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Supplementary file

Chemical Characterisation, Antidiabetic, Antibacterial, and In silico Studies for Different Extracts of *Haloxylon stocksii* (Boiss.) Benth: A Promising Halophyte

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Table S1: Safety Profile of LC-MS identified compound

Compound Name	**Toxicity profile**
N-Methyltyramine	LD_{50} = 780 mg/kg (Intraperitoneal) LD_{50} = 275 mg/kg (Intravenous)
Acetophenone	Safe, Hypnosis occur at 0.4 to 0.5 g/kg (Intravenous)
Hordenine	Harmful if swallowed, skin sensitization
Fraxetin	NA
6,8-dihydroxy-7-methoxy-3-methyl-1H-isochromen-1-one	NA
Nor-3-methylfentanyl	NA
Moupinamide	Very toxic to aquatic life
2-(2,6-dimethoxyphenyl)-5,6-dimethoxy-4H-chromen-4-one	NA
Piperine	LD_{50} = 34 mg/kg (Rats, Intraperitoneal) LD_{50} = 71 mg/kg (Mice, Intravenous)
Tris(2-butoxyethyl) phosphate	No skin sensitization
Acetyl tributyl citrate	No skin sensitization
Hexadecanamide	May cause irritation
1-Palmitoylglycerol	May cause irritation
(1S)-Tricyclo[7.3.1.0~2,7~]tridec-2(7)- en-13-one	NA
Stearamide	Cough and redness to the skin
Erucamide	Myocardial granulomas, necrosis, and lesions
N,N-Dimethylaniline	LD_{50} = 50 mg/kg (Oral)

"NA" No toxicity data is available in https://pubchem.ncbi.nlm.nih.gov/ database.

Table S2: α-amylase inhibition and α-glucosidase inhibition **of** *Haloxylon stocksii*

Sample Name	**α-amylase inhibition**	**α-glucosidase inhibition**
AMHS	65.78 ± 3.19^{b}	59.91 ± 4.16^{b}
ADHS	42.64 ± 1.62^{d}	38.03 ± 2.25^{d}
RMHS	58.82 ± 2.92^{c}	53.41 ± 5.64^{c}
RDHS	44.47 ± 1.22^{d}	32.50 ± 0.85^{e}
Acarbose	79.58 ± 4.28^{a}	74.27 ± 6.66^{a}

"AMHS" aerial parts methanolic *H. stocksii* extract, "ADHS" Aerial parts dichloromethane *H. stocksii* extract, "RMHS" roots methanolic *H. stocksii* extract, and "RDHS" roots dichloromethane *H. stocksii* extract; the superscripts a, b, c, d, and e represent significant difference ($p<0.05$)

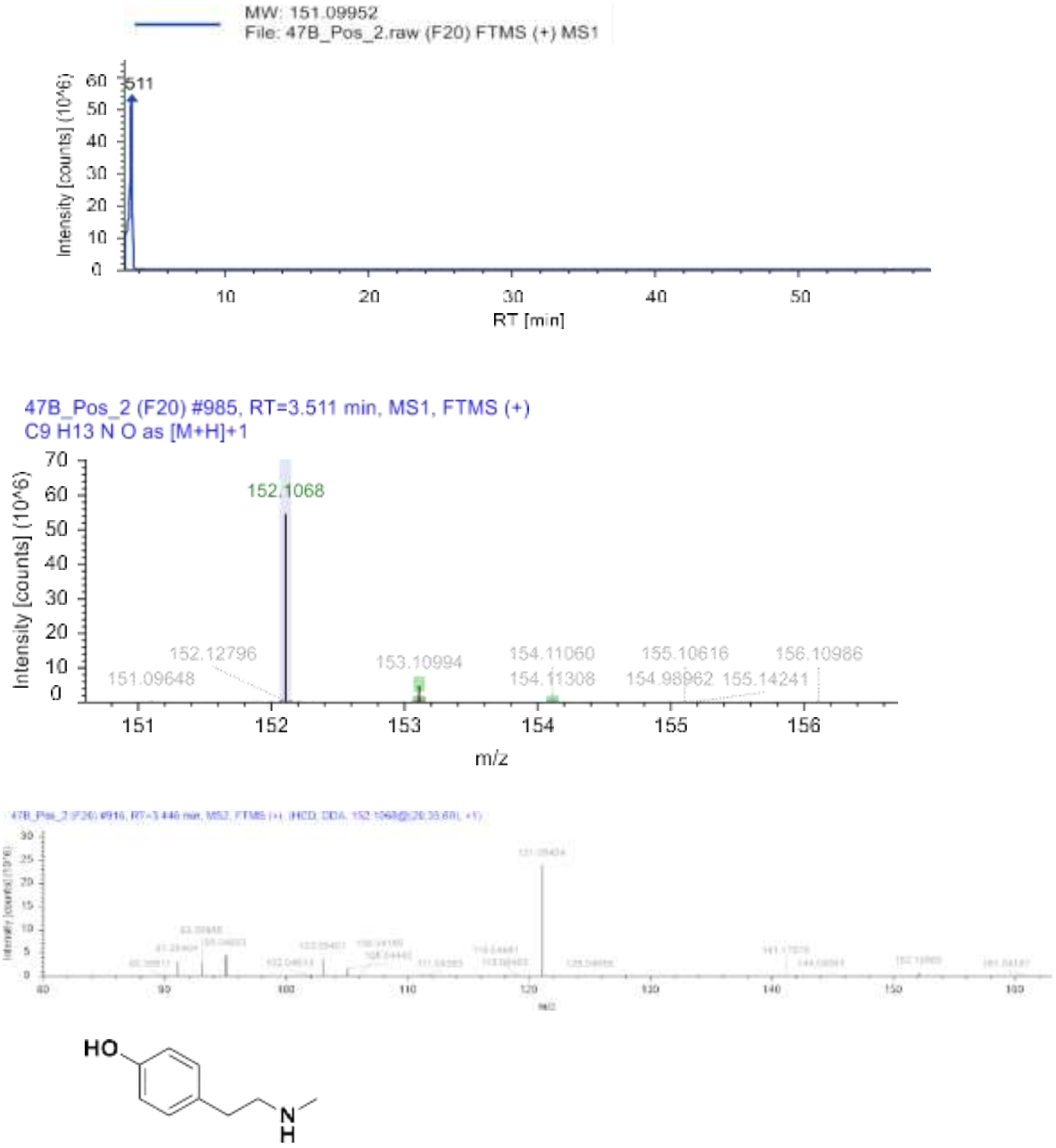


Figure S1: Retention time peak, fragmentation pattern and chemical structure of N-Methyltyramine

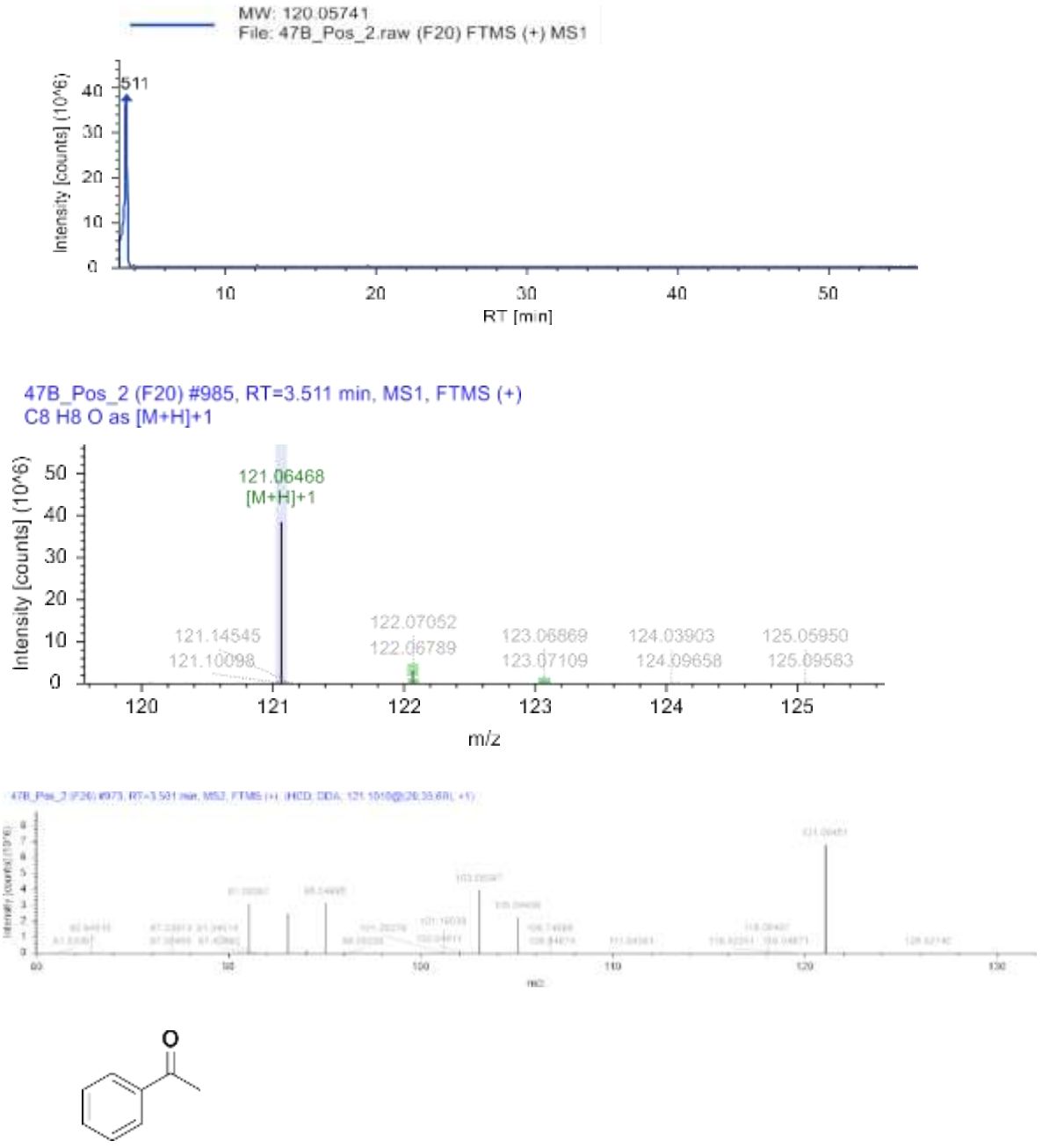


Figure S2: Retention time peak, fragmentation pattern and chemical structure of Acetophenone

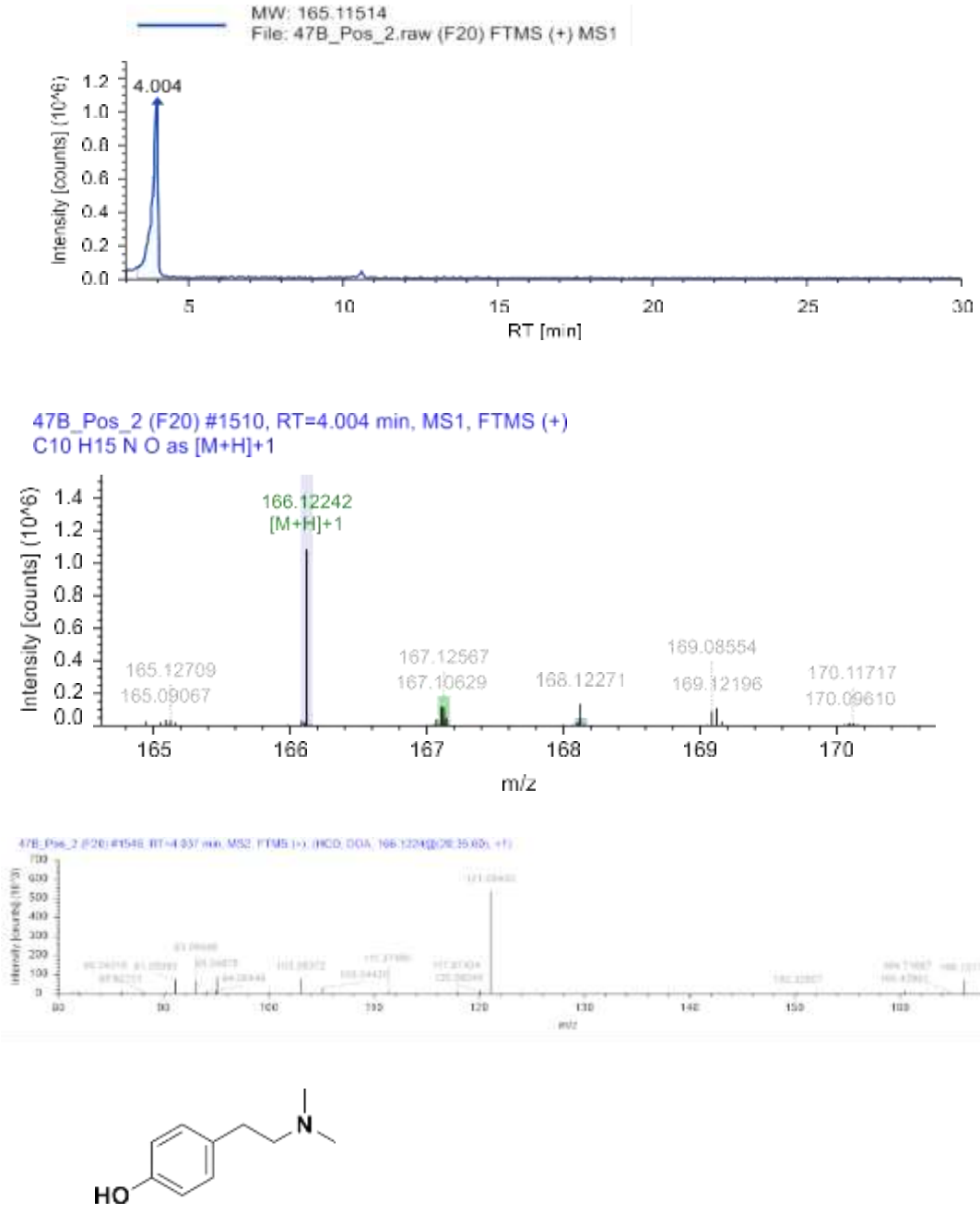
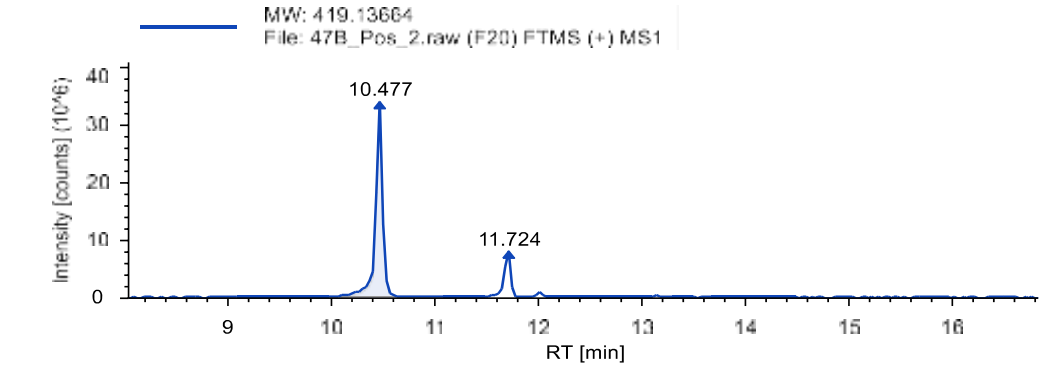
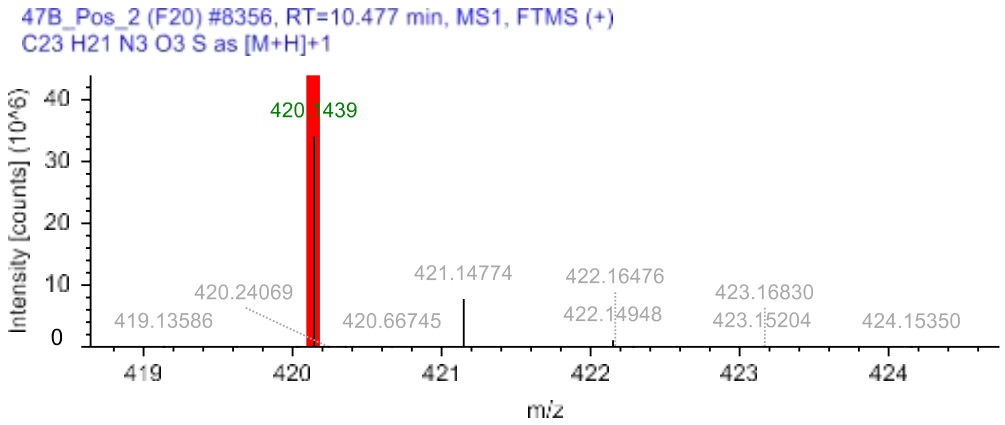
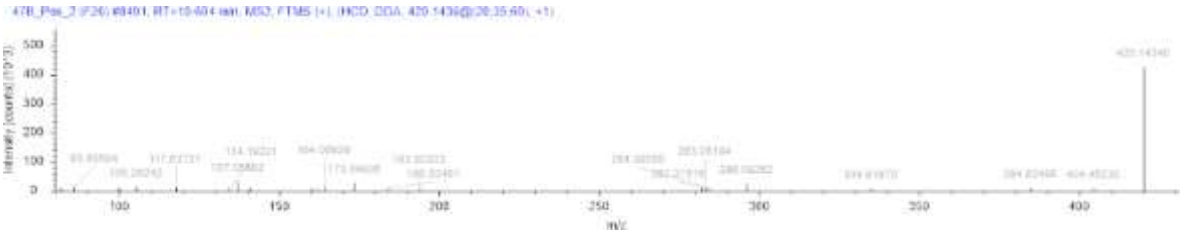


Figure S3: Retention time peak, fragmentation pattern and chemical structure of Hordenine







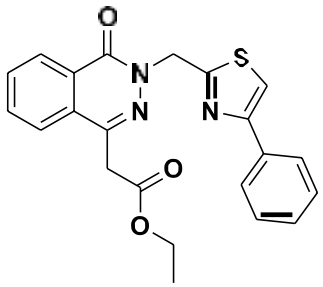


Figure S4: Retention time peak, fragmentation pattern and chemical structure of Ethyl 2-(3-{[4-(4-methylphenyl)-1,3-thiazol-2-yl]methyl}-4-oxo-3,4-dihydrophthalazin-1-yl)acetate

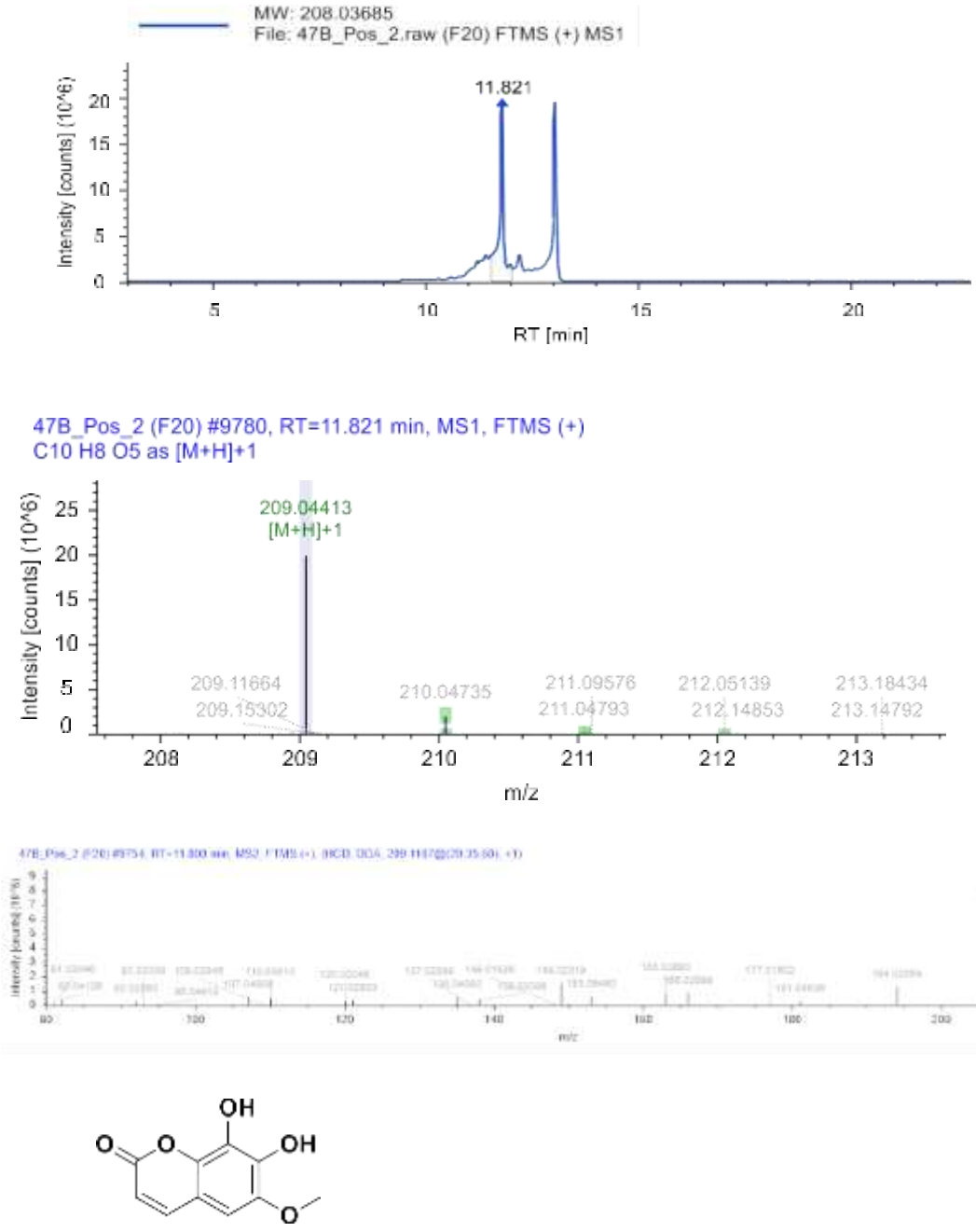


Figure S5: Retention time peak, fragmentation pattern and chemical structure of Fraxetin

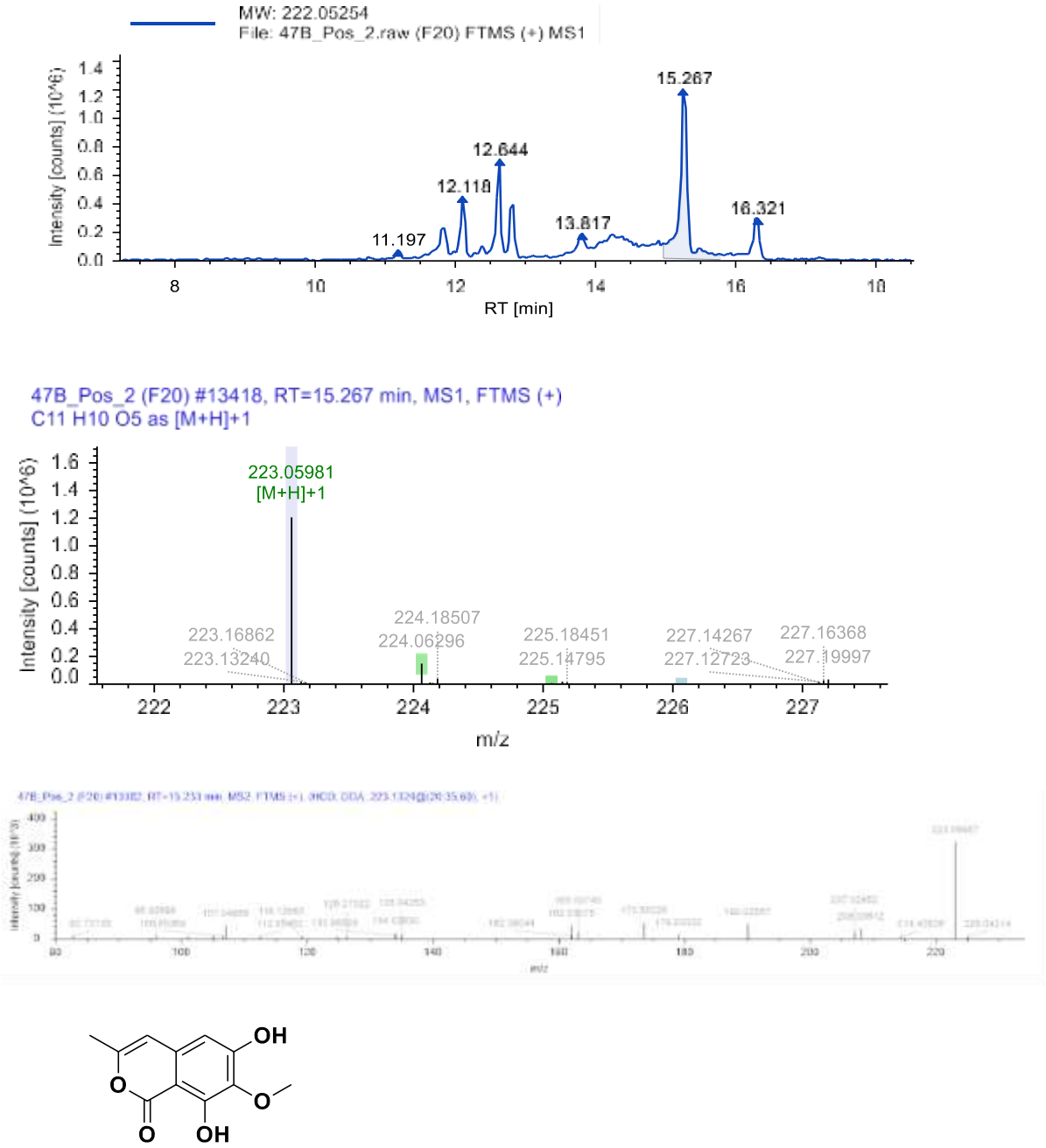


Figure S6: Retention time peak, fragmentation pattern and chemical structure of 6,8-dihydroxy-7-methoxy-3-methyl-1H-isochromen-1-one

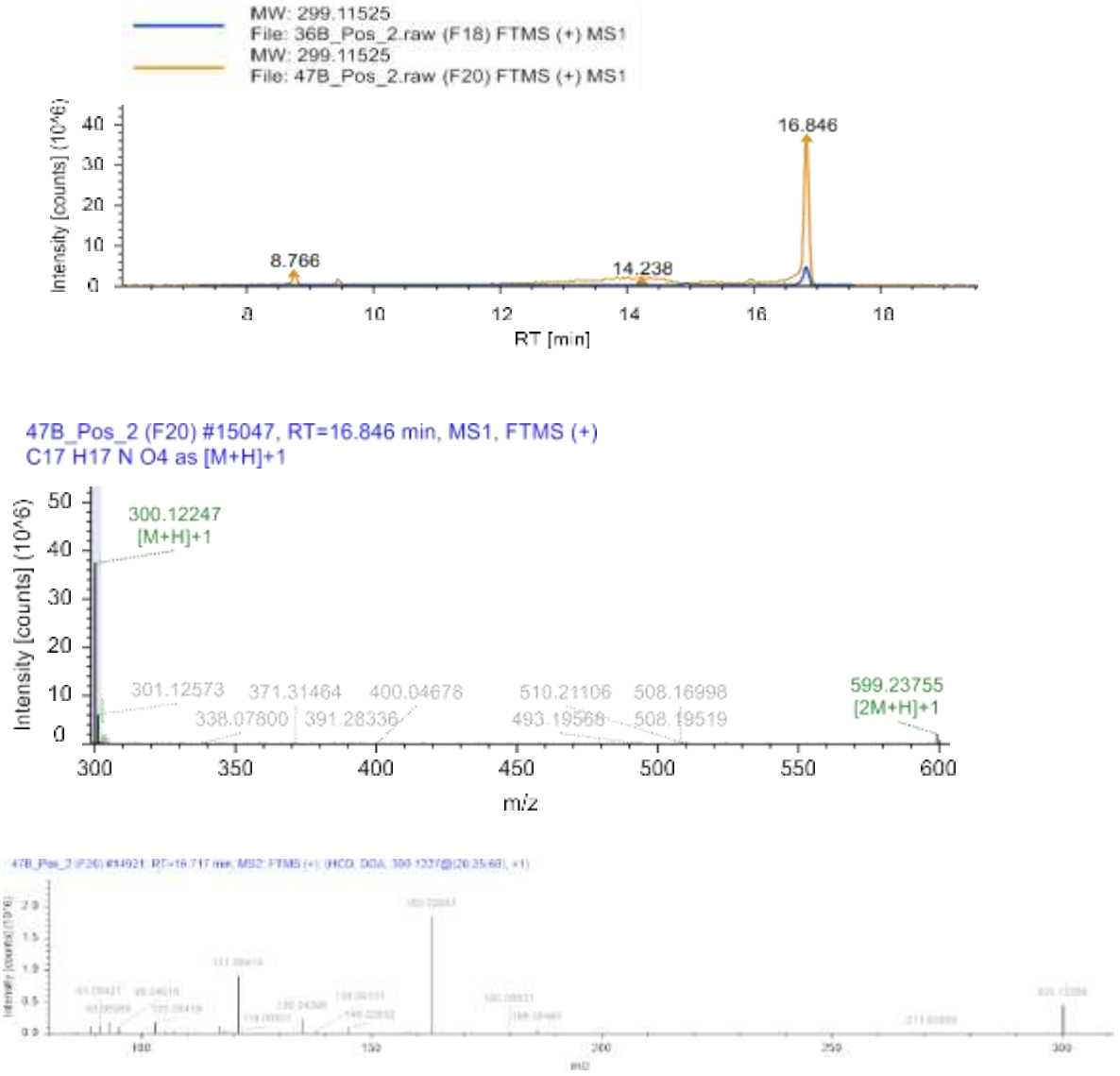
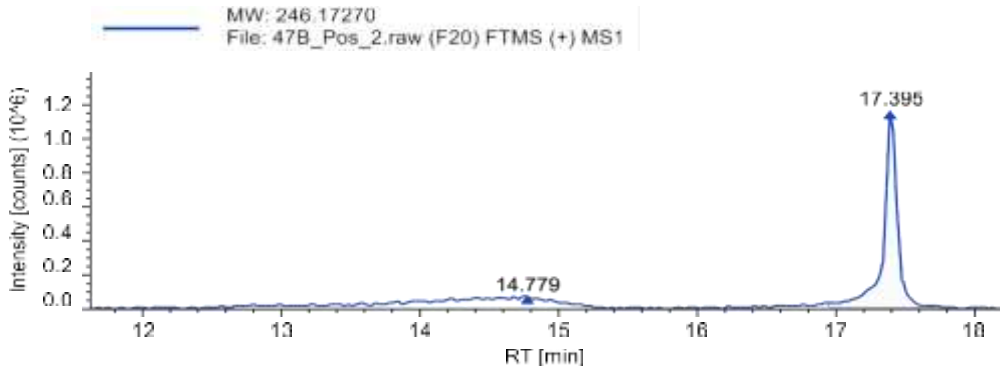


Figure S7: Retention time peak, and fragmentation pattern of Unknown compound (not identified with library)



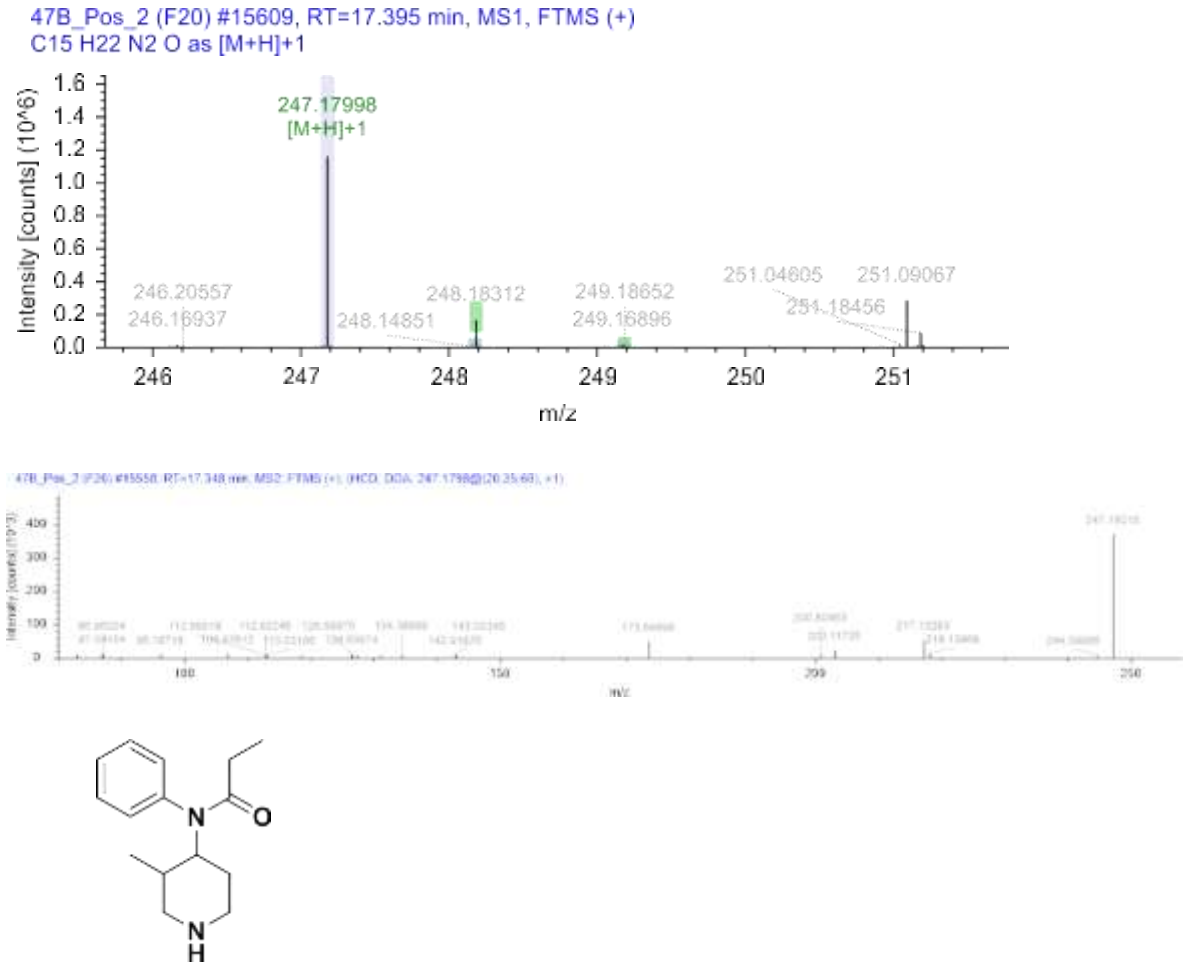
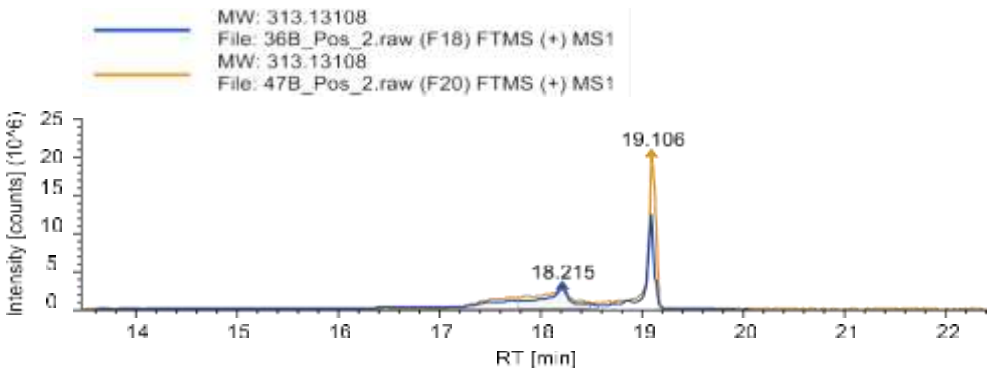


Figure S8: Retention time peak, fragmentation pattern and chemical structure of nor -3-methylfentanyl



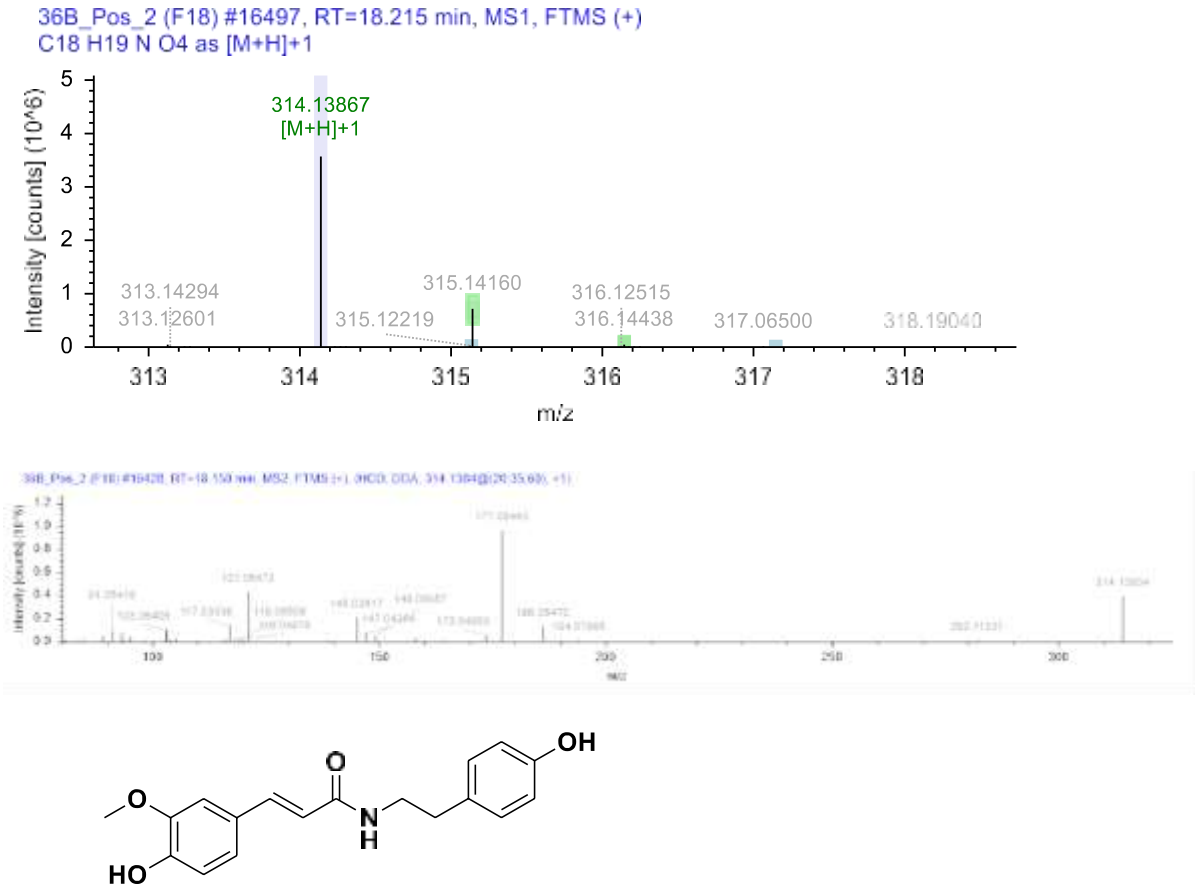
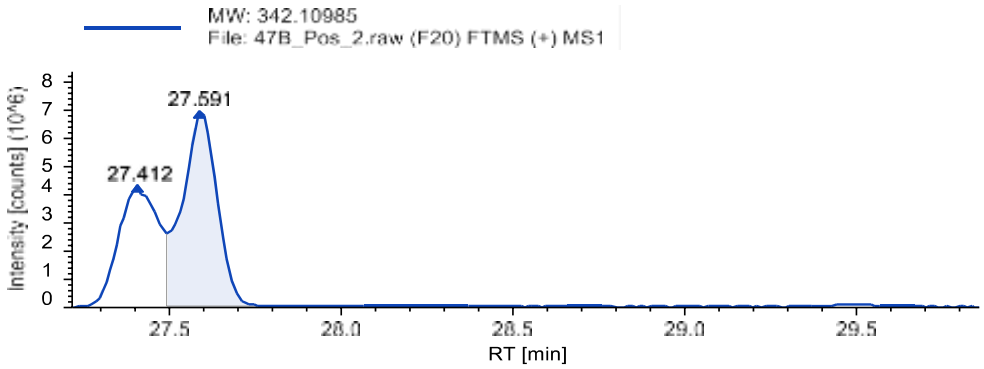


Figure S9: Retention time peak, fragmentation pattern and chemical structure of Moupinamide



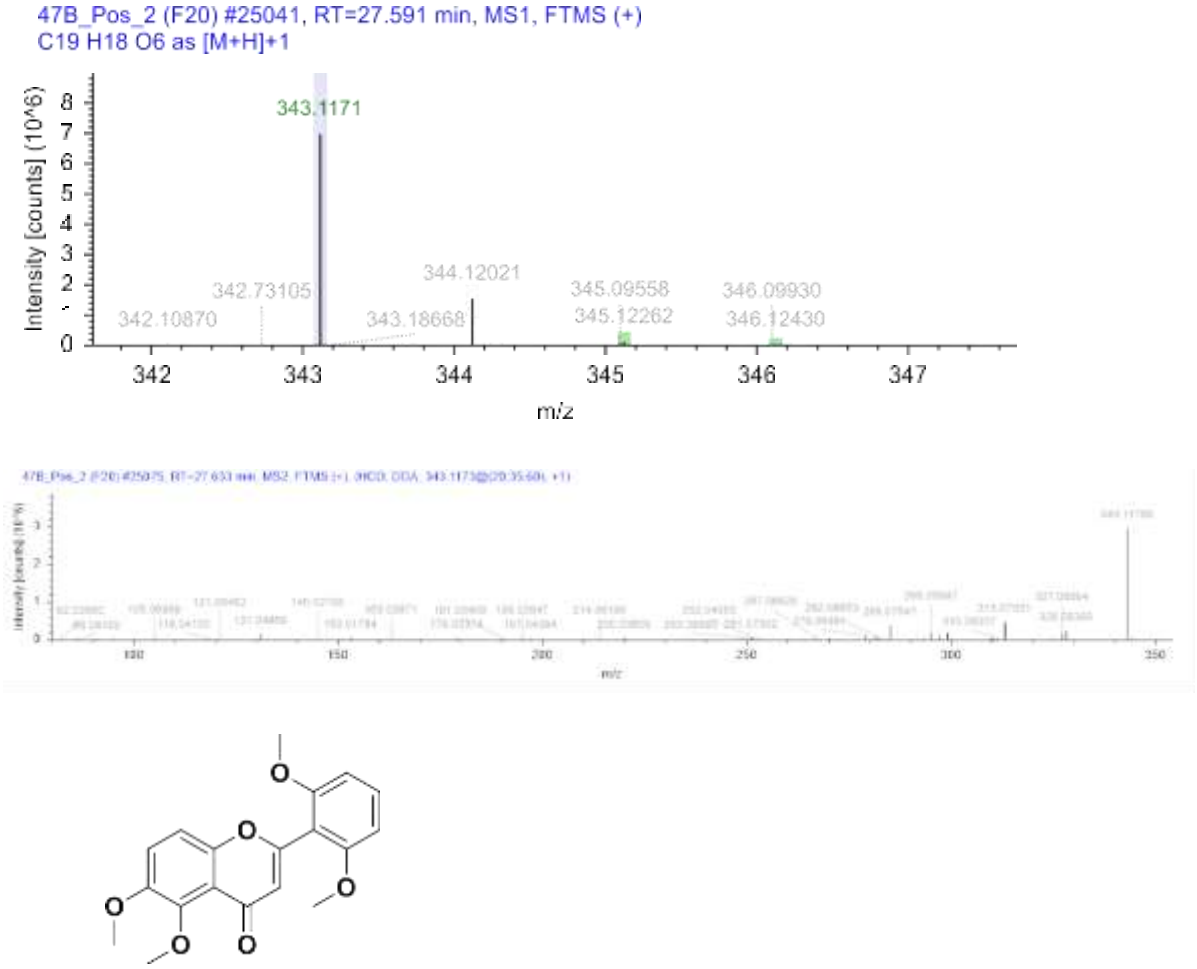
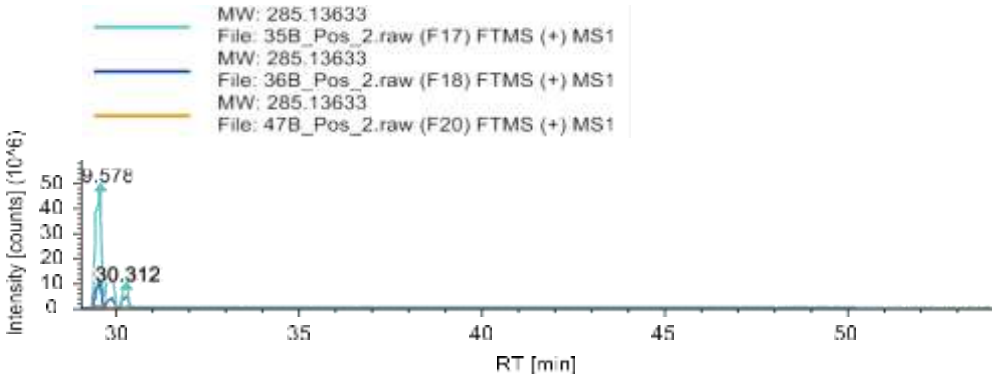


Figure S10: Retention time peak, fragmentation pattern and chemical structure of 2-(2,6-dimethoxyphenyl)-5,6-dimethoxy-4H-chromen-4-one



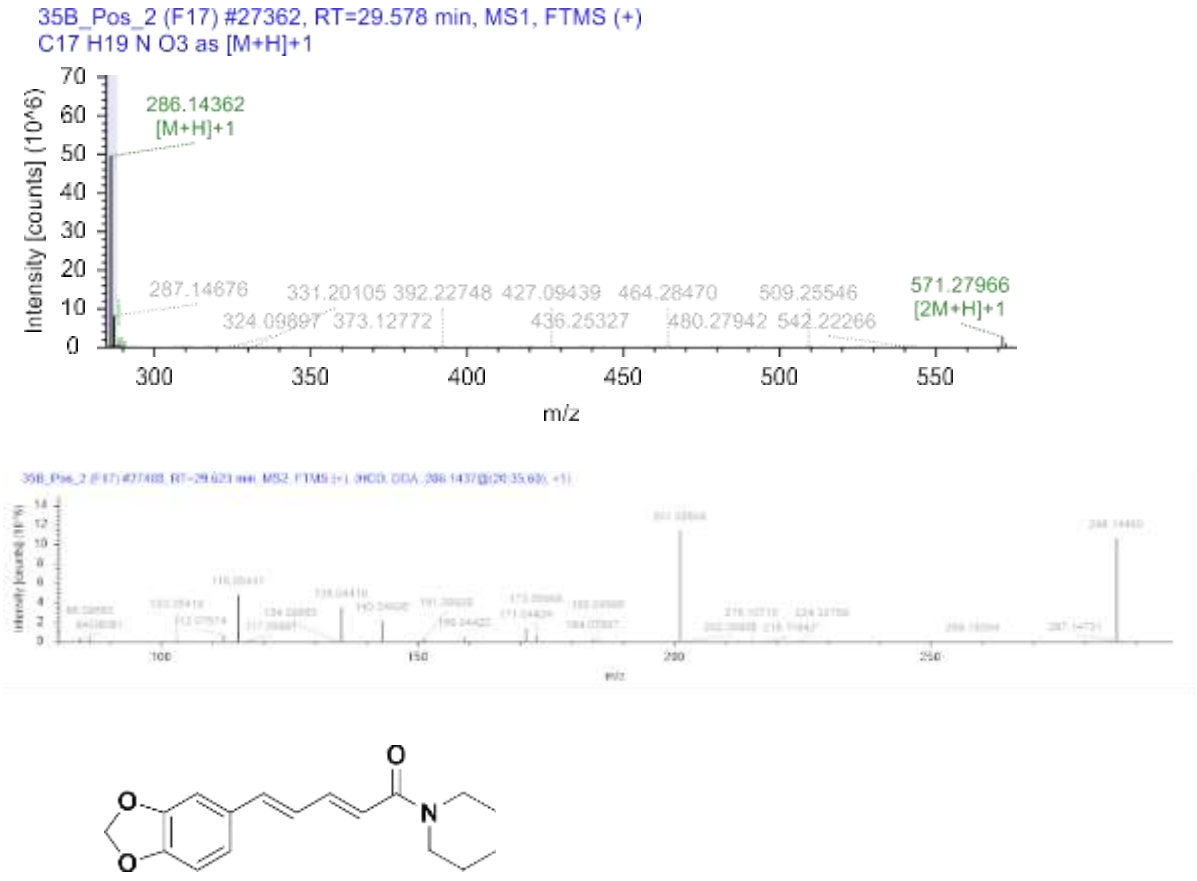
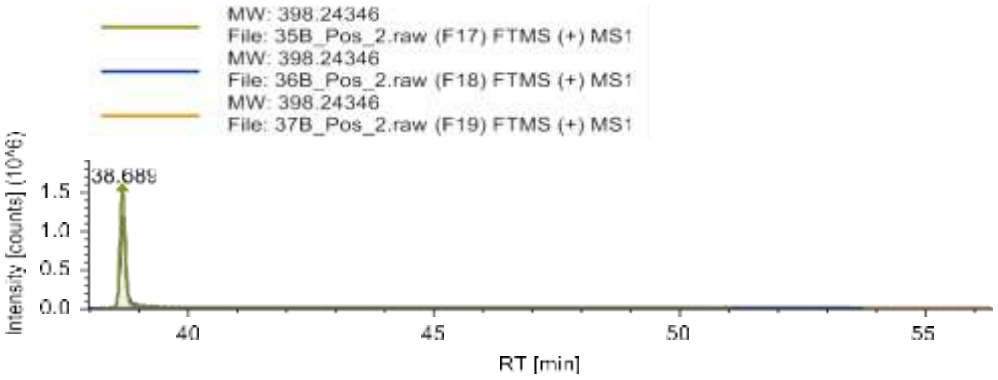


Figure S11: Retention time peak, fragmentation pattern and chemical structure of Piperine



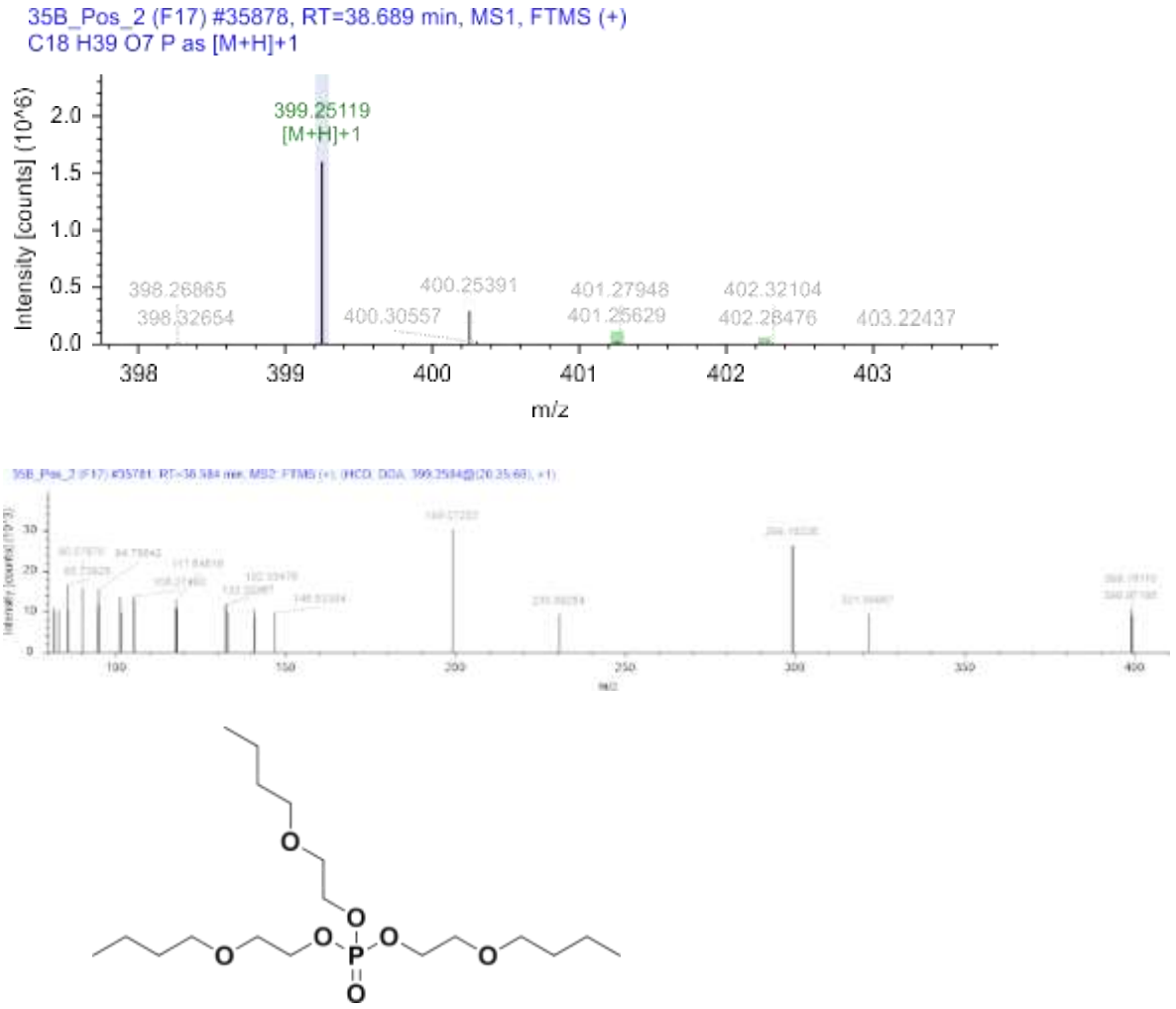
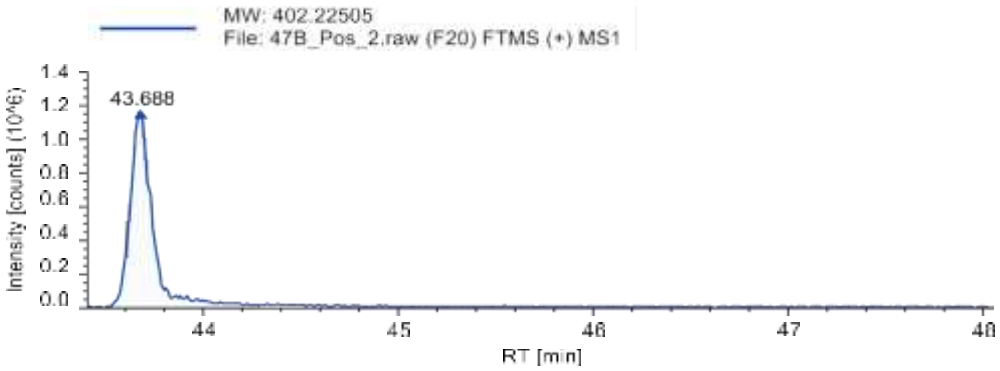


Figure S12: Retention time peak, fragmentation pattern and chemical structure of tris(2-Butoxyethyl) phosphate



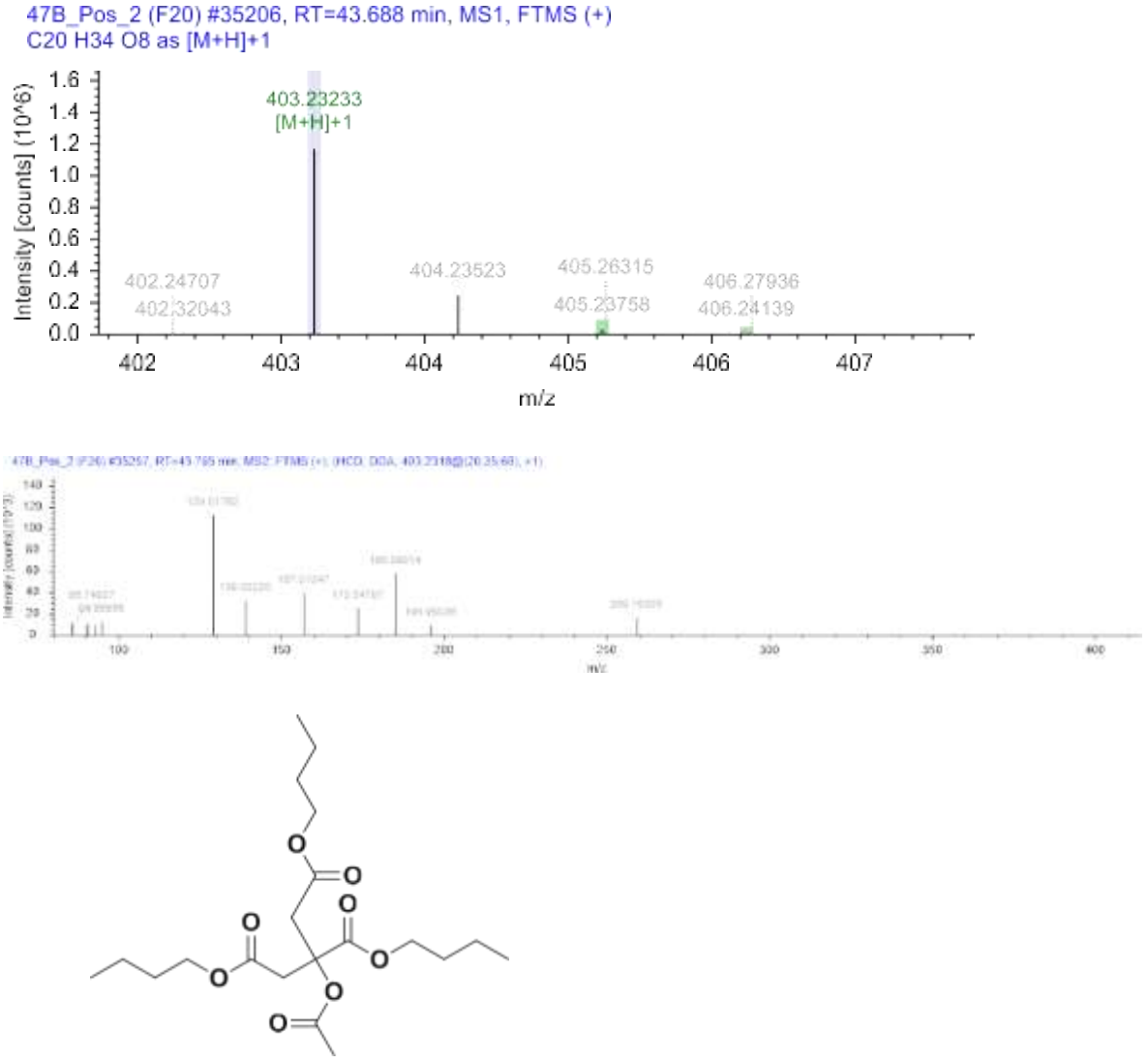
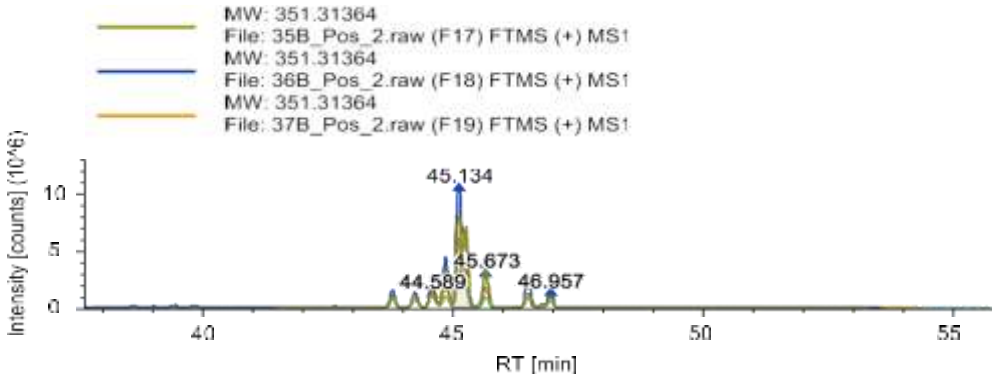


Figure S13: Retention time peak, fragmentation pattern and chemical structure of Acetyl tributyl citrate



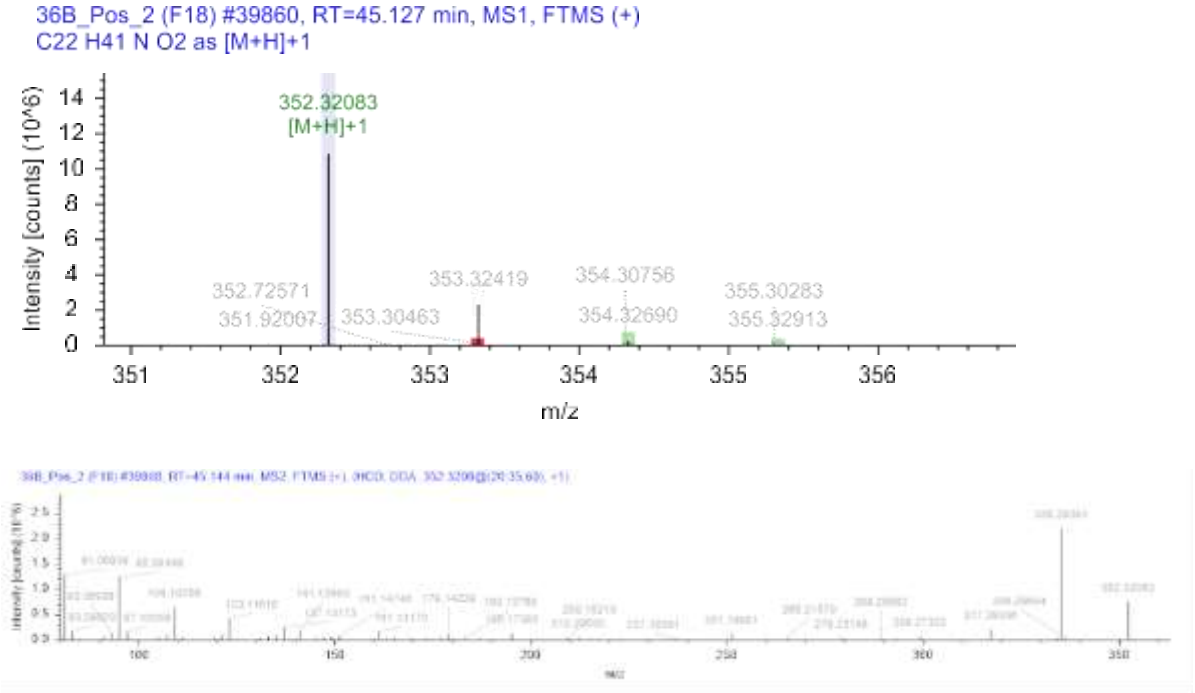
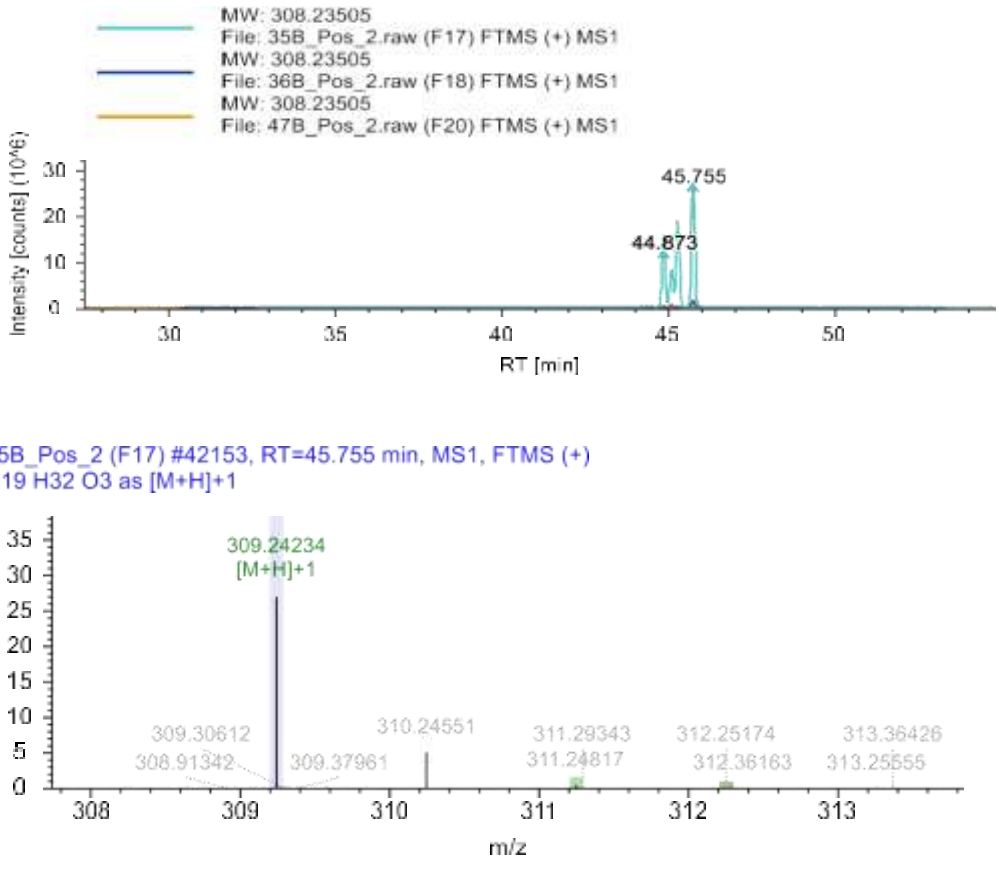


Figure S14: Retention time peak, and fragmentation pattern of Unknown compound (not identified with library)



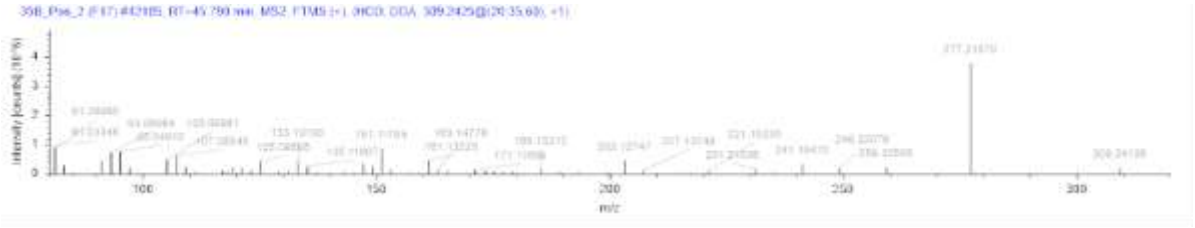


Figure S15: Retention time peak, and fragmentation pattern of Unknown compound (not identified with library)

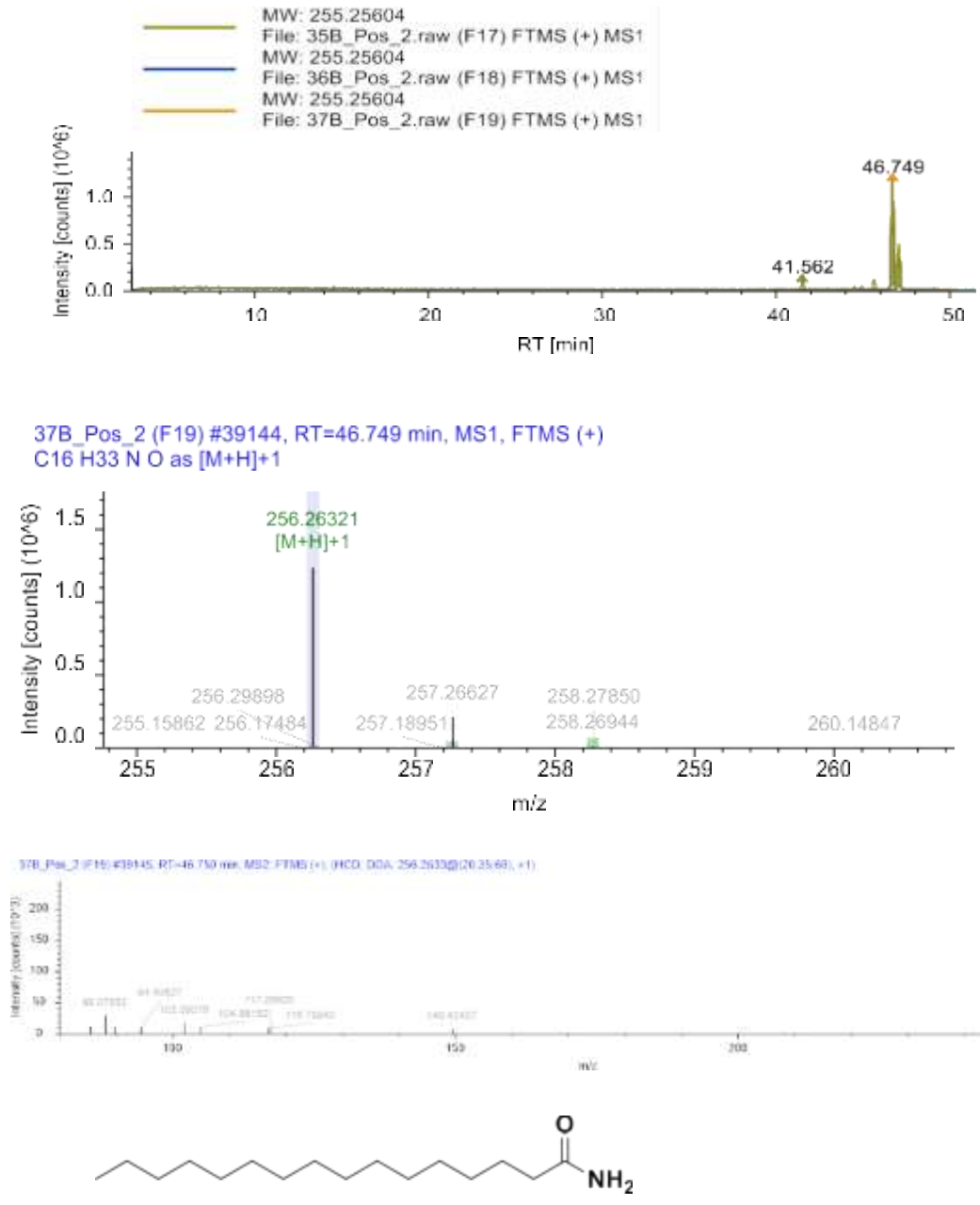


Figure S16: Retention time peak, fragmentation pattern and chemical structure of Hexadecanamide

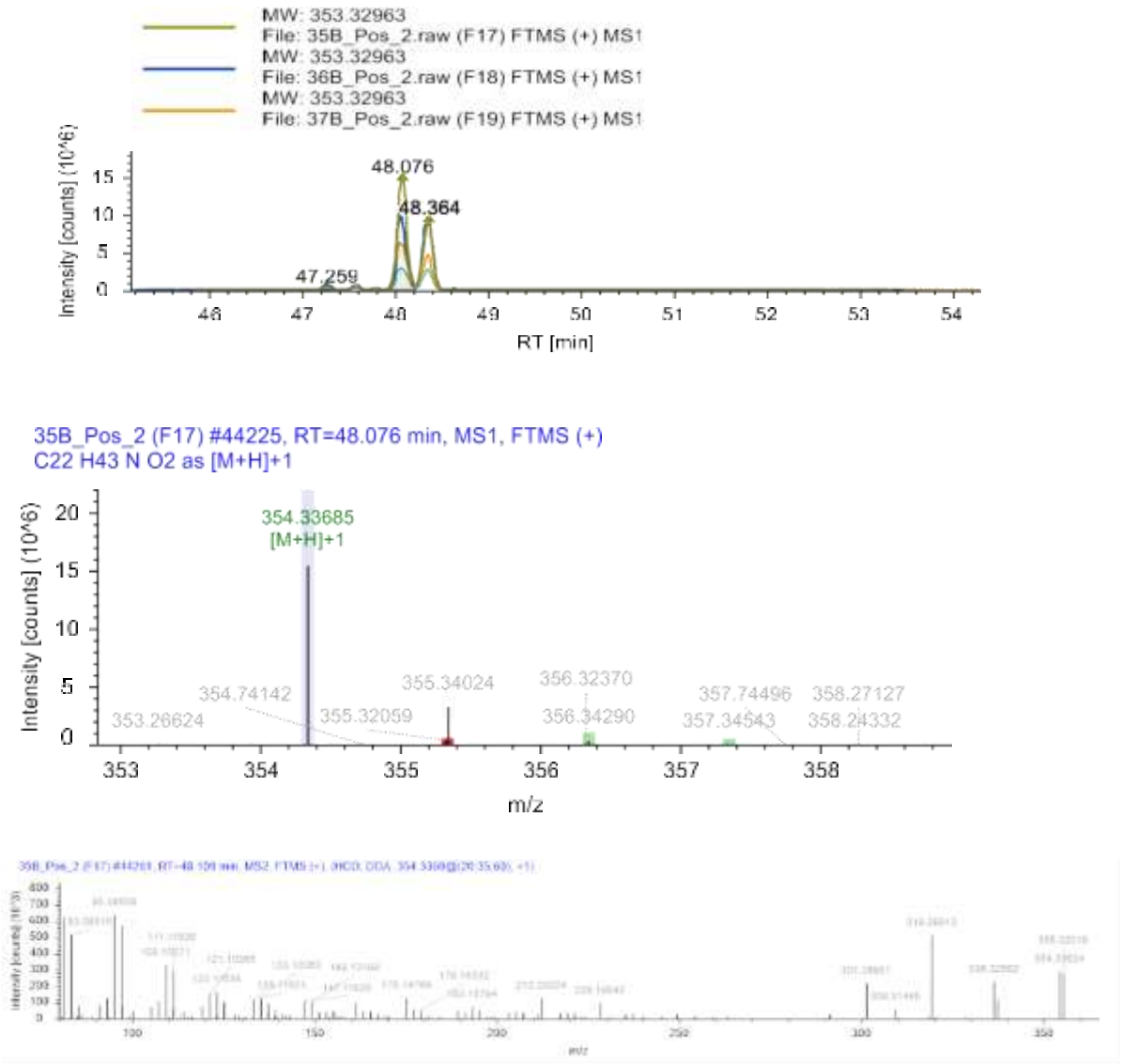
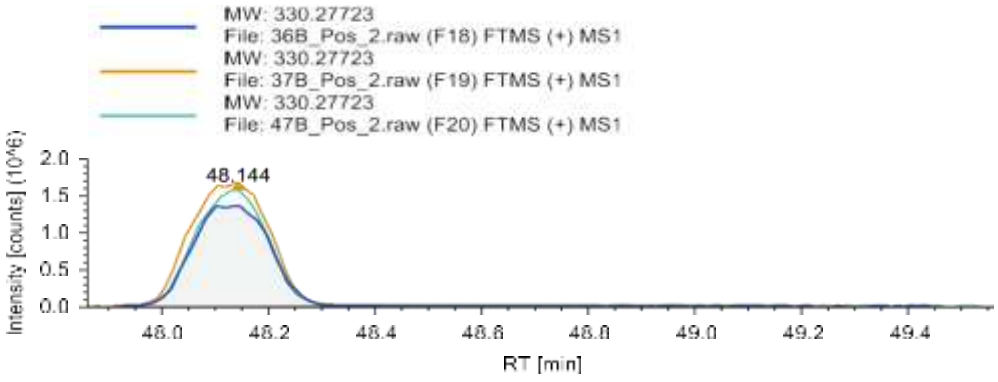


Figure S17: Retention time peak, fragmentation pattern and chemical structure of Unknown compound (not identified with library)



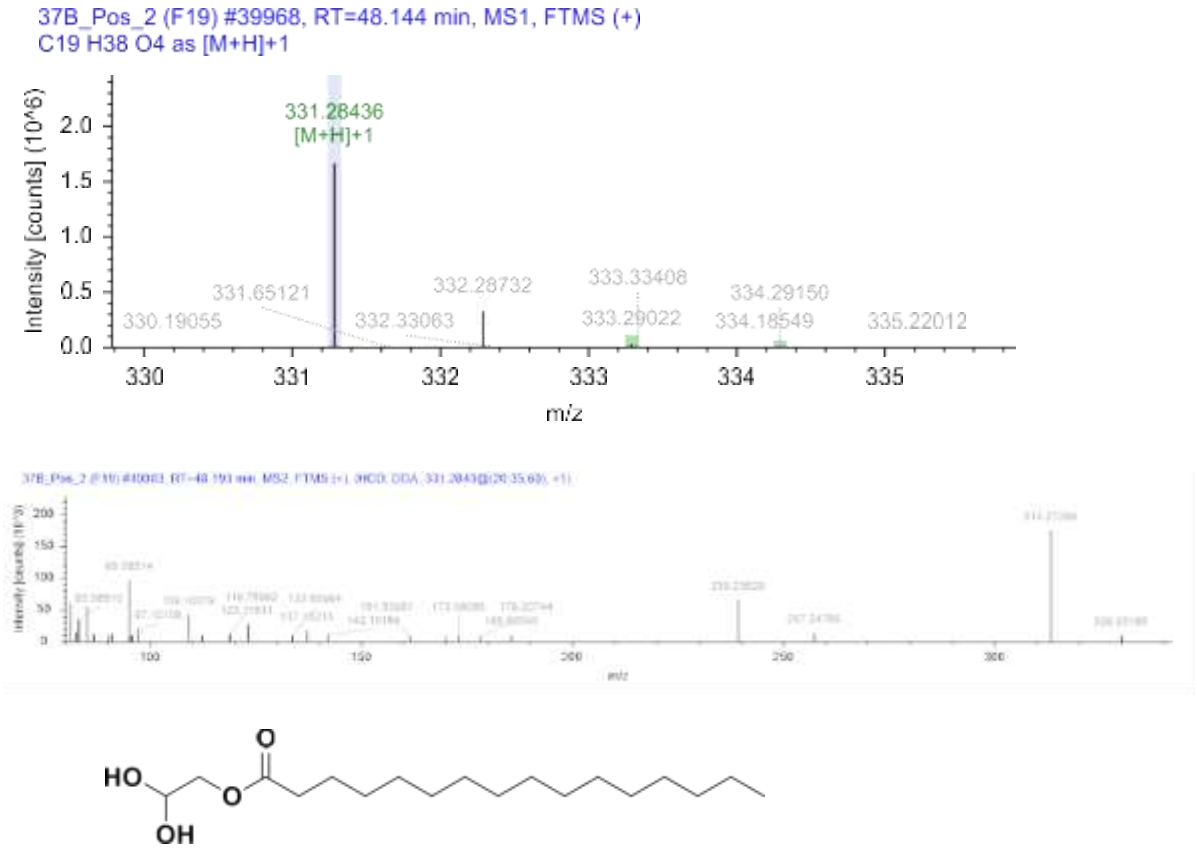
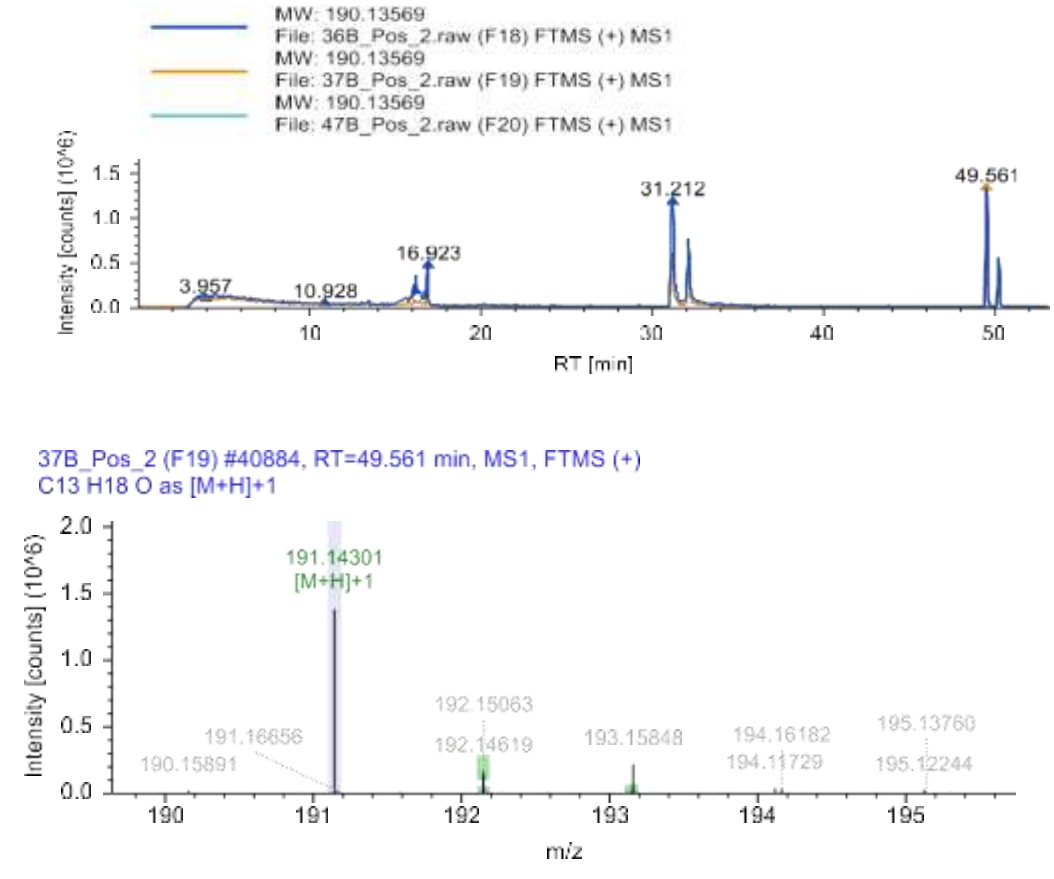
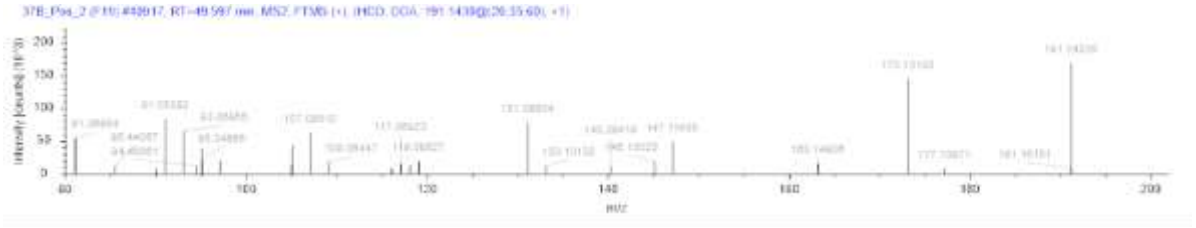


Figure S18: Retention time peak, fragmentation pattern and chemical structure of 1-Palmitoylglycerol





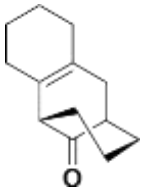
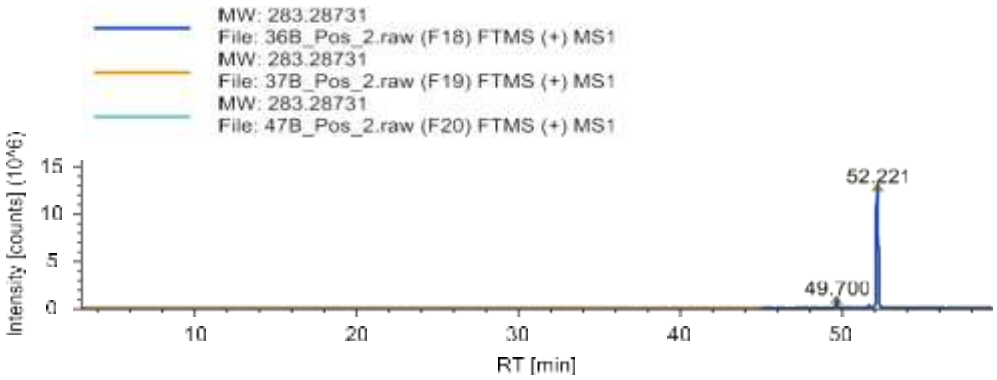
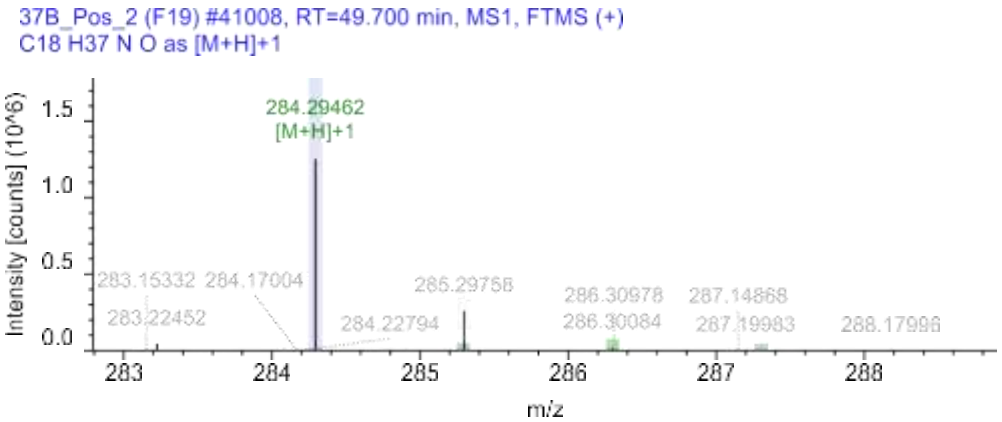
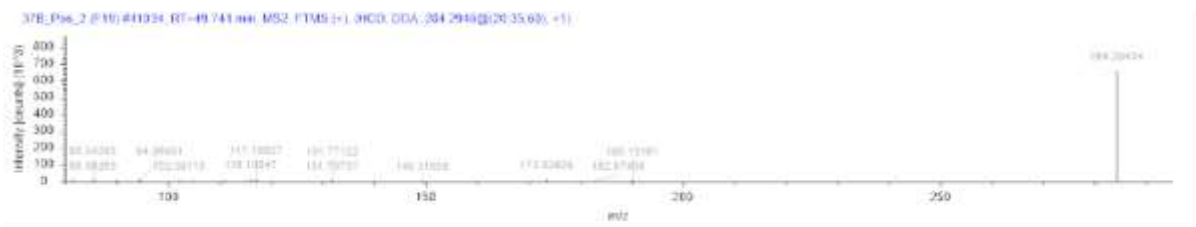


Figure S19: Retention time peak, fragmentation pattern and chemical structure of (1S)-Tricyclo[7.3.1.0~2,7~]tridec-2(7)- en-13-one







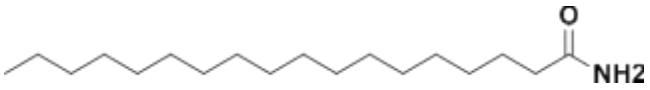
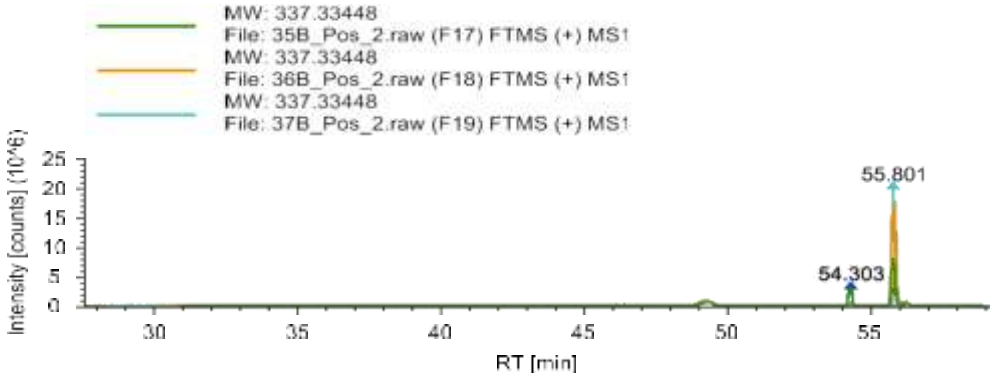
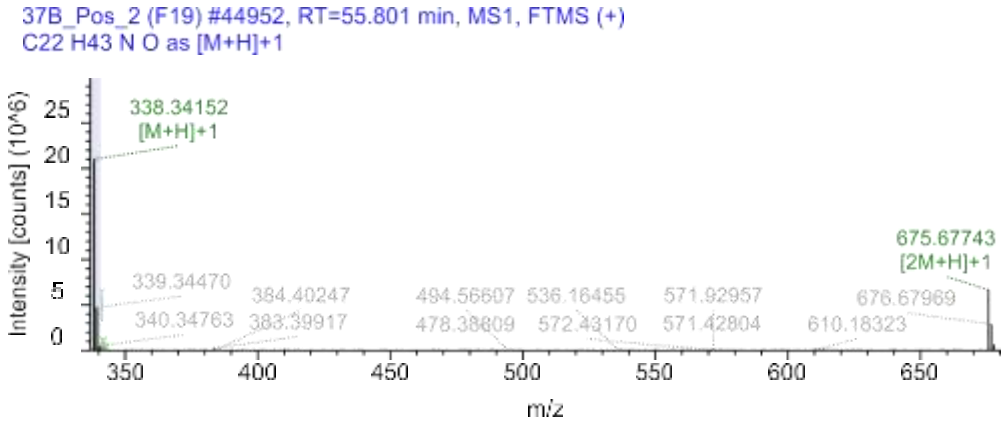


Figure S20: Retention time peak, fragmentation pattern and chemical structure of Stearamide





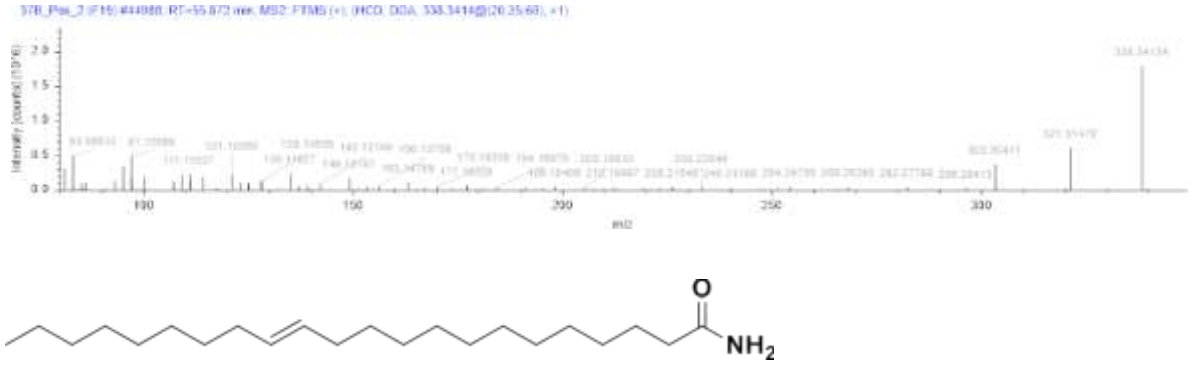


Figure S21: Retention time peak, fragmentation pattern and chemical structure of Erucamide

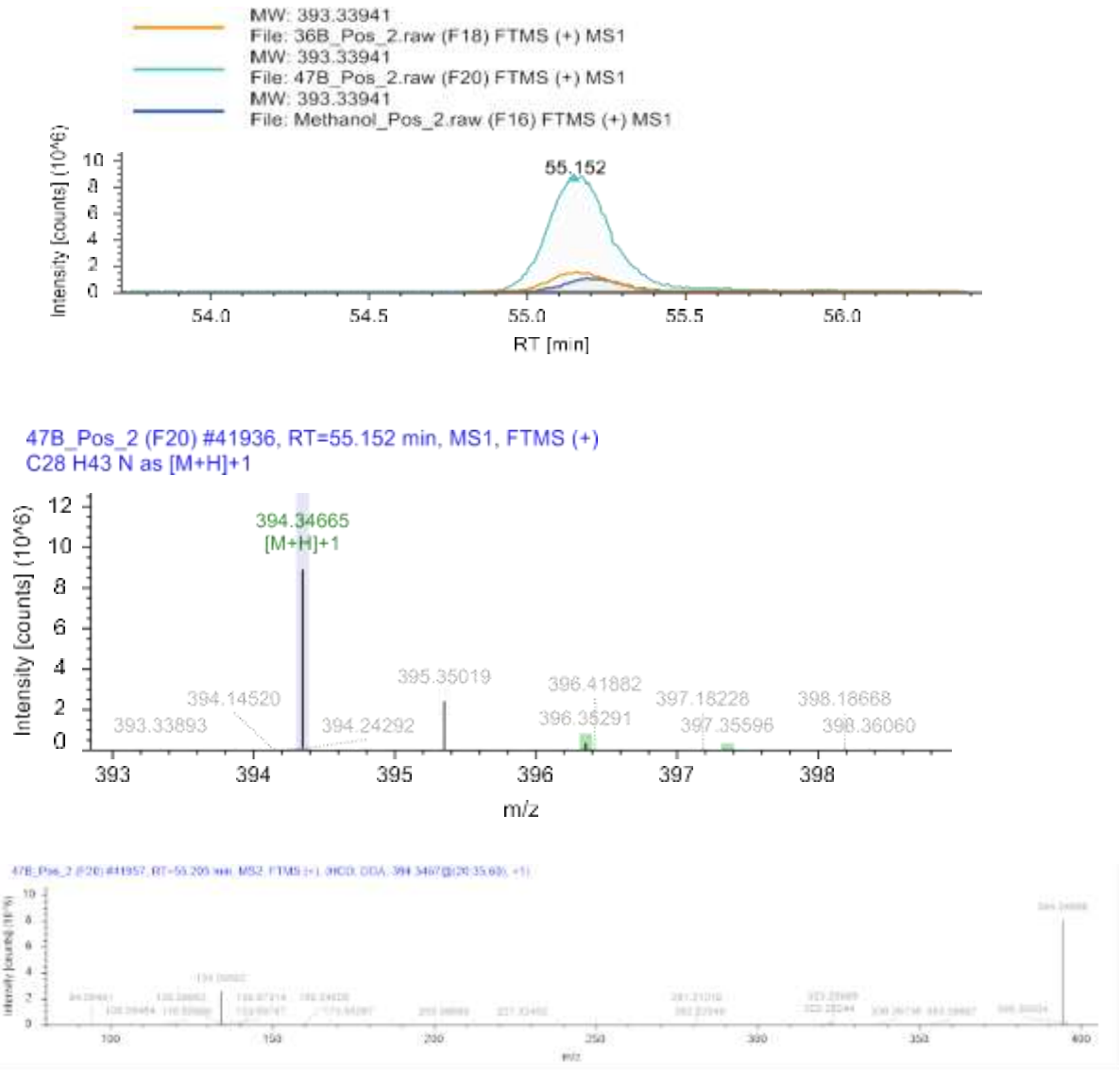
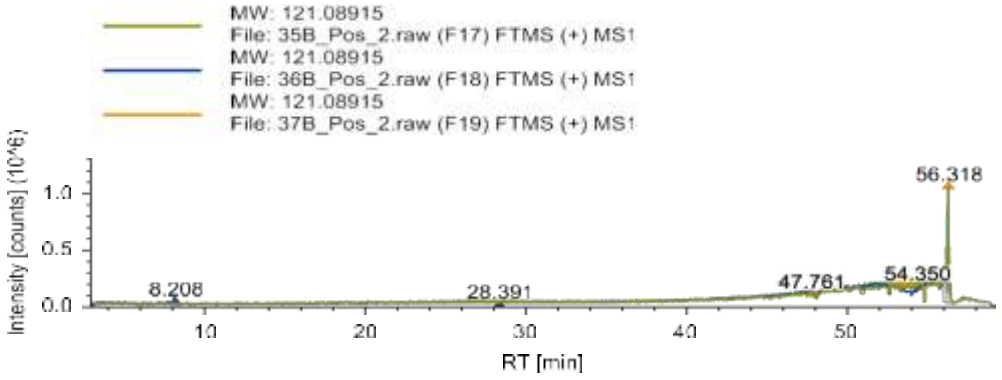


Figure S22: Retention time peak, fragmentation pattern and chemical structure of unknown compound (not identified with library)



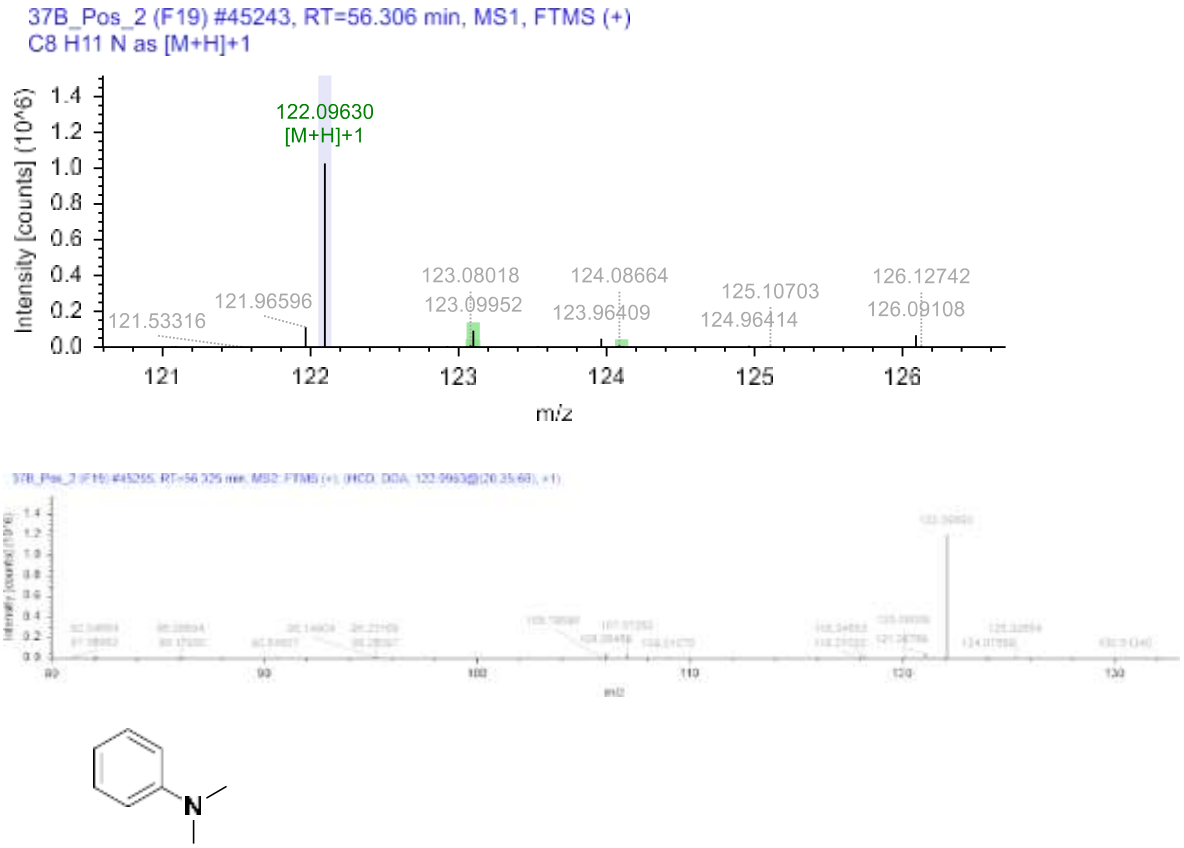


Figure S23: Retention time peak, fragmentation pattern and chemical structure of N,N-Dimethylaniline