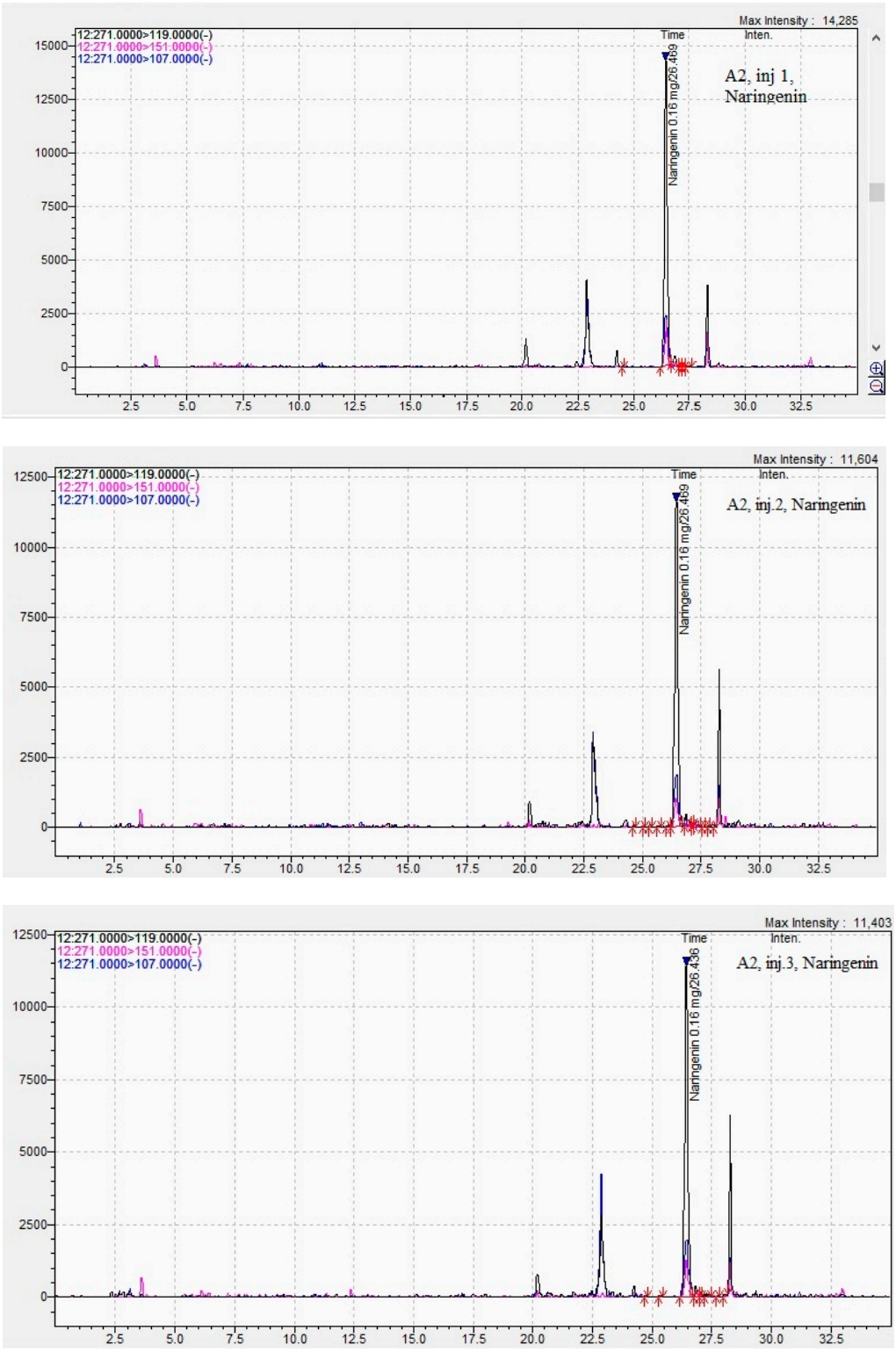


Figure S14. LC-MS chromatograms obtained for the identification of naringenin in the A2 sample (3 injections).

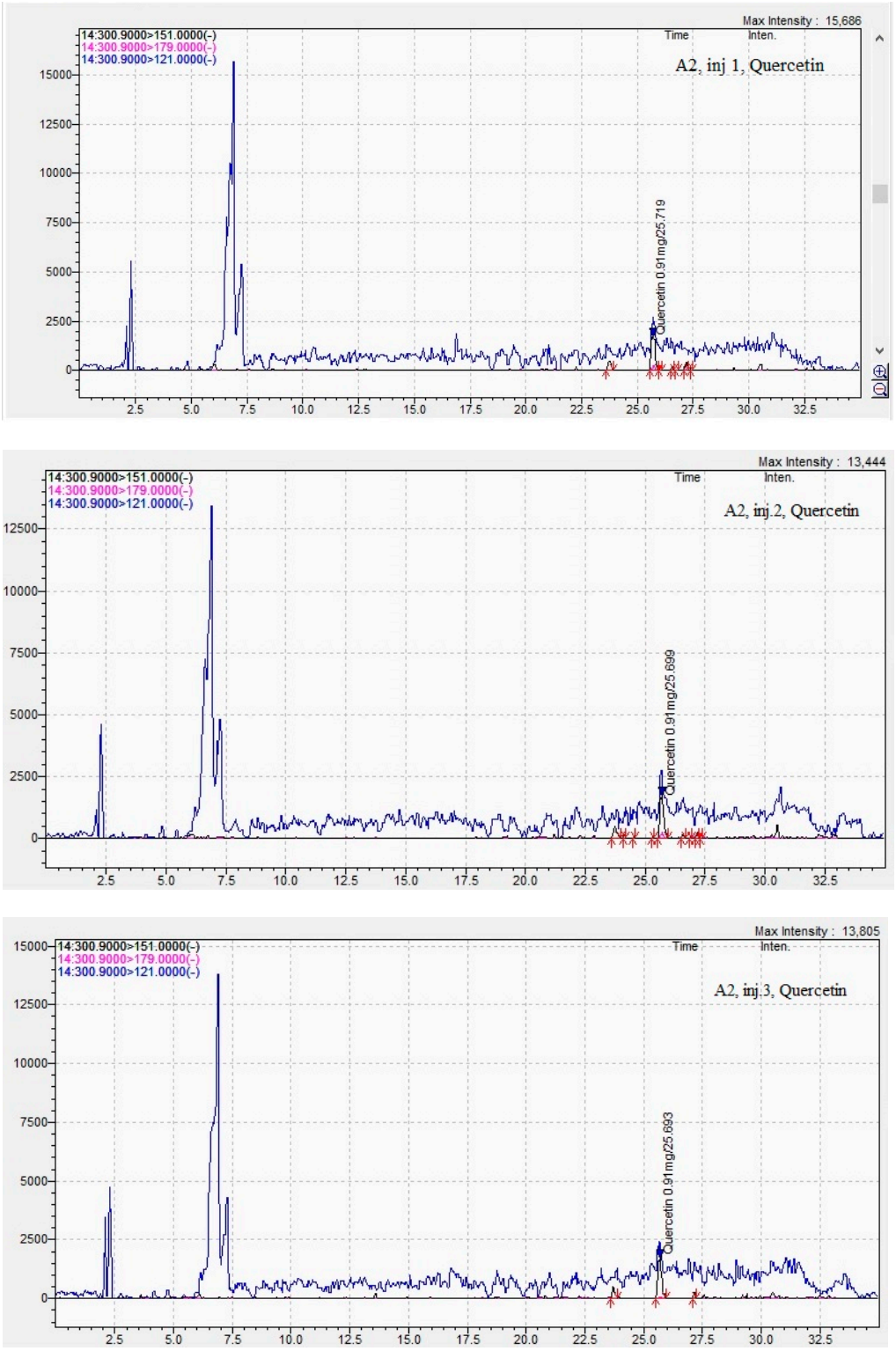


Figure S15. LC-MS chromatograms obtained for the identification of quercetin in the A2 sample (3 injections).

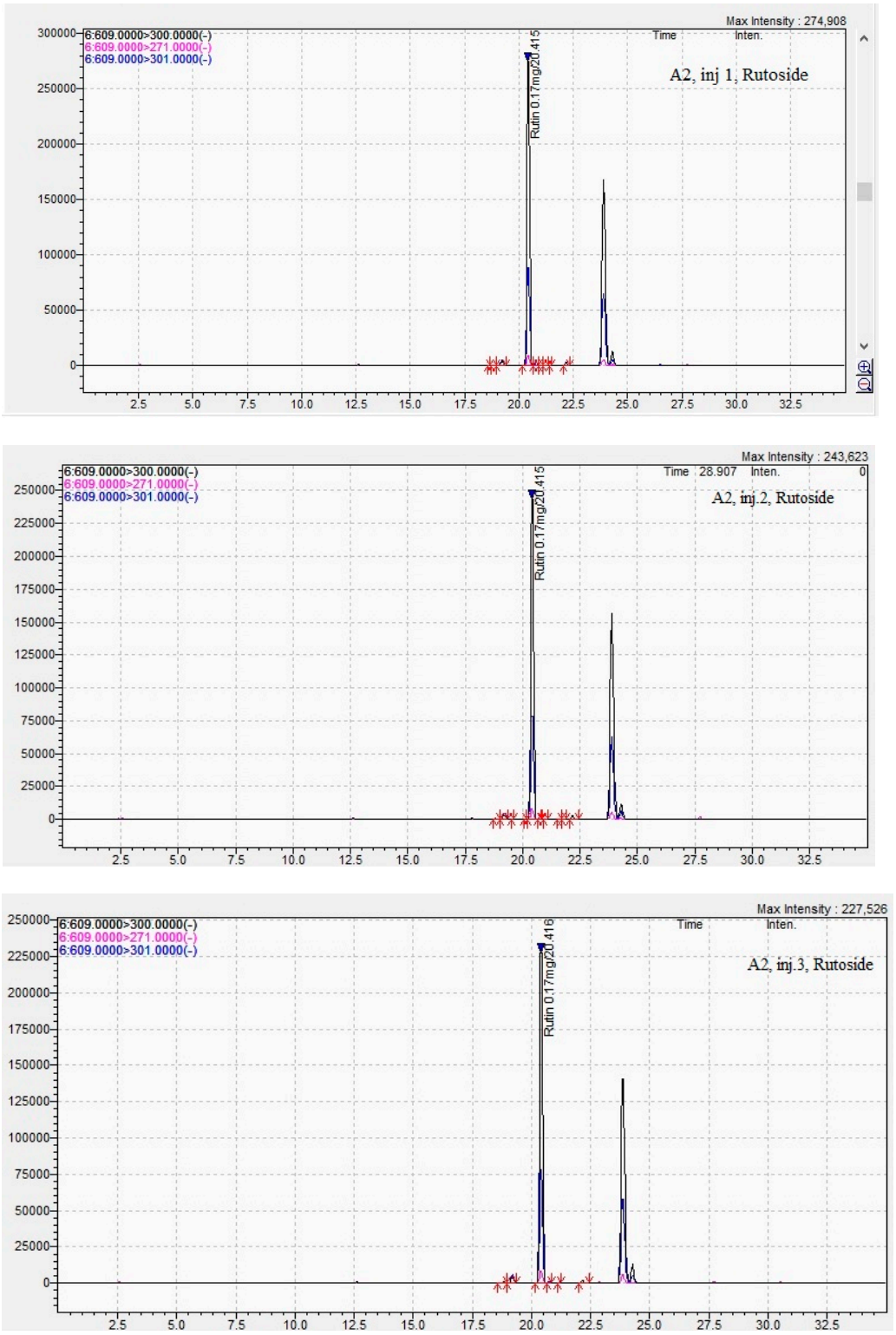


Figure S16. LC-MS chromatograms obtained for the identification of rutoside in the A2 sample (3 injections).

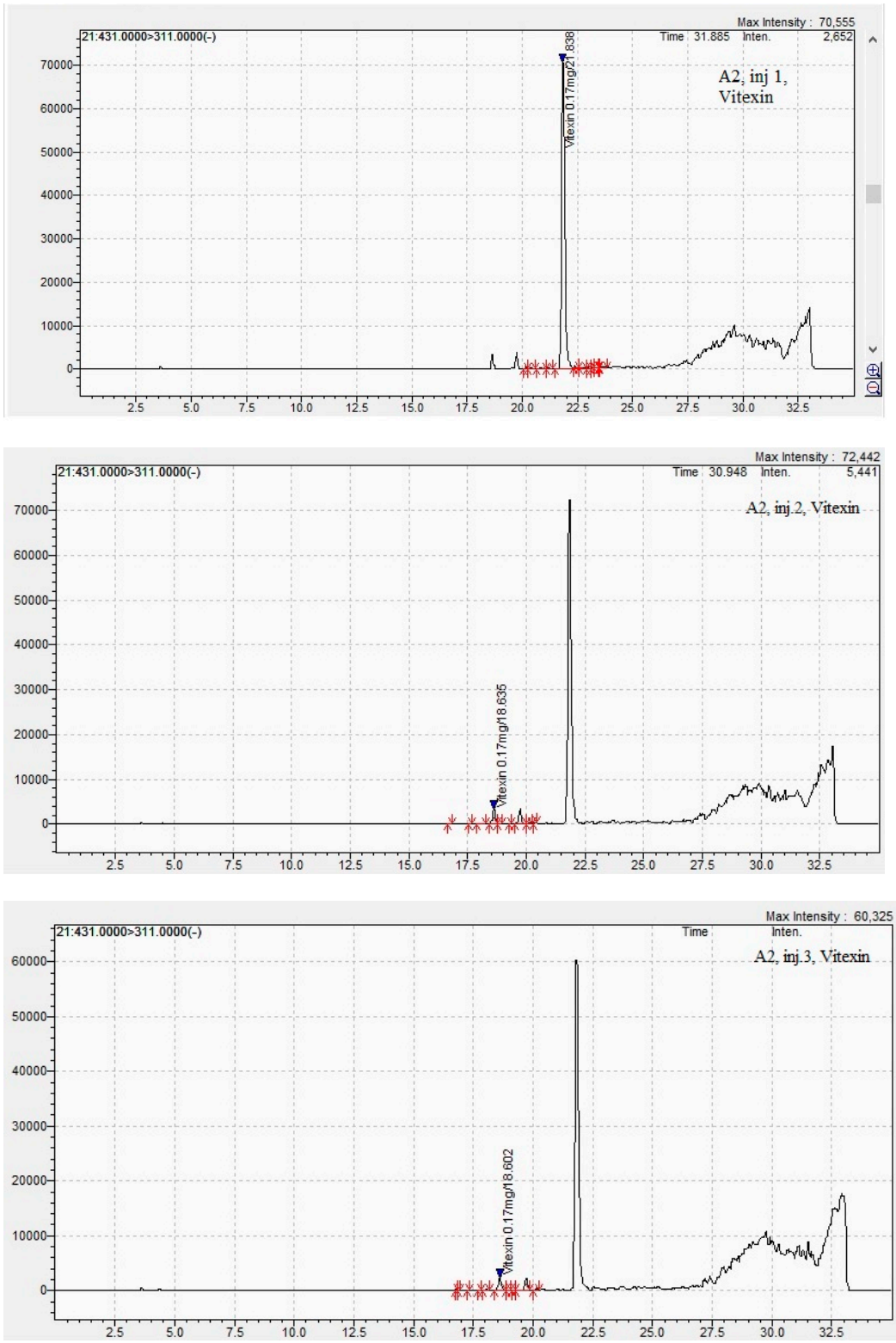


Figure S17. LC-MS chromatograms obtained for the identification of vitexin in the A2 sample (3 injections).

A2	A	Acontrol	I	I%	Conc (µg/mL)
1	0,916		0,057516	5,751621	6,25
2	0,813		0,163494	16,34942	12,5
3	0,7352		0,243544	24,35436	18,75
4	0,6314	0,9719	0,350345	35,03447	25
5	0,5465		0,437699	43,76994	31,25
6	0,4557		0,531125	53,11246	37,5
7	0,3679		0,621463	62,14631	43,75
8	0,2804		0,711493	71,1493	50

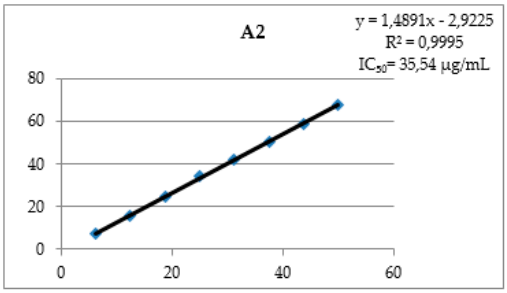


Figure S18. Determination of IC_{50} for the A2 sample. Note: I % = (A control − A sample/A control) × 100 where A control is the absorbance of the control, composed of the DPPH● radical solution + methanol (mixture containing all reagents except the sample) and A sample is the absorbance of DPPH radical + sample. The DPPH radical scavenging activity of the sample was expressed as IC_{50} (µg/mL), that is the concentration required to cause a 50% DPPH inhibition.

B2	A	Acontrol	I	I%	Conc (µg/mL)
1	1,1161		0,042714	4,271378	6,25
2	0,9737		0,164851	16,48512	12,5
3	0,8729		0,251308	25,1308	18,75
4	0,7782	1,1659	0,332533	33,25328	25
5	0,6667		0,428167	42,81671	31,25
6	0,5549		0,524059	52,40587	37,5
7	0,4253		0,635217	63,52174	43,75
8	0,3374		0,71061	71,06098	50

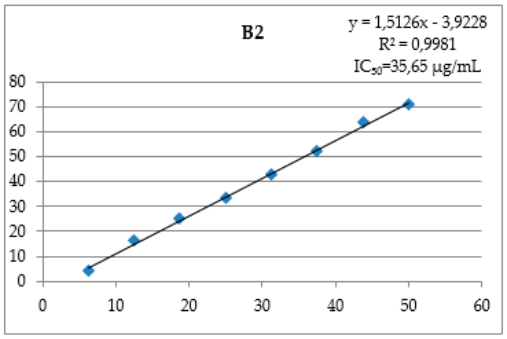


Figure S19. Determination of IC_{50} for the B2 sample. Note: I % = (A control − A sample/A control) × 100 where A control is the absorbance of the control, composed of the DPPH● radical solution + methanol (mixture containing all reagents except the sample) and A sample is the absorbance of DPPH radical + sample. The DPPH radical scavenging activity of the sample was expressed as IC_{50} (µg/mL), that is the concentration required to cause a 50% DPPH inhibition.

A1	A	Acontrol	I	I%	Conc (µg/mL)
1	0,9857		0,365048	36,50477	12,5
2	0,9045		0,417354	41,73538	25
3	0,8345		0,462445	46,24452	37,5
4	0,7246	1,5524	0,533239	53,32389	50
5	0,5742		0,630121	63,01211	62,5
6	0,4826		0,689127	68,91265	75
7	0,4012		0,741561	74,15615	87,5
8	0,3321		0,786073	78,60732	100

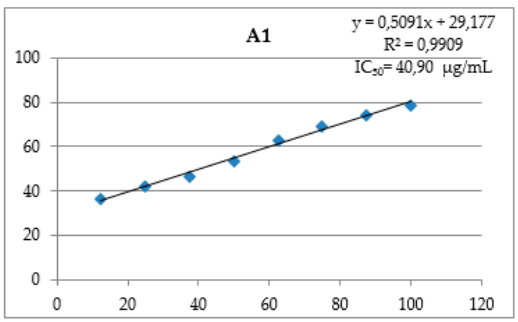


Figure S20. Determination of IC_{50} for the A1 sample. Note: I % = (A control − A sample/A control) × 100 where A control is the absorbance of the control, composed of the DPPH● radical solution + methanol (mixture containing all reagents except the sample) and A sample is the absorbance of DPPH radical + sample. The DPPH radical scavenging activity of the sample was expressed as IC_{50} (µg/mL), that is the concentration required to cause a 50% DPPH inhibition.

Ascorbic acid	A	Acontrol	I	I%	Conc (µg/mL)
1	1,2733		0,076851	7,685058	1,25
2	1,0846		0,213659	21,36591	2,5
3	0,9212		0,332125	33,2125	3,75
4	0,7812	1,3793	0,433626	43,36258	5
5	0,6262		0,546002	54,60016	6,25
6	0,4488		0,674618	67,46176	7,5
7	0,305		0,778873	77,88733	8,75
8	0,1443		0,895382	89,53817	10

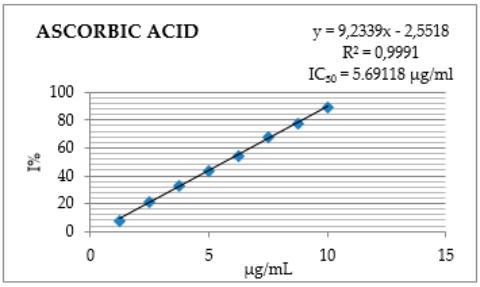
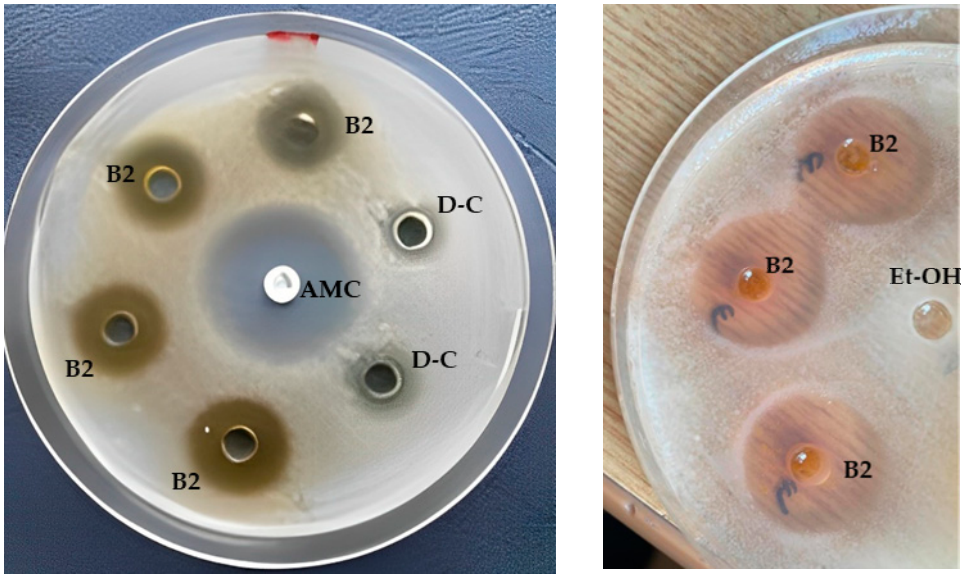


Figure S21. Determination of IC_{50} for the ascorbic acid. Note: I % = (A control − A sample/A control) × 100 where A control is the absorbance of the control, composed of the DPPH● radical solution + methanol (mixture containing all reagents except the sample) and A sample is the absorbance of DPPH radical + sample. The DPPH radical scavenging activity of the sample was expressed as IC_{50} (μg/mL), that is the concentration required to cause a 50% DPPH inhibition.



(a) (b)

Figure S22. *In vitro* antibacterial activity of the *D. moldavica* sample B2 by well diffusion method against reference strains: (**a**) *Staphylococcus aureus* ATCC 25923, (**b**) *Escherichia coli* ATCC 25922; positive (AMC, amoxicillin-clavulanic acid) and negative (70% Et-OH) control center placed; D-C (*D. moldavica* commercial product, data not included).

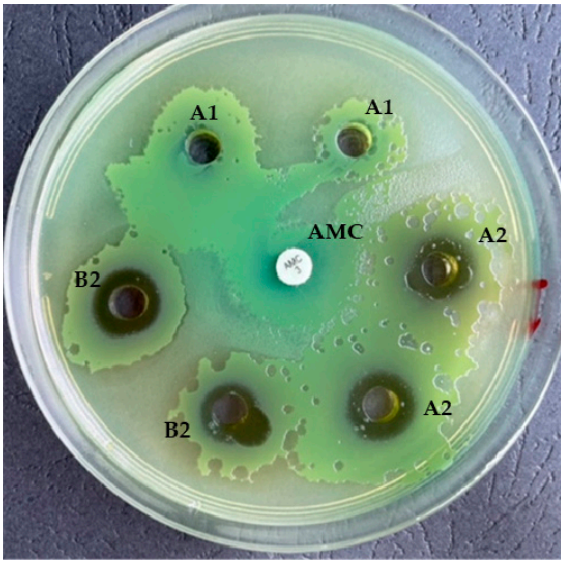


Figure S23. *In vitro* antibacterial activity of the *D. moldavica* samples (A1, A2, B2) as well as of the positive control (AMC, amoxicillin-clavulanic acid, center placed) by well diffusion method against *Pseudomonas aeruginosa* ATCC 27853, no inhibitory effect towards the reference strain.