

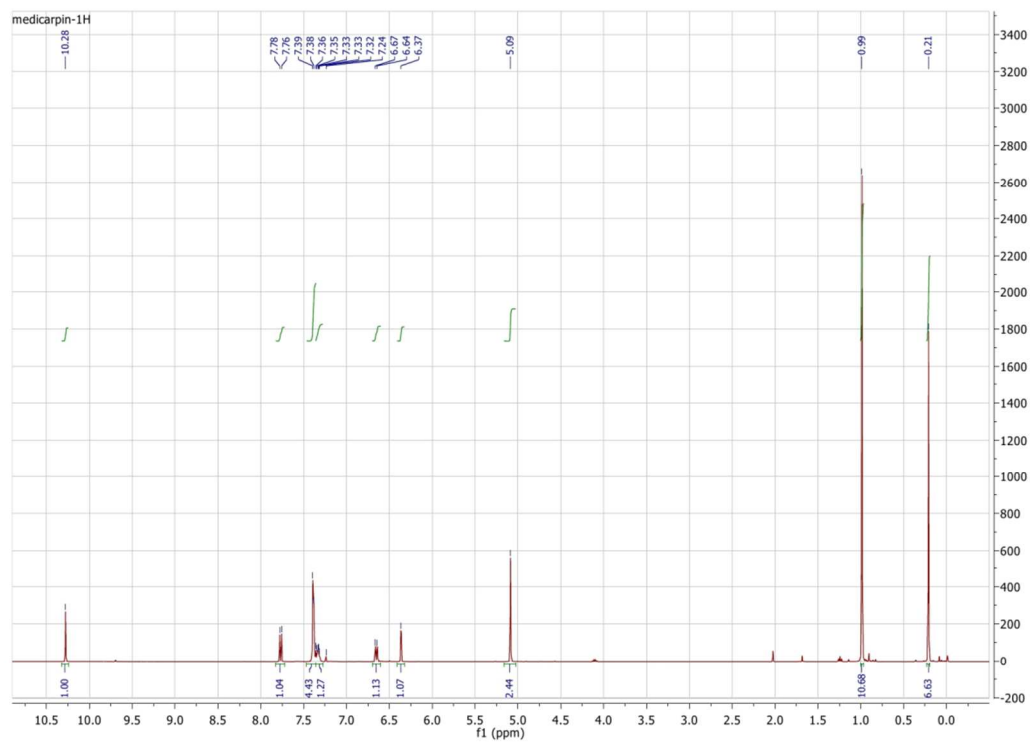
Supplementary Information

Total Synthesis of (+)-Medicarpin

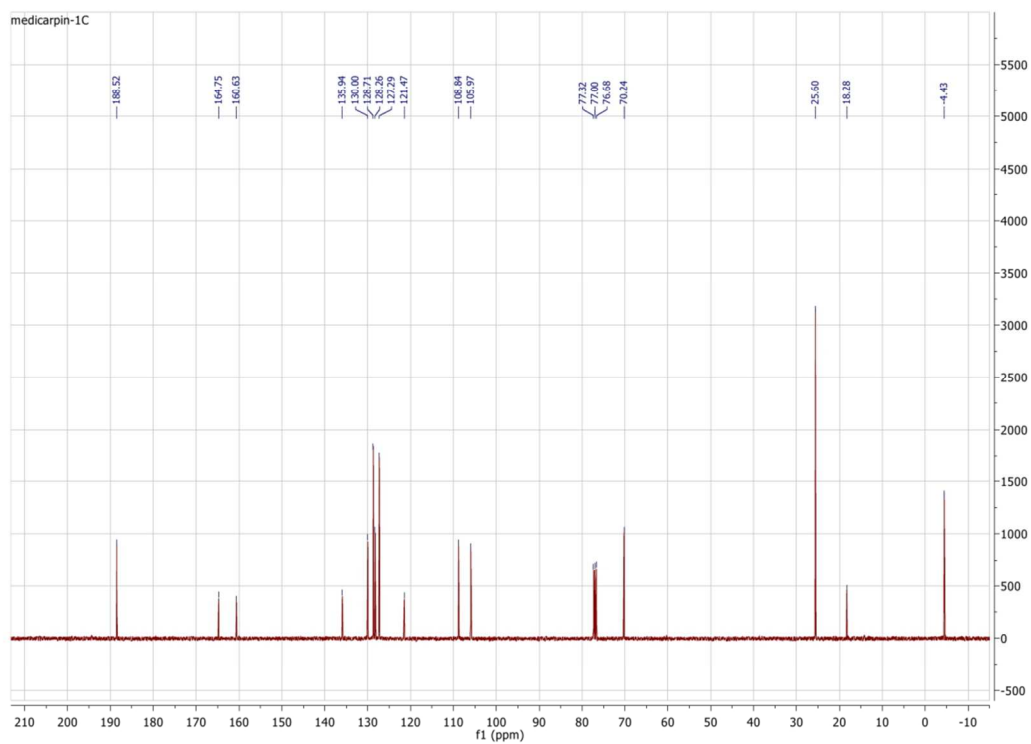
Xiaoming Yang, Yu Zhao, Min-Tsang Hsieh, Guang Xin, Rong-Tsun Wu, Pei-Lun Hsu, Lin-Yea Horng,
Hui-Ching Sung, Chien-Hsin Cheng, and Kuo-Hsiung Lee

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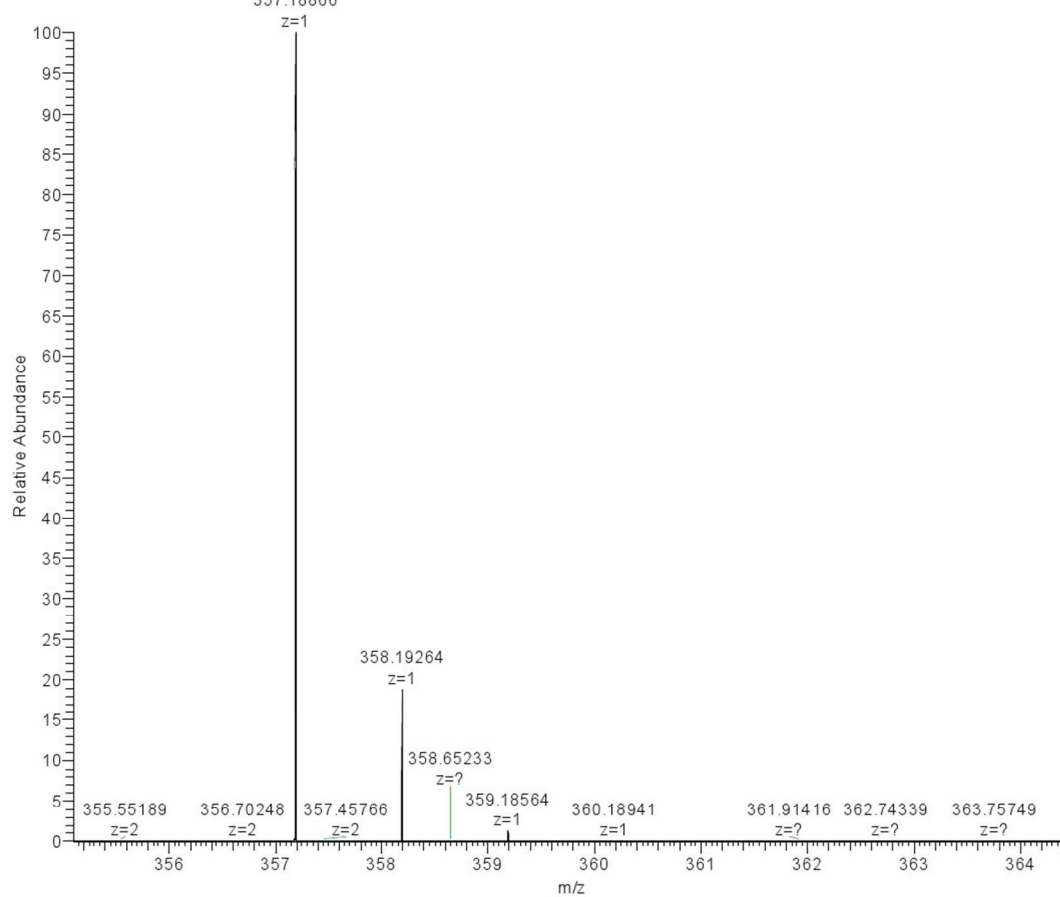


Compound 1- ^1H NMR

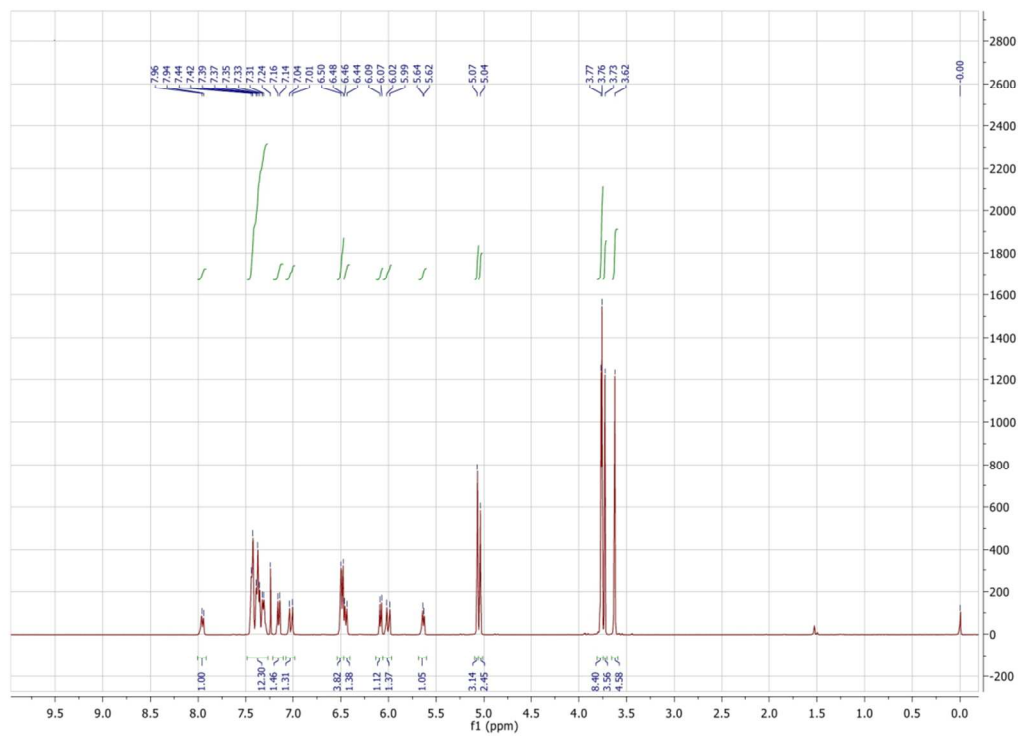


Compound 1- ^{13}C NMR

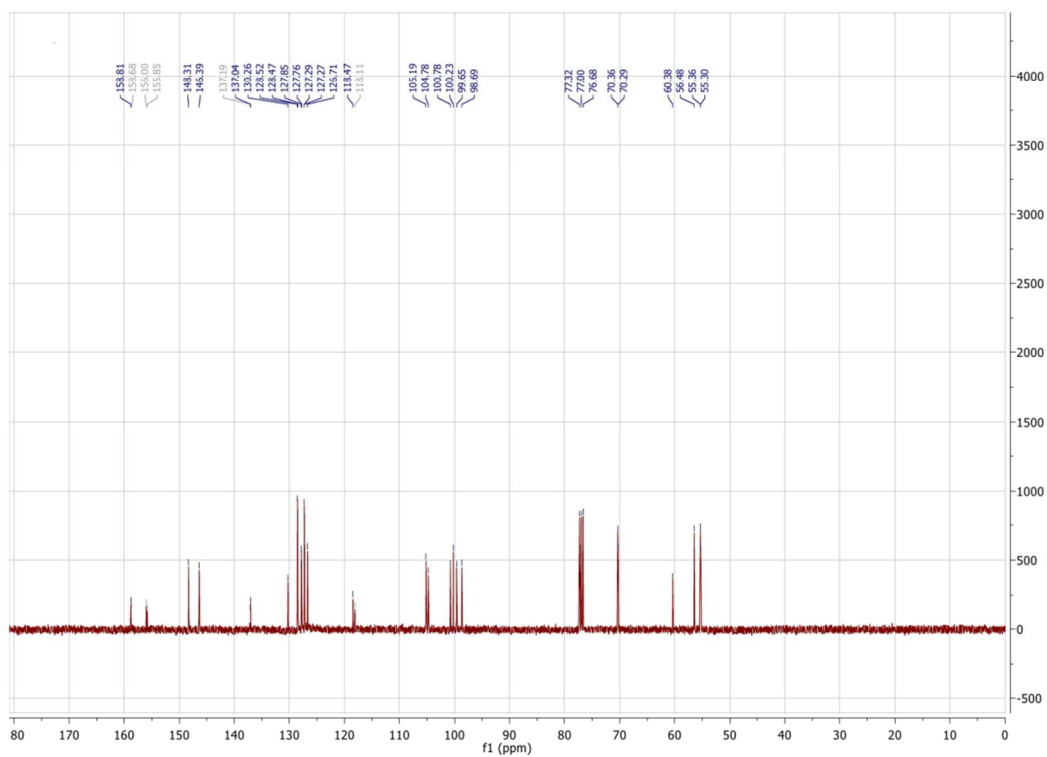
FTMS+ AAIMedicarpin_int1 500 ug-mL 50 uL-min #1-50 RT: 0.00-0.79 AV: 50 NL: 4.48E4
T: FTMS + p ESI Full ms [150.00-1400.00]
357.18866



Compound 1- HRMS

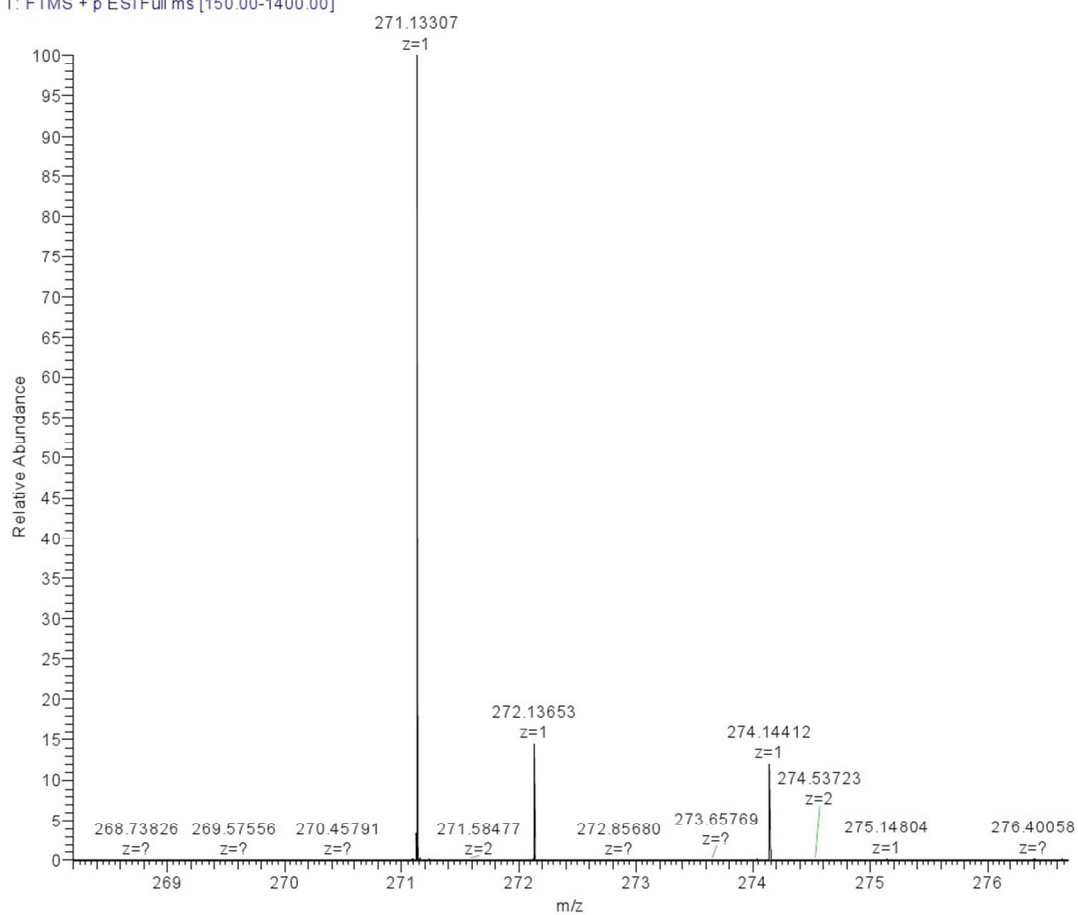


Compound 3- ^1H NMR

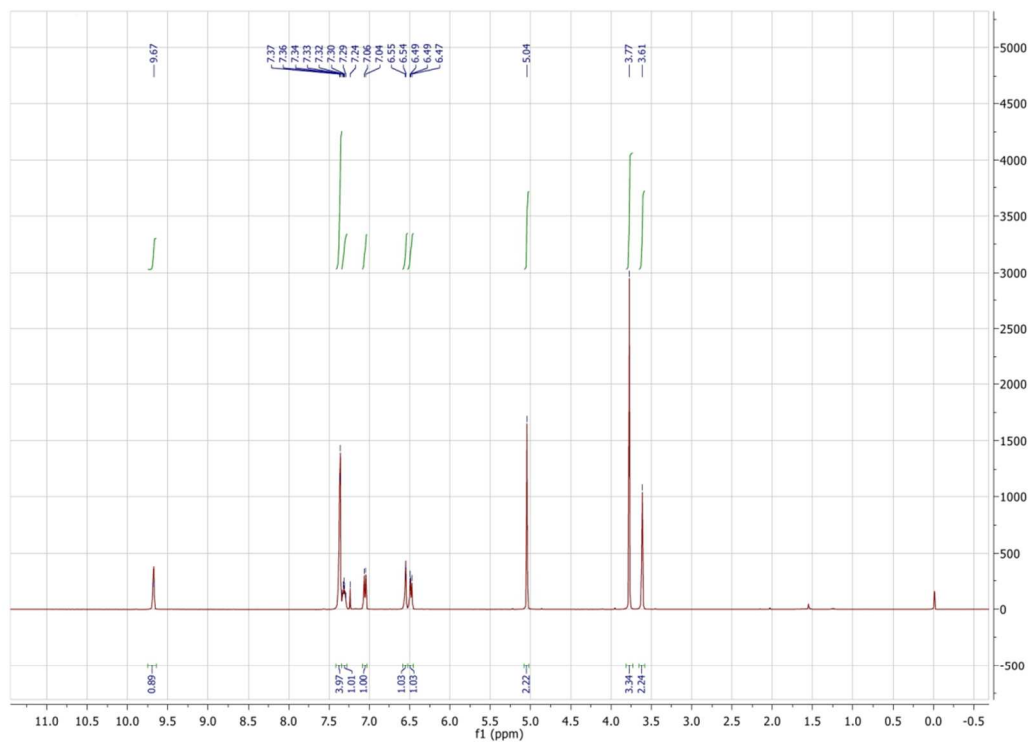


Compound 3- ^{13}C NMR

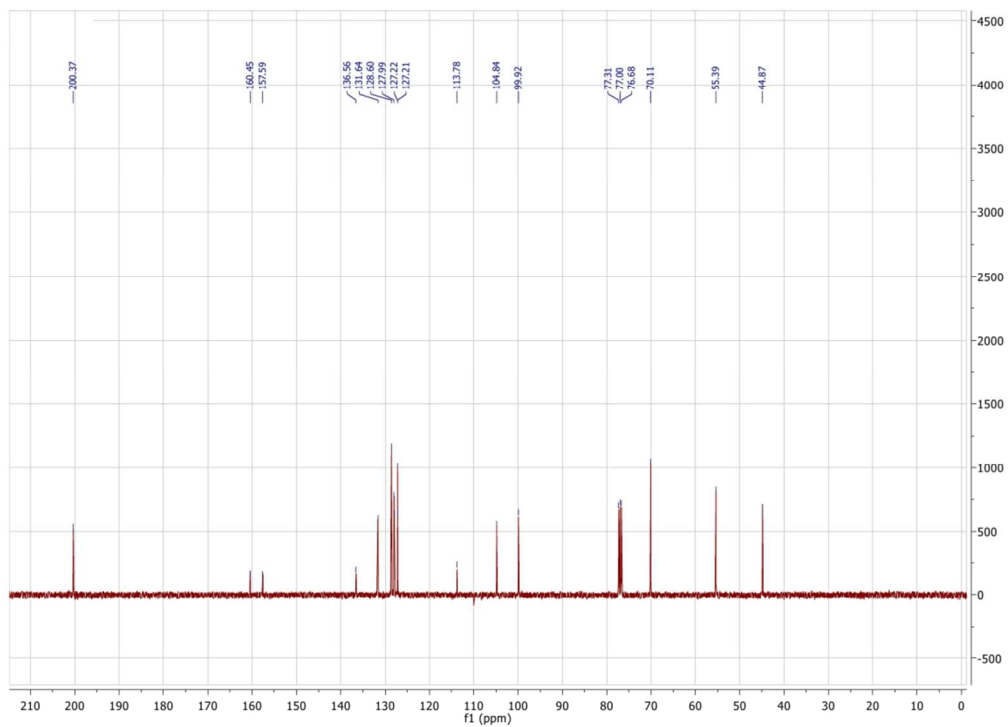
FTMS+ AA\Medicarpin_int4 500 ug-mL 50 uL-min #1-50 RT: 0.01-0.91 AV: 50 NL: 5.61E3
T: FTMS + p ESIFull ms [150.00-1400.00]



Compound 3-HRMS

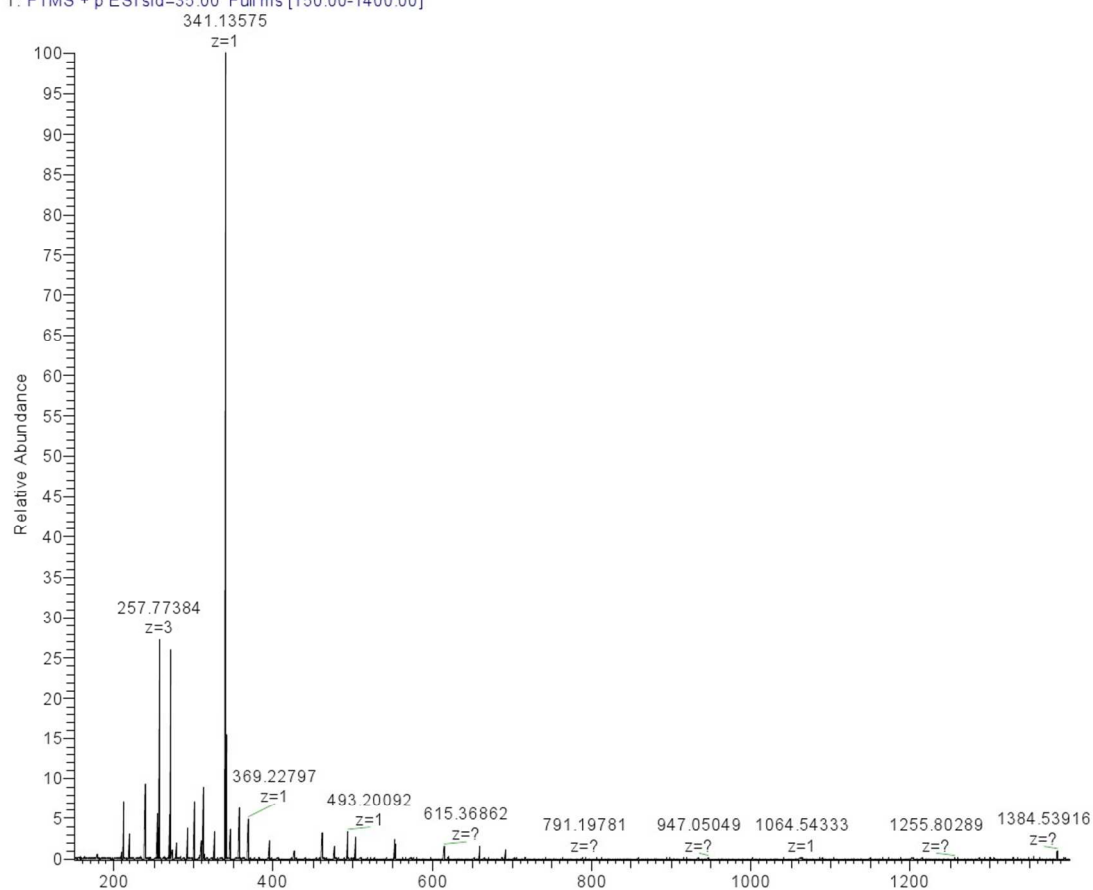


Compound 4- ¹H NMR

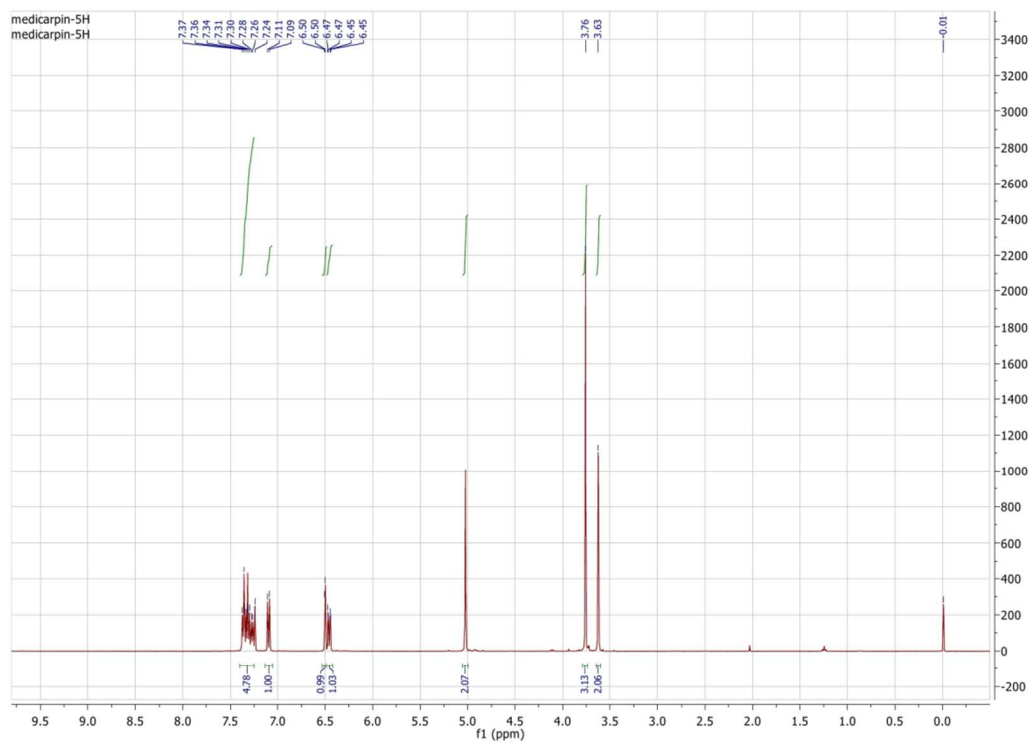


Compound 4- ¹³C NMR

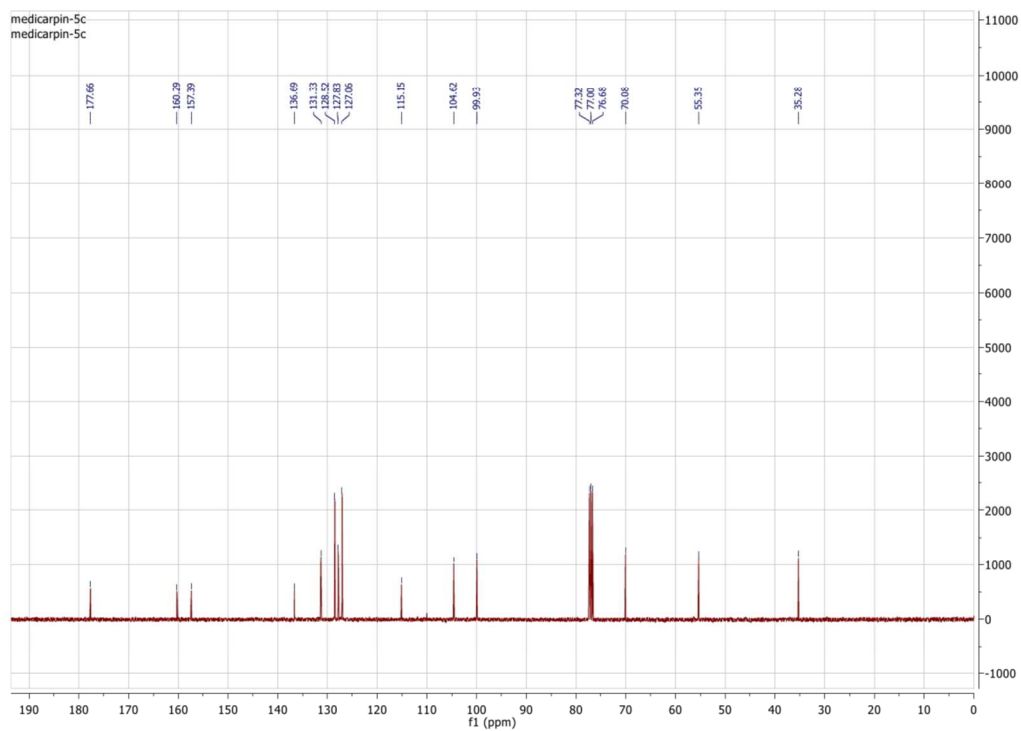
FTMS+ AAI Medicarpin_int3 500 ug-mL 50 uL-min #1-50 RT: 0.01-0.94 AV: 50 NL: 3.67E3
T: FTMS + p ESI sid=35.00 Full ms [150.00-1400.00]



Compound 4-HRMS

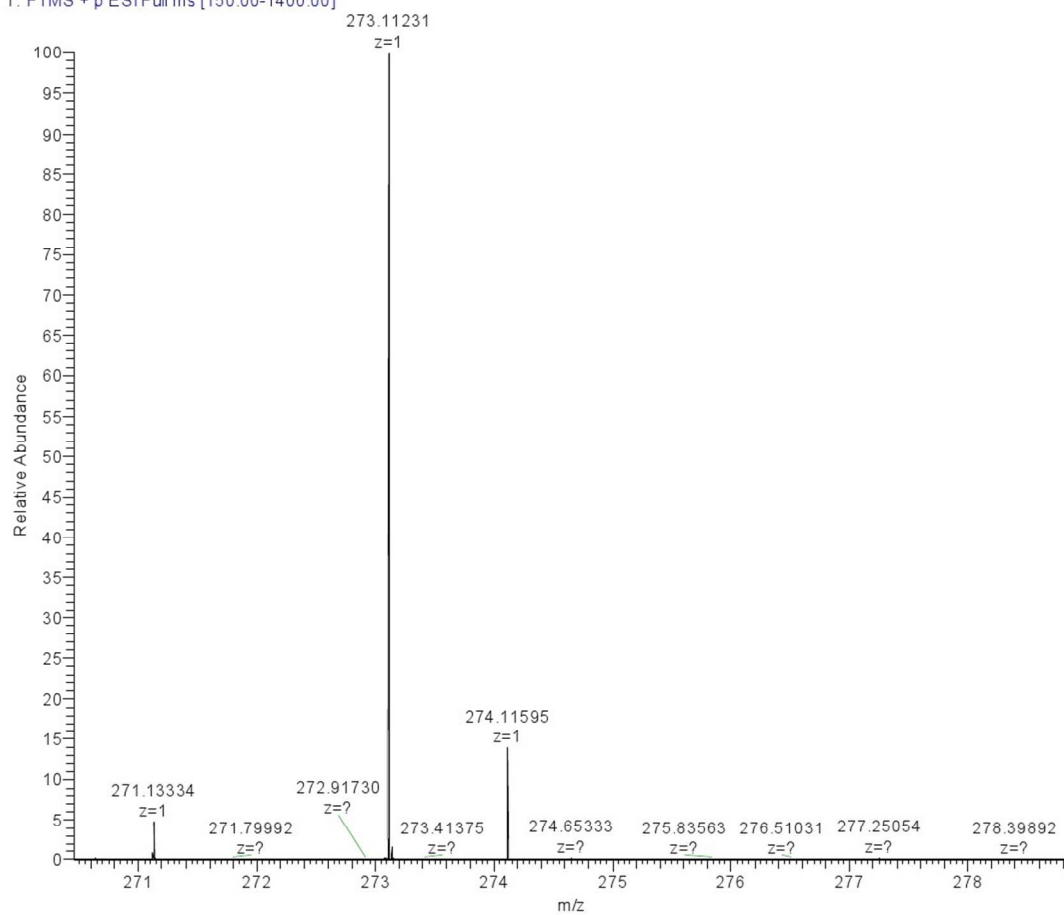


Compound 5- ^1H NMR

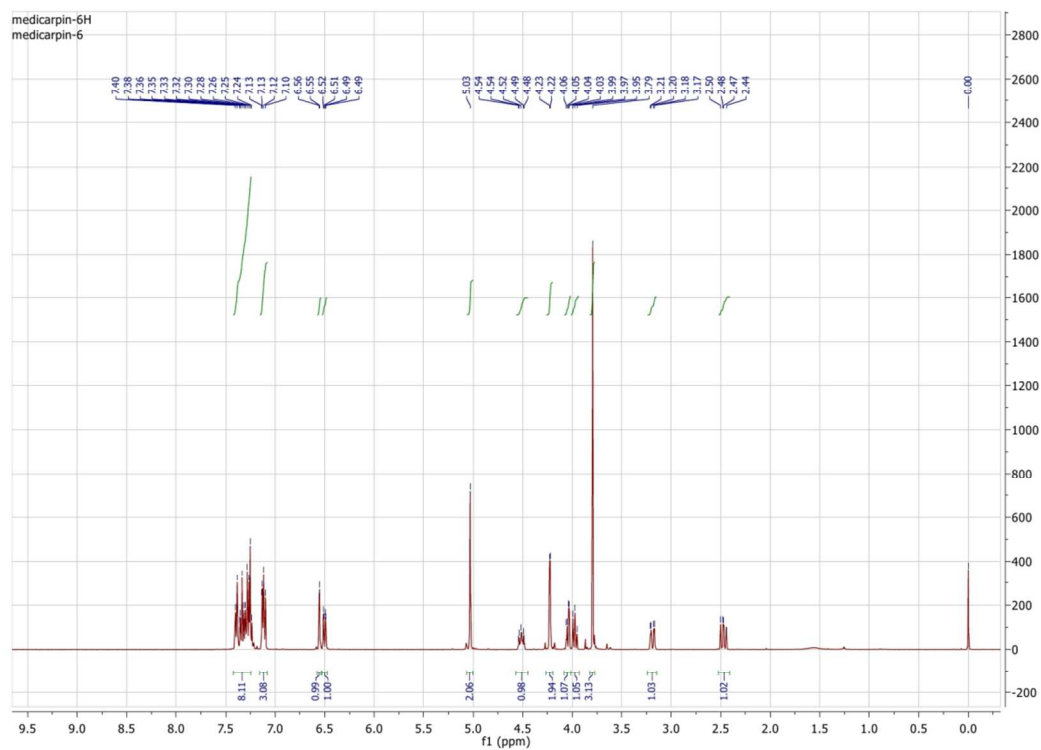


Compound 5- ^{13}C NMR

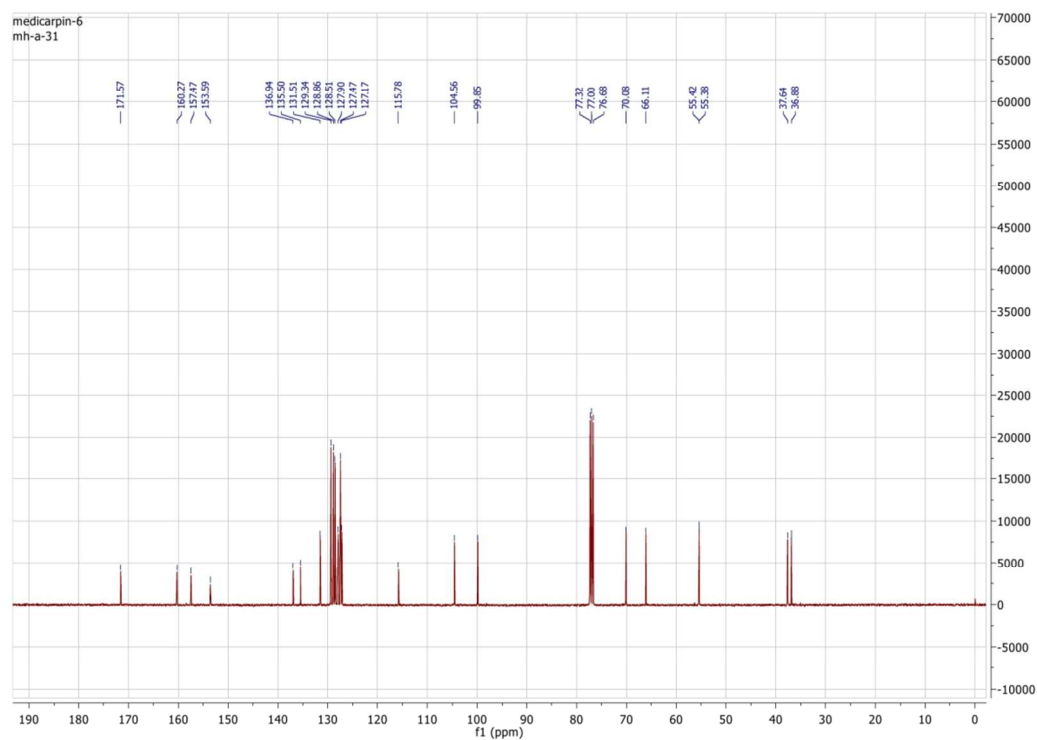
FTMS+ AAI Medicarpin_int5 500 ug-mL 50 uL-min #1-50 RT: 0.00-0.76 AV: 50 NL: 2.87E4
T: FTMS + p ESI Full ms [150.00-1400.00]



Compound 5-HRMS

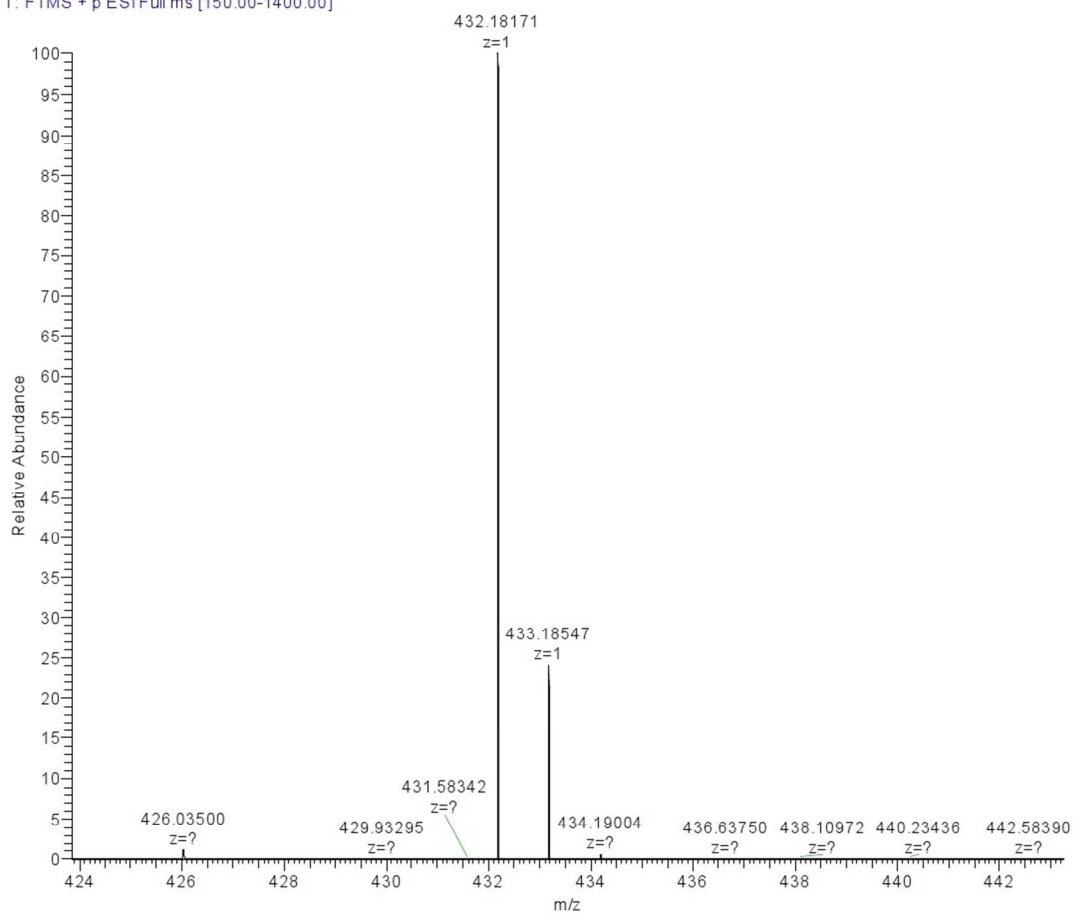


Compound 6- ^1H NMR

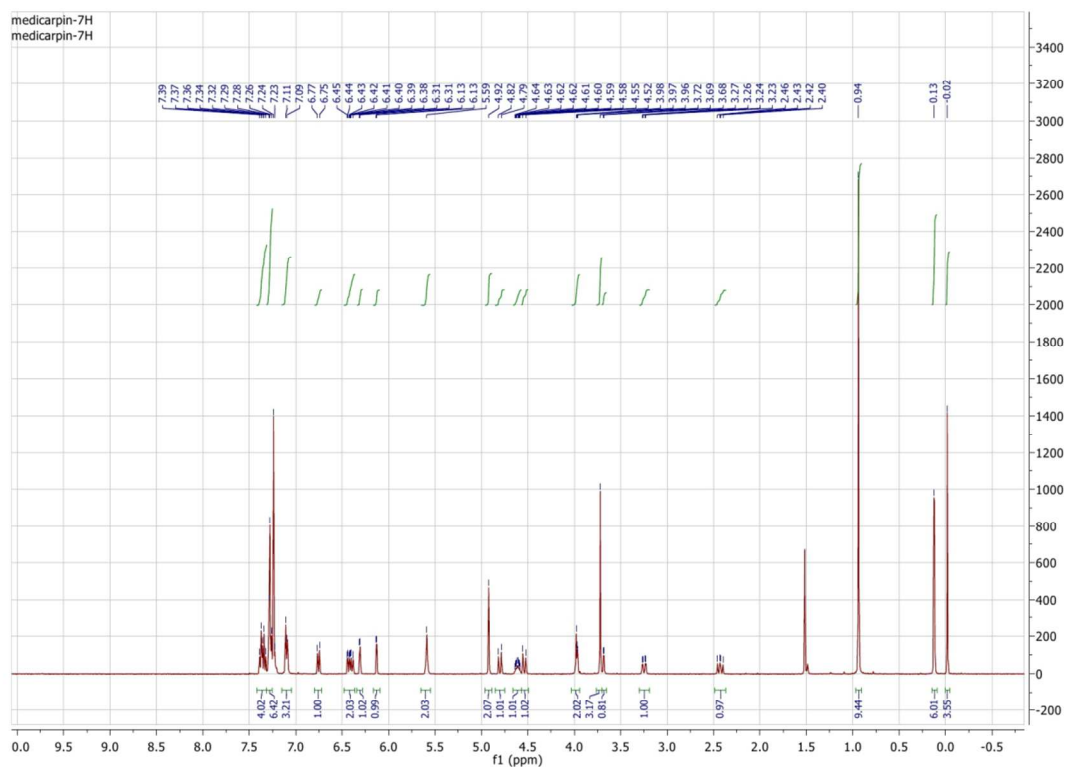


Compound 6- ^{13}C NMR

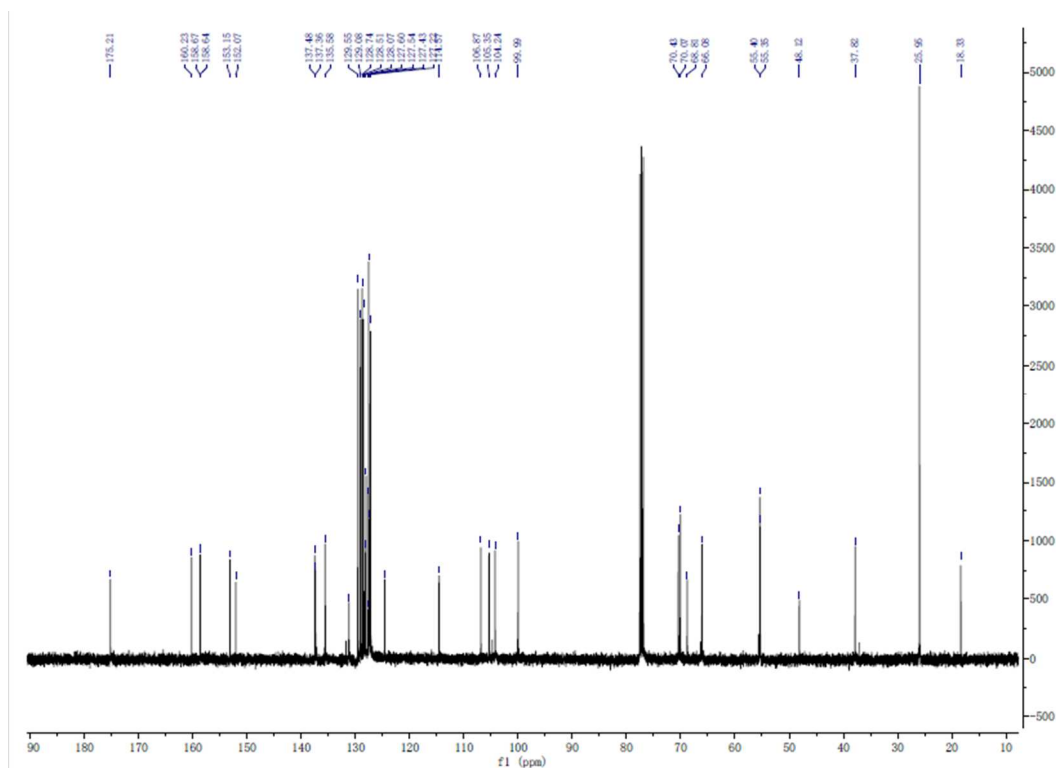
FTMS+ AAI Medicarpin_int6 500 ug-mL 50 uL-min #1-50 RT: 0.00-0.87 AV: 50 NL: 1.27E4
T: FTMS + p ESIFull ms [150.00-1400.00]



Compound 6-HRMS

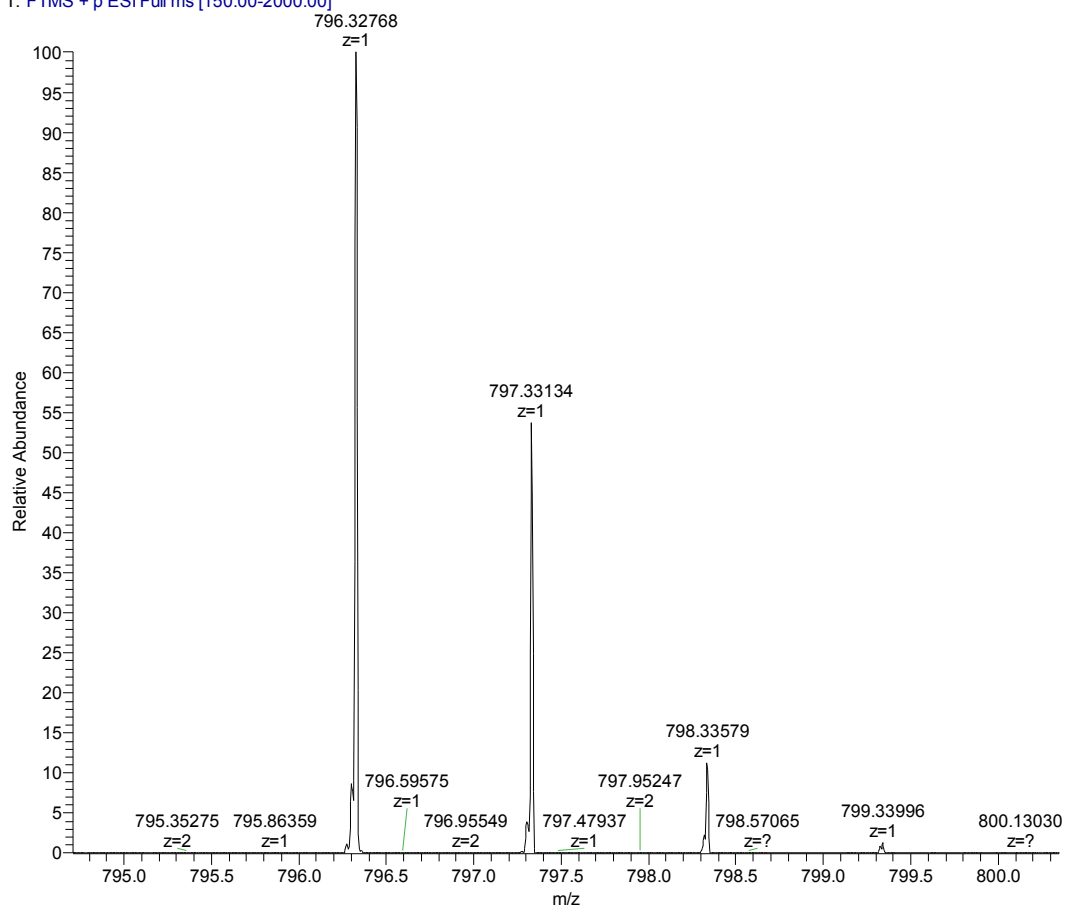


Compound 7 - ^1H NMR



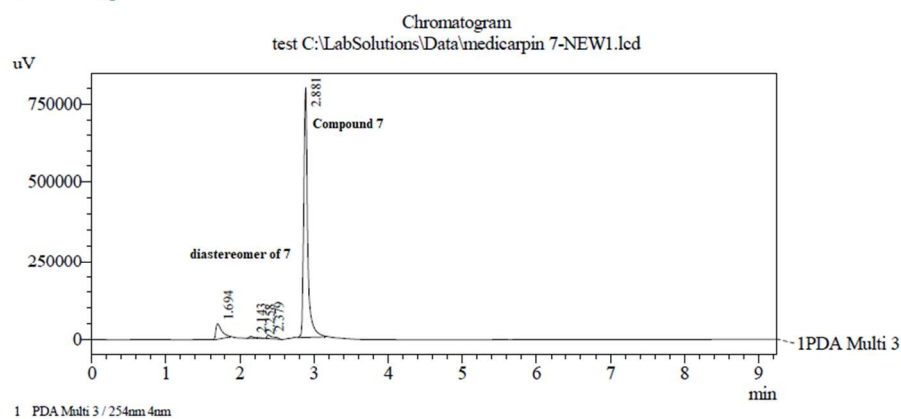
Compound 7- ^{13}C NMR

10516_AG_KLee_7 #11-100 RT: 0.24-1.57 AV: 90 NL: 4.11E6
T: FTMS + p ESI Full ms [150.00-2000.00]



Compound 7 - HRMS

<Chromatogram>

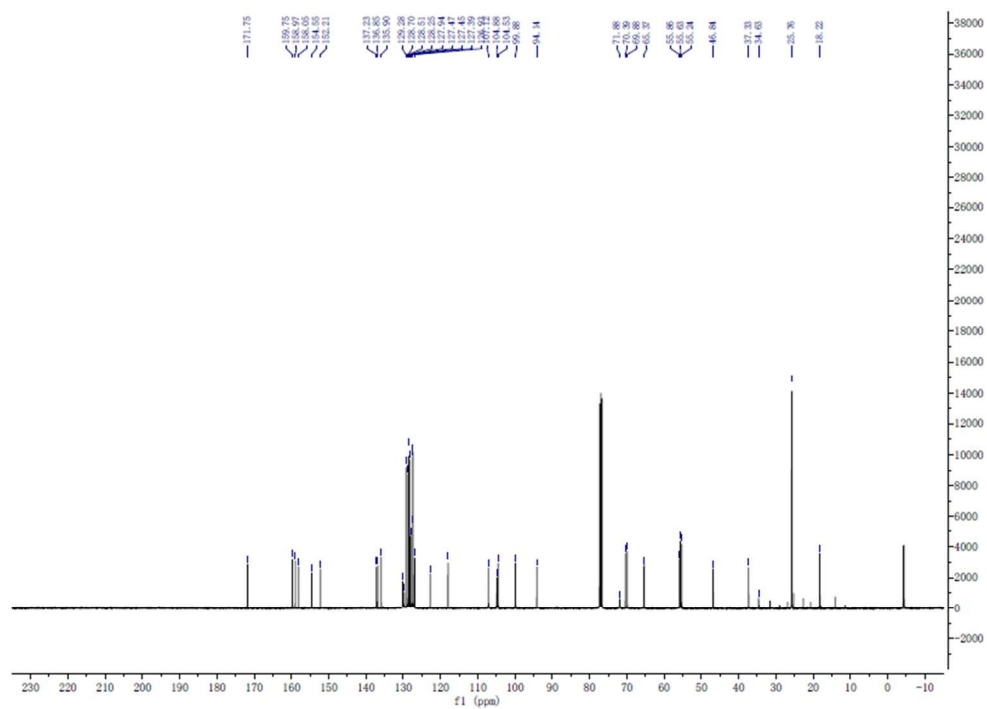
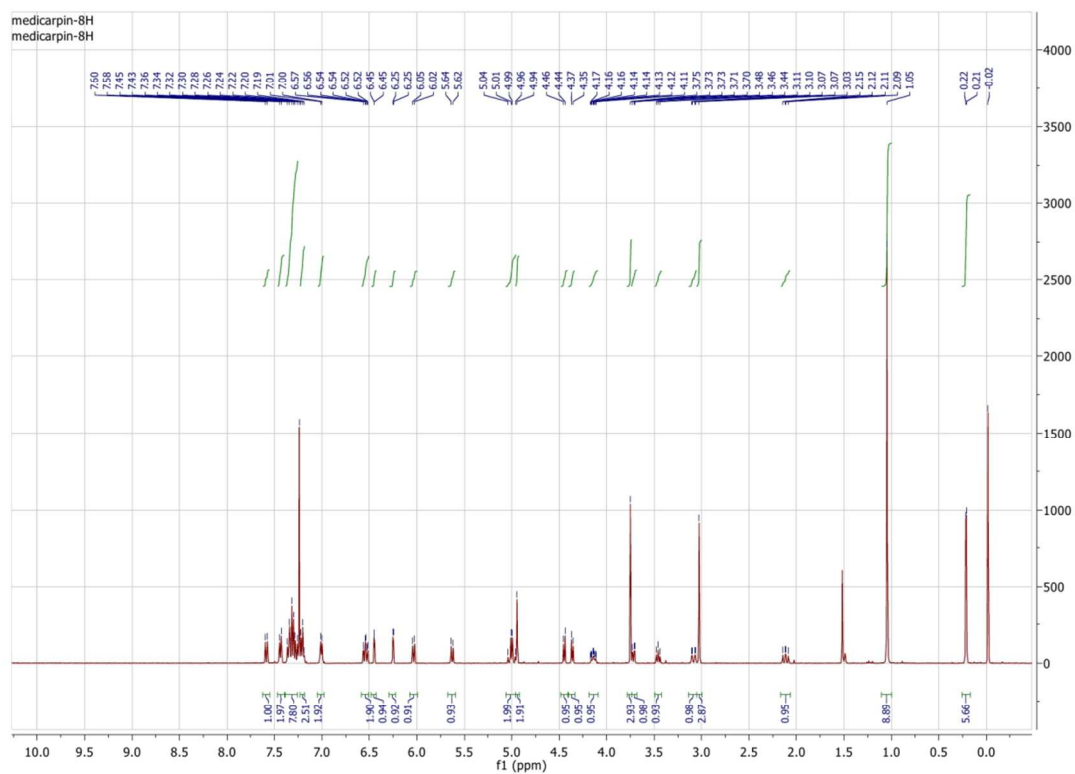


PeakTable

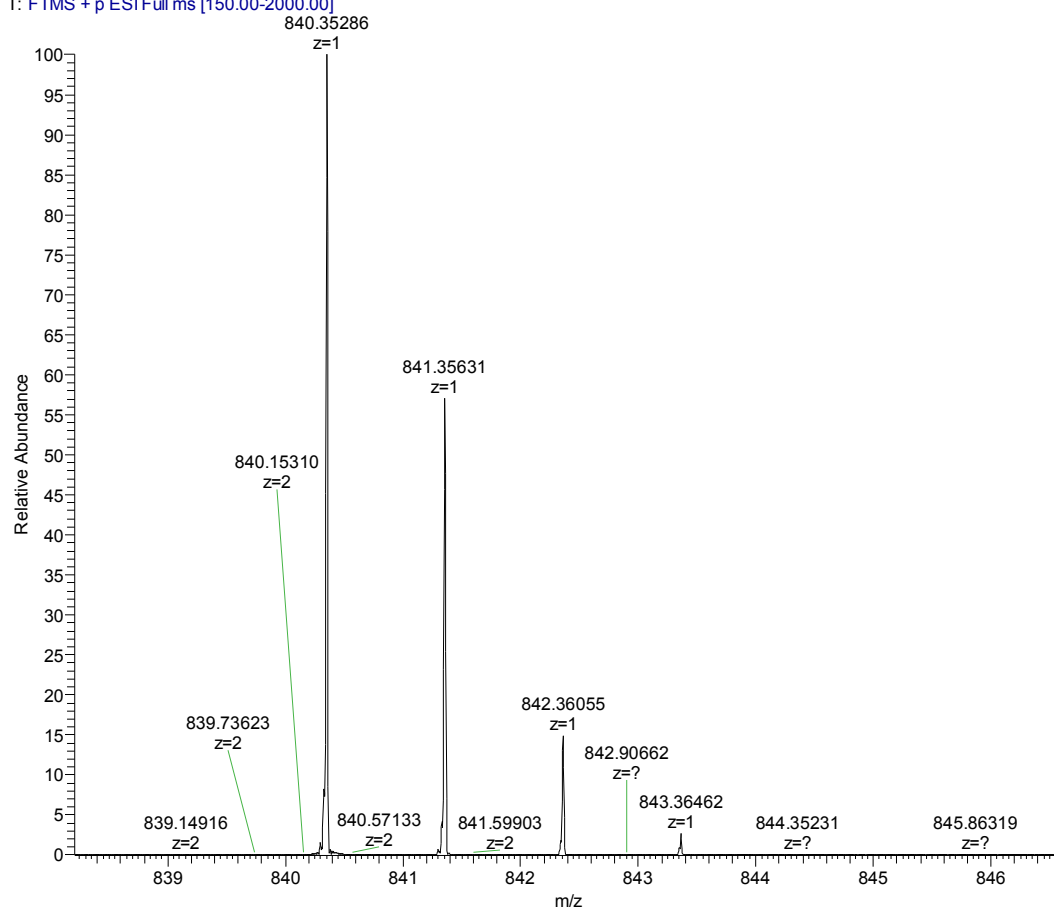
PDA Ch3 254nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	1.694	280079	49558	8.528	5.752
2	2.143	21458	5492	0.653	0.637
3	2.258	1708	977	0.052	0.113
4	2.379	70599	11124	2.150	1.291
5	2.881	2910561	794430	88.618	92.206
Total		3284406	861580	100.000	100.000

HPLC spectrum of compound 7 and its diastereomers

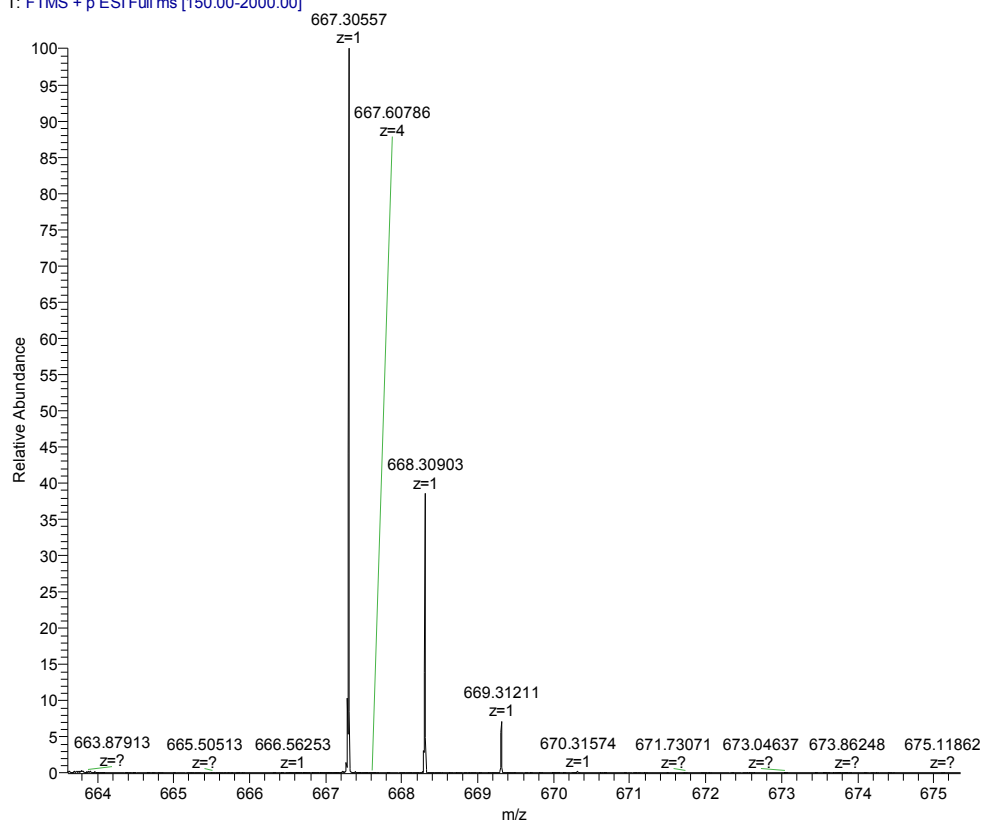


10516_AG_KLee_8pos #1-100 RT: 0.00-1.46 AV: 100 NL: 9.38E6
T: FTMS + p ESI Full ms [150.00-2000.00]

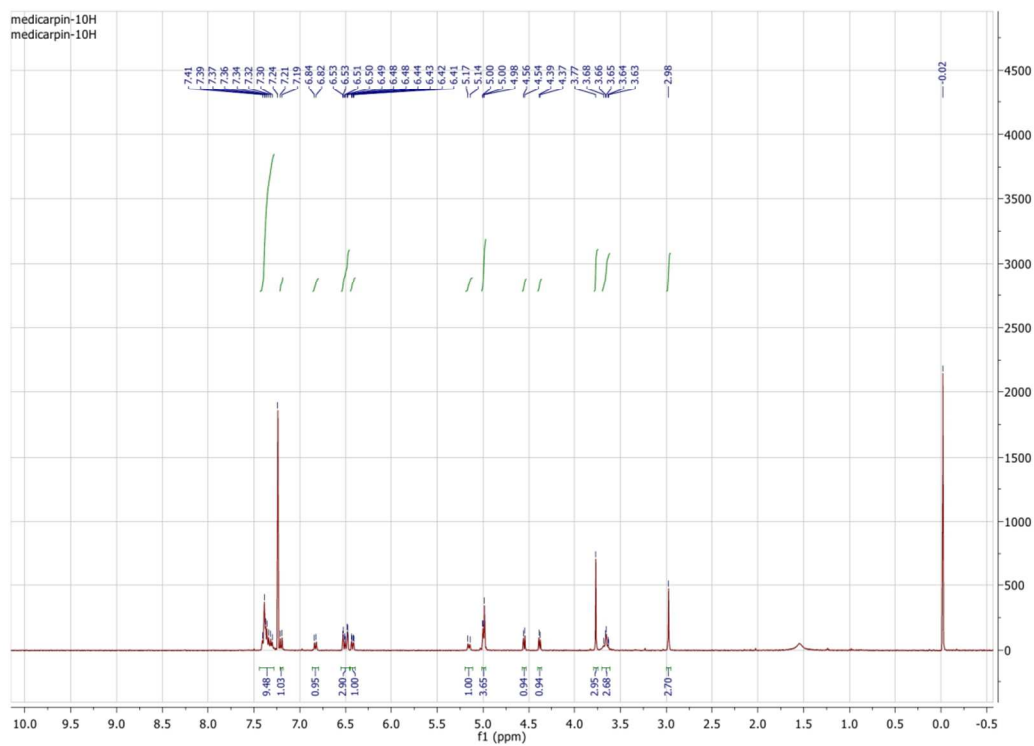


Compound 8 – HRMS

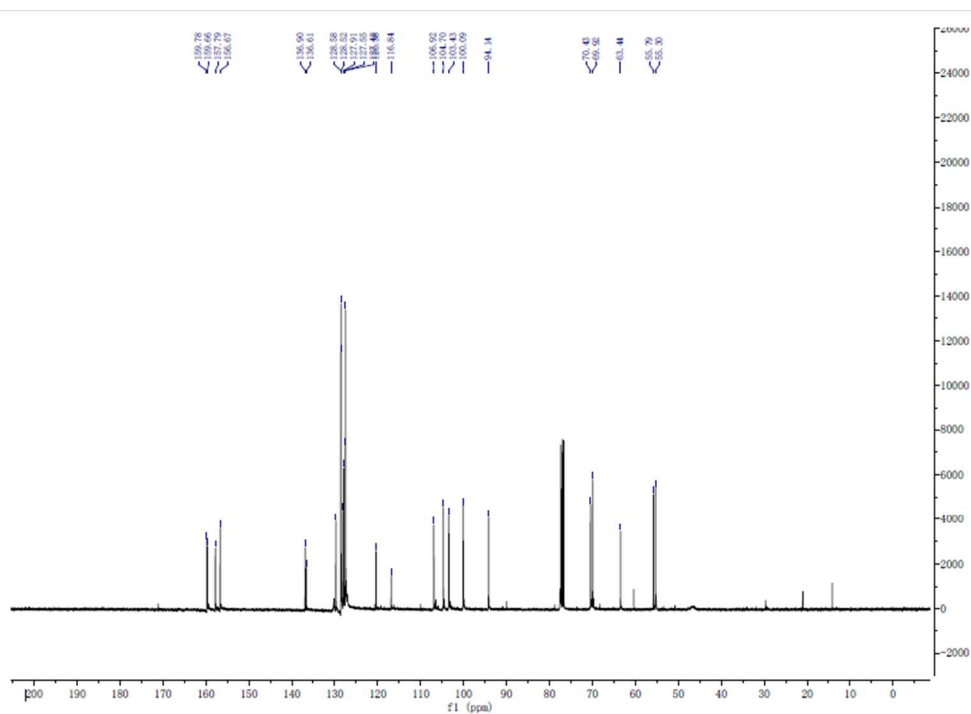
10516_AG_KLee_9pos #1-100 RT: 0.01-1.47 AV: 100 NL: 4.22E6
T: FTMS + p ESI Full ms [150.00-2000.00]



Compound 9 – HRMS

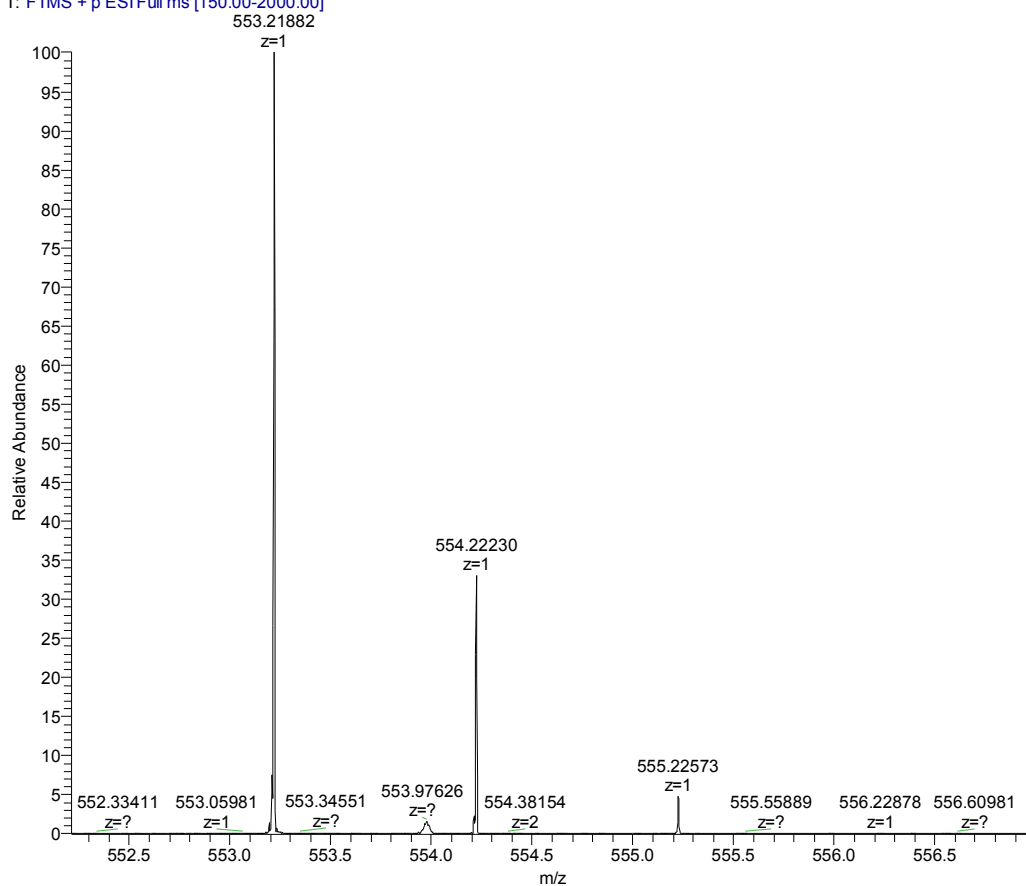


Compound 10 - ^1H NMR

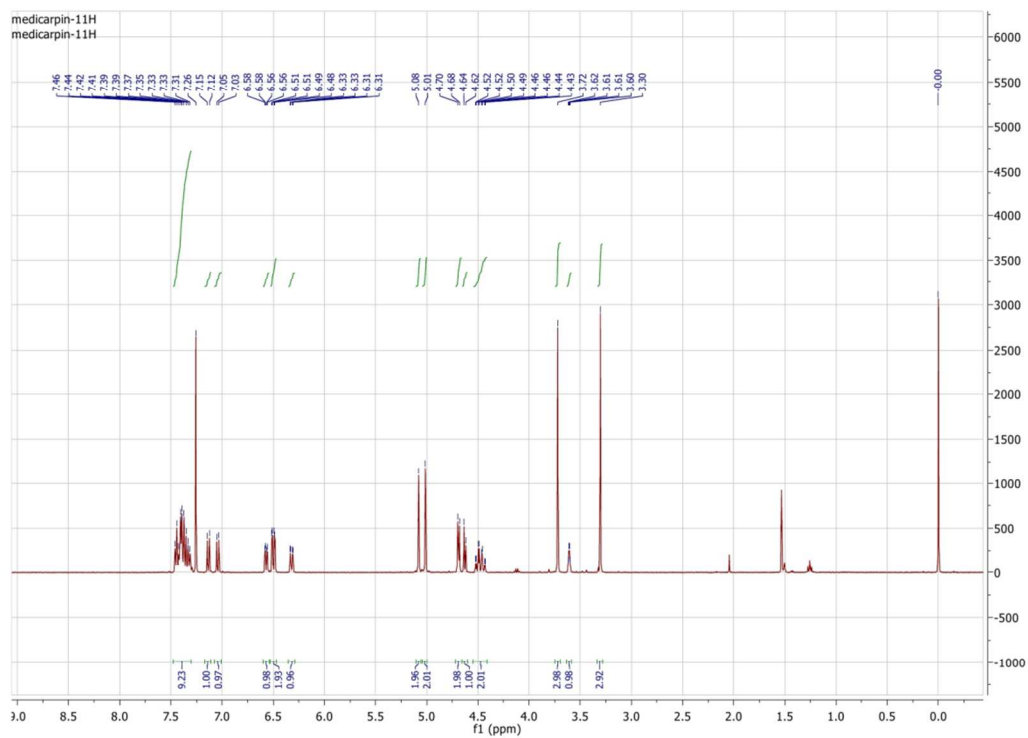


Compound 10- ^{13}C NMR

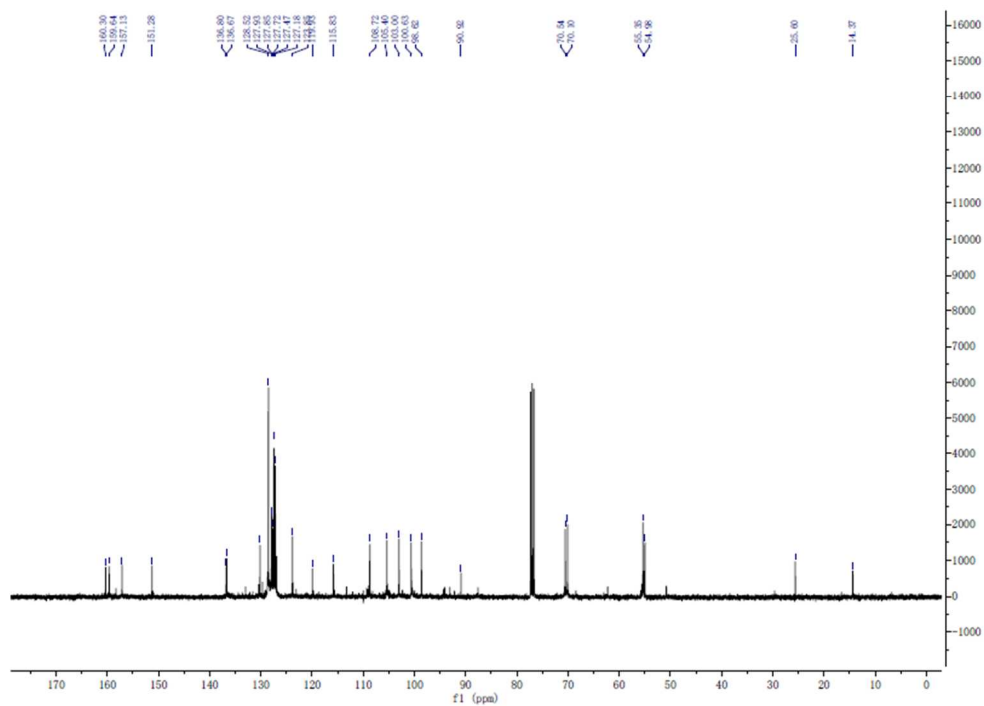
10516_AG_KLee_10pos #1-100 RT: 0.00-1.46 AV: 100 NL: 4.41E6
T: FTMS + p ESI Full ms [150.00-2000.00]



Compound 10 – HRMS



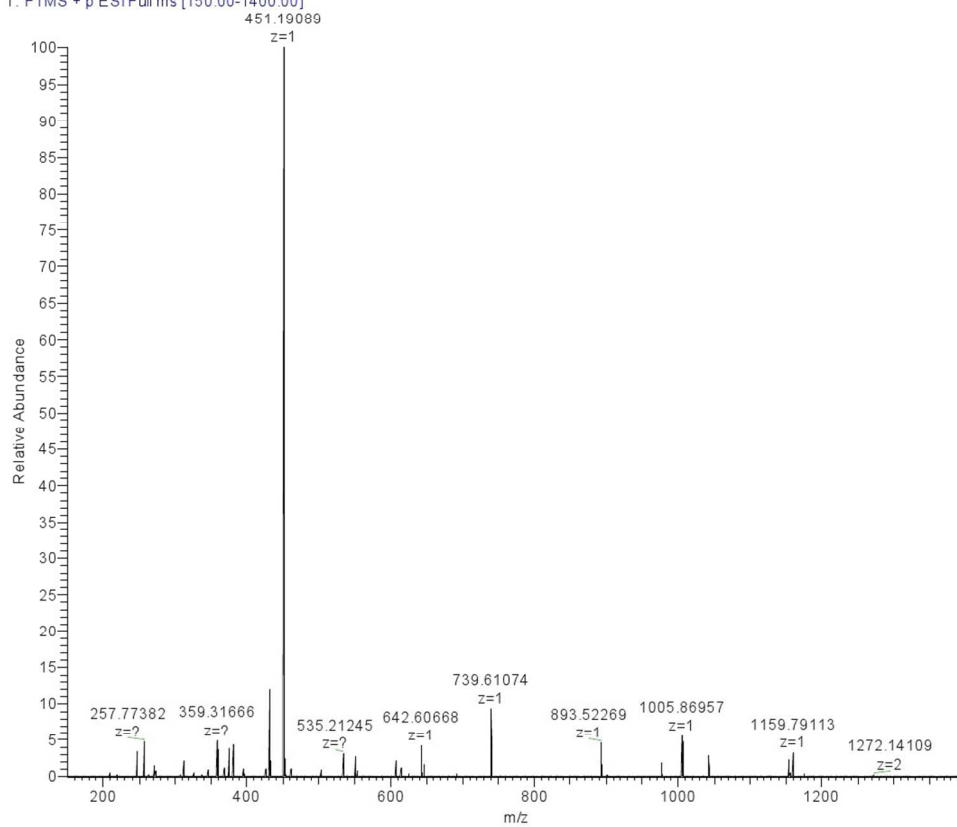
Compound 11 - ¹H NMR



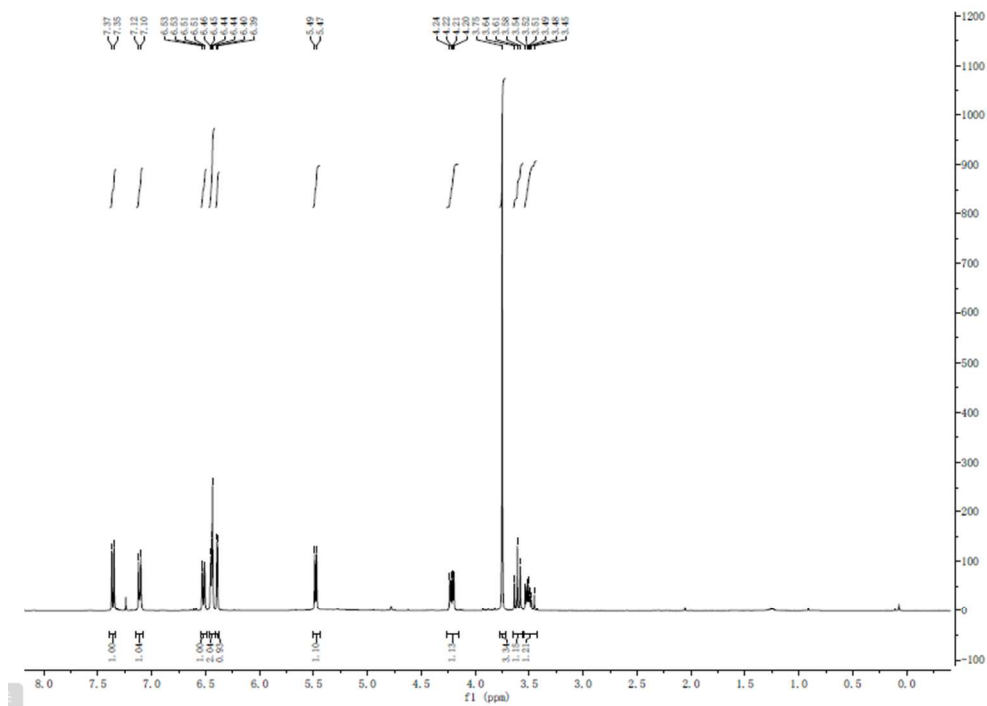
Compound 11- ¹³C NMR

Sample ID: medicarpin int 11

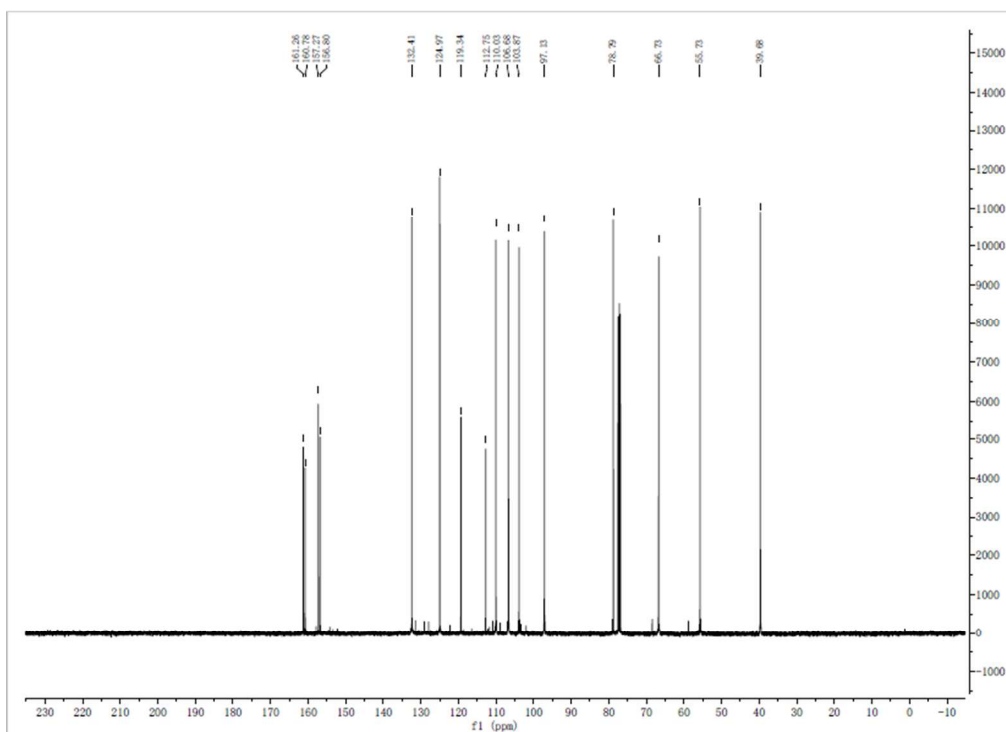
FTMS+ AA|Medicarpin_int11 500 ug-mL 50 uL-min #1-50 RT: 0.01-0.81 AV: 50 NL: 2.99E4
T: FTMS + p ESI Full ms [150.00-1400.00]



Compound 11 - HRMS

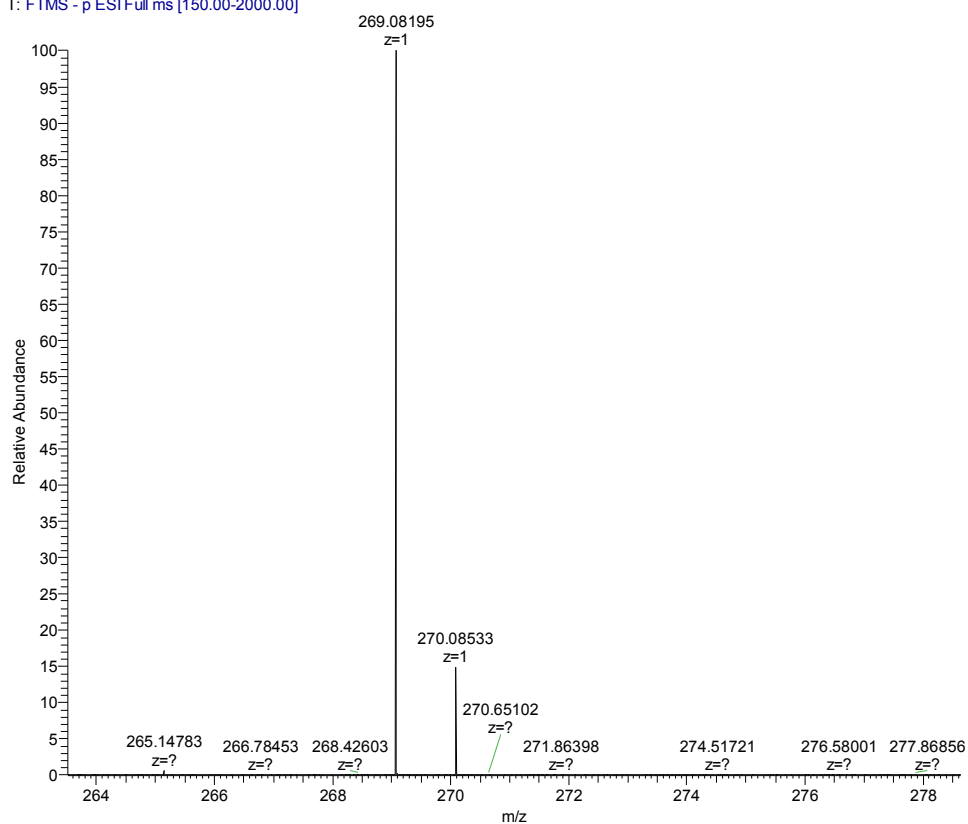


(+)-Medicarpin - ^1H NMR



(+)-Medicarpin - ^{13}C NMR

10516_AG_KLee_12neg #1-100 RT: 0.01-1.48 AV: 100 NL: 4.04E5
T: FTMS - p ESI Full ms [150.00-2000.00]



(+)-Medicarpin – HRMS