Supplementary Table S1

Feed ratios

Raw Material	High-fat diet		Normal diet	
	Energy（gm）	calories（kcal）	Energy（gm）	calories（kcal）
Casein	200	800	200	800
L-Cystine	3	12	3	12
Corn Starch	0	0	506.2	2024.8
Maltodextrin 10	125	500	125	500
Sucrose	72.8	291.2	72.8	291.2
Cellulose, BW200	50	0	50	0
Soybean Oil	25	225	25	225
Lard	245	2205	20	180
Mineral Mix S10026B	50	0	50	0
Vitamin Mix V10001C	1	4	1	4
Choline Bitartrate	2	0	2	0
FD&C Red Dye #40	0	0	0	0
FD&C Yellow Dye #5	0	0	0.04	0
FD&C Blue Dye #1	0.05	0	0.01	0
Total	773.85	4037.2	1055.05	4037

Supplementary Table S2

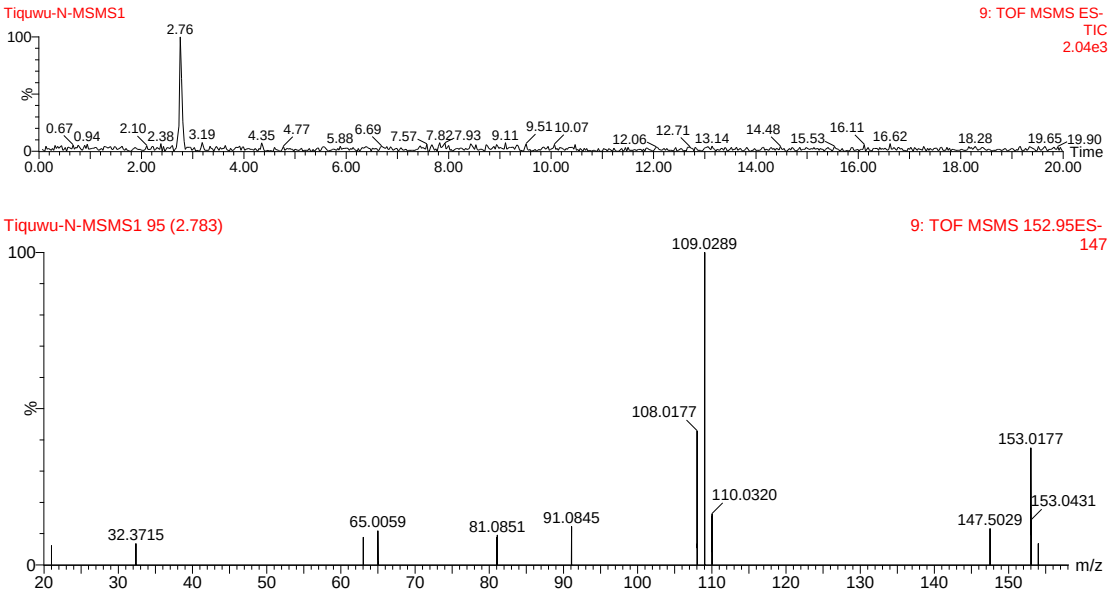
Primer sequences used for real-time PCR analysis.

Name	Forward primer (5′–3′)	Reverse primer (3′–5′)
CD68	GGGCTCTTGGGAACTAC	ATGAGCCCGAGACTACA
C1qb	CTATGAGCCACGCAACG	GTCTTTCGGTCACTTCTAC
C1qa	TGTGCTGACCATGACCCTA	AACGGACCTAACGGAAA
Cyp2a5	CAAAGACTTCAACCCAA	AAGAGGCTTTGTTATGG
Cyba	GCCATGTGGGCCAACGA	CCTATGAGGTCGTCTGTCT
Cdkn1a	CCGAGAACGGTGGAACT	GTCGTCCCGTCTCCTTC

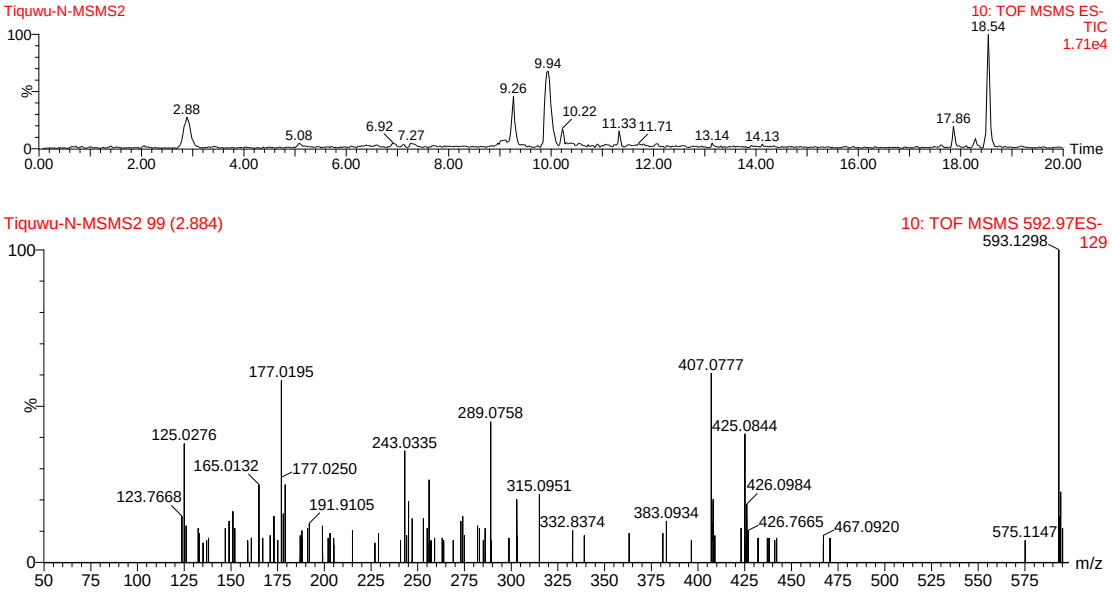
Supplementary Figure S1

MS spectra of the identified compounds in HBP

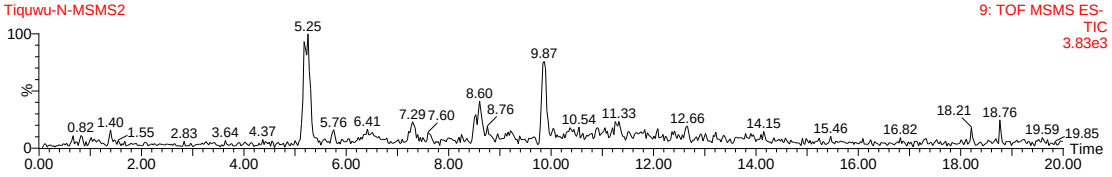
$[M-H]^-$ (m/z)

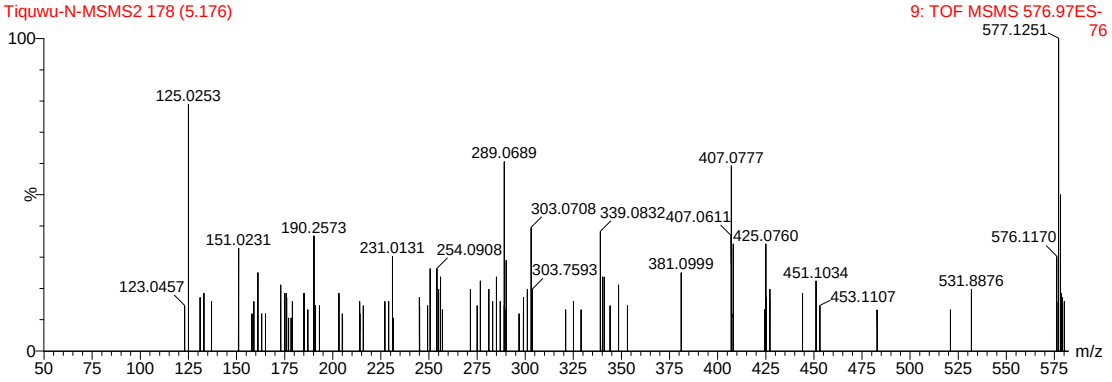


1 Protocatechuic acid

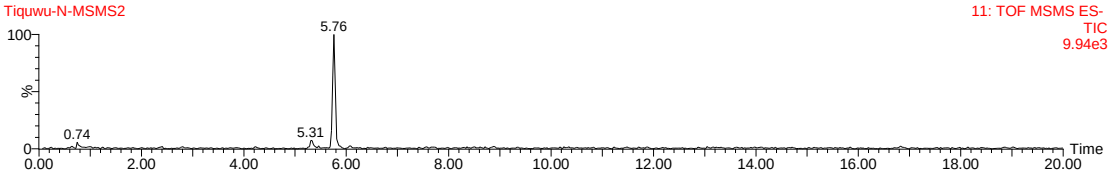


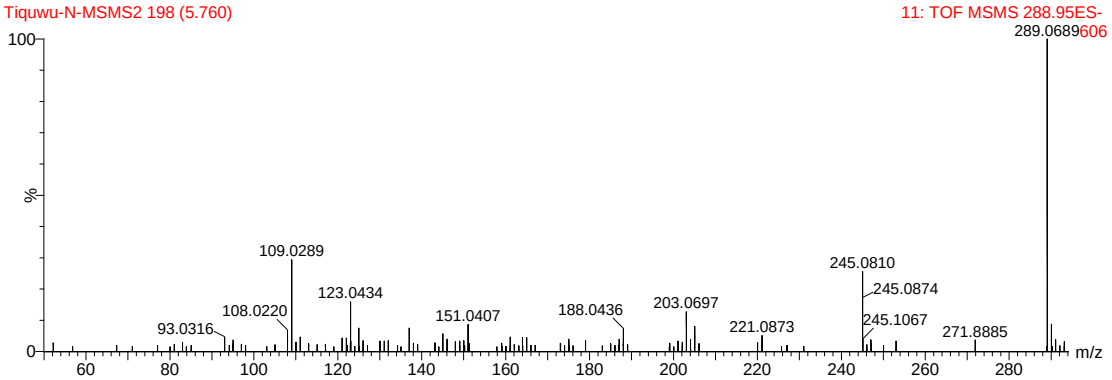
2 (Epi)gallocatechin-(epi)catechin



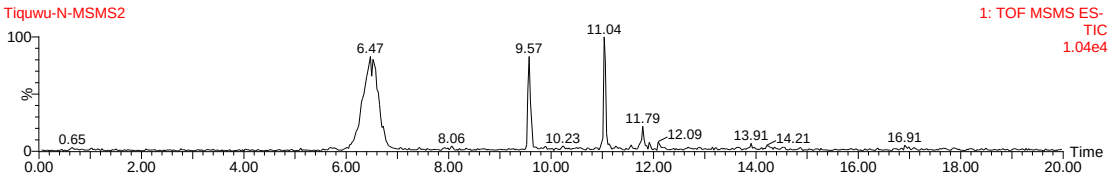


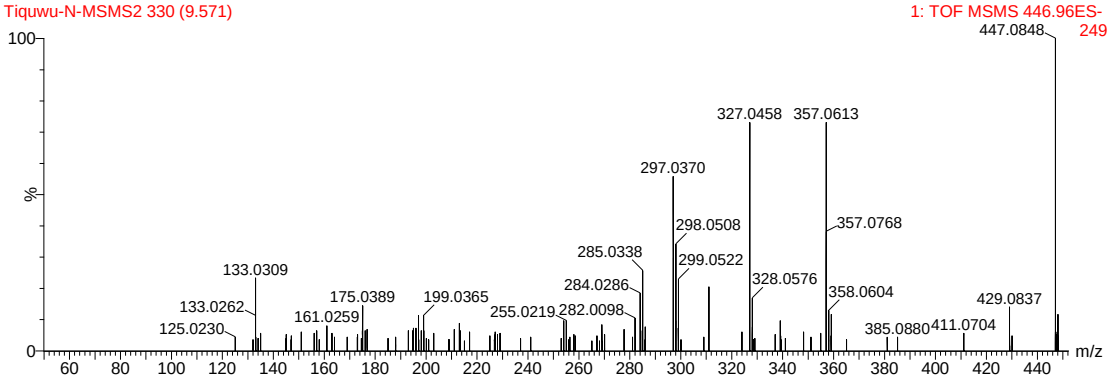
3 (Epi)catechin-(epi)catechin



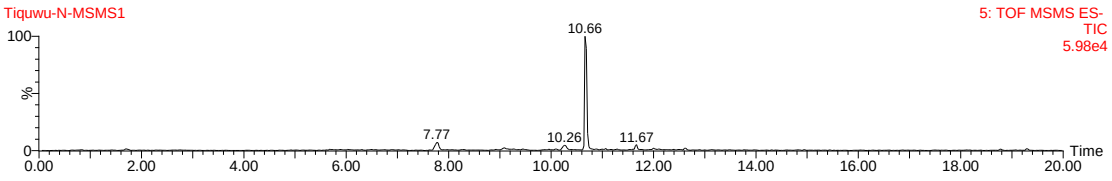


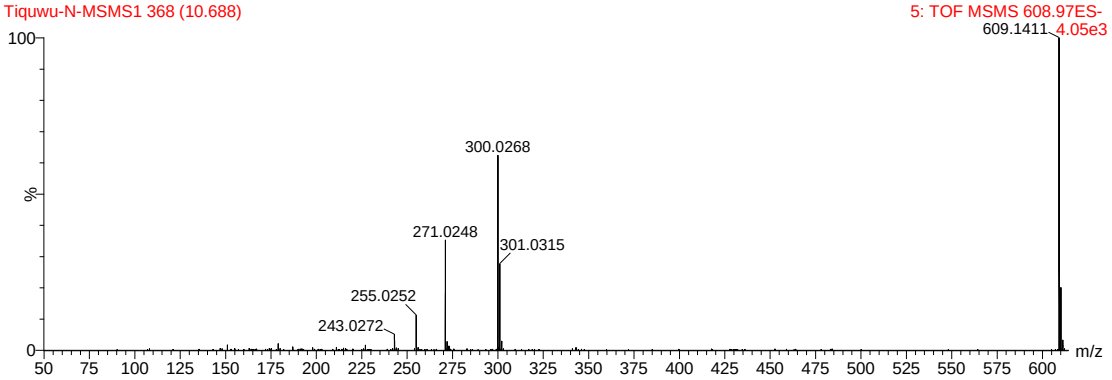
4 Catechin



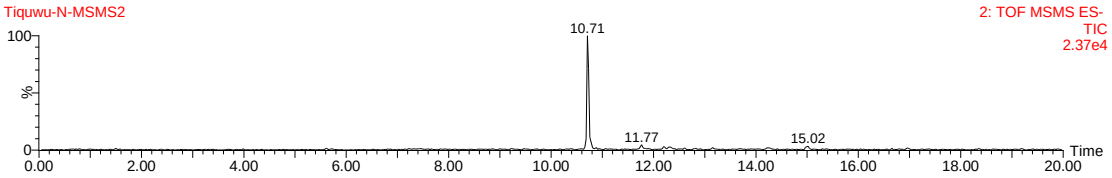


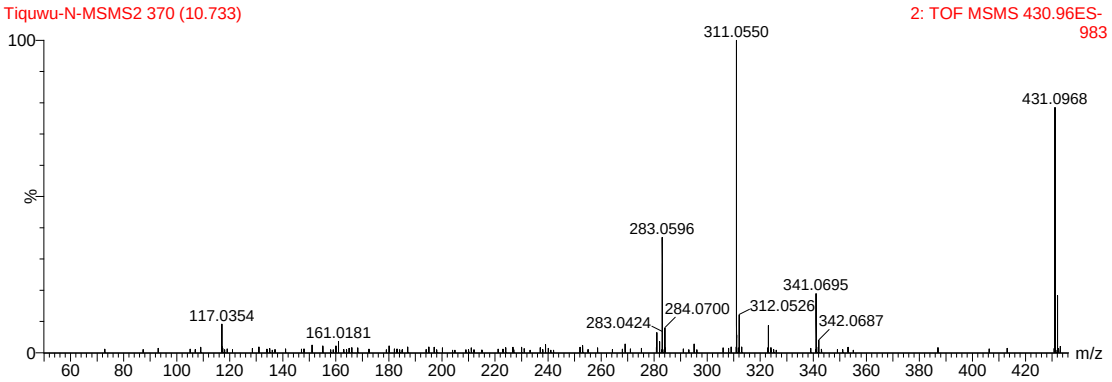
5 Orientin or Isoorientin



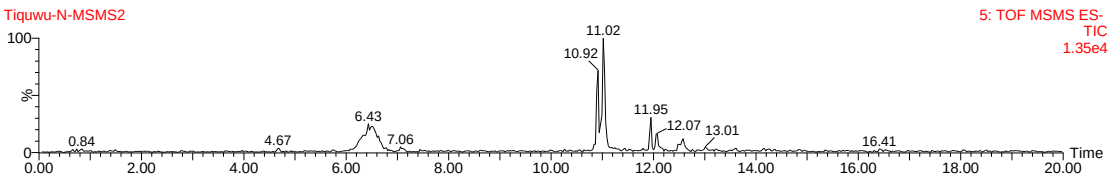


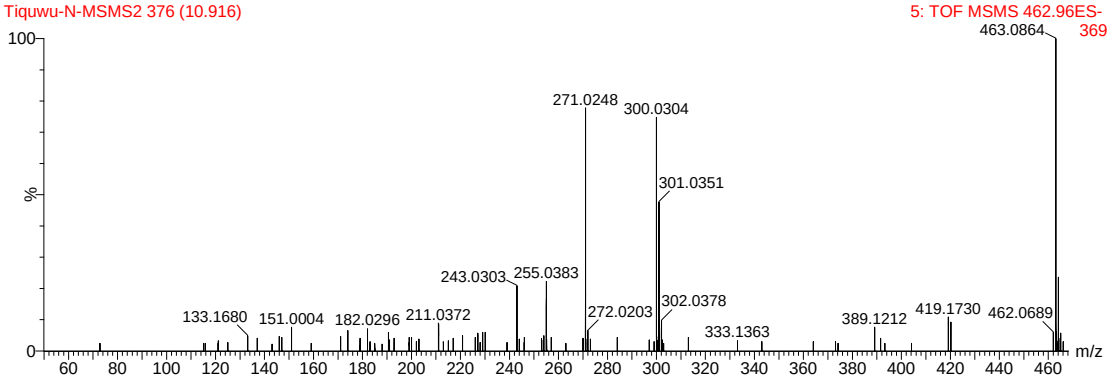
6 Quercetin 3-O-rutinoside



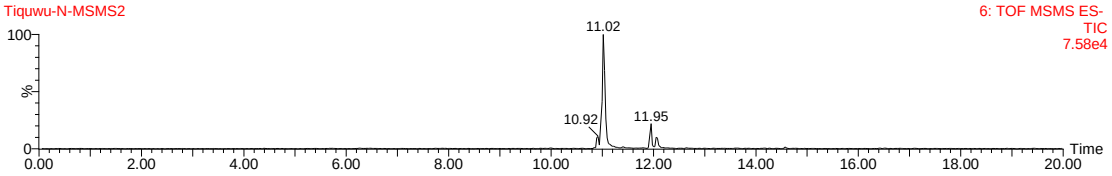


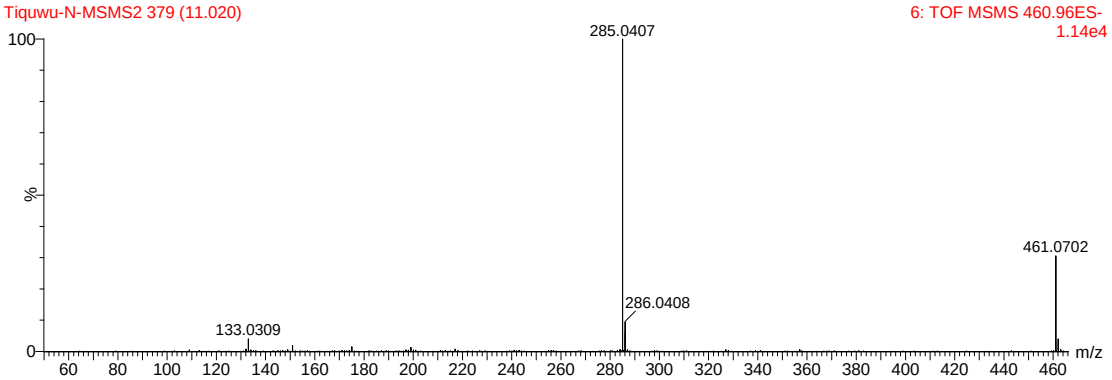
7 Isovitexin or vitexin



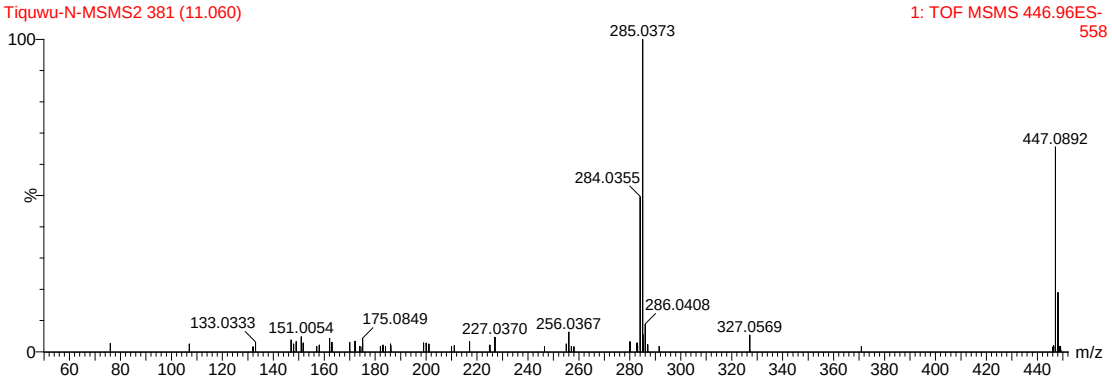


8 Quercetin-3-O-glucoside

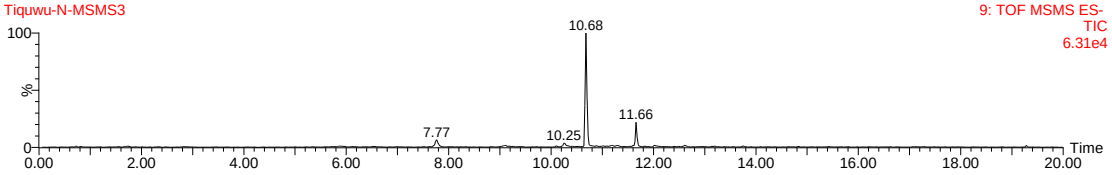


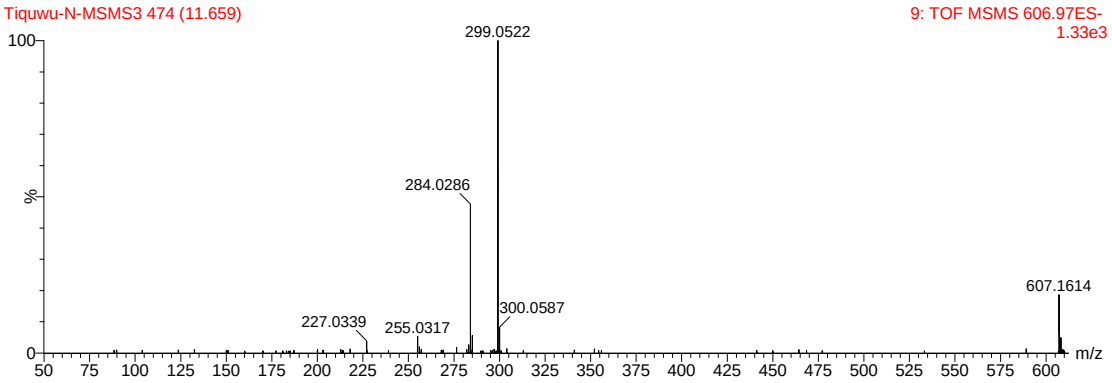


9 Luteolin 7-O-glucuronide

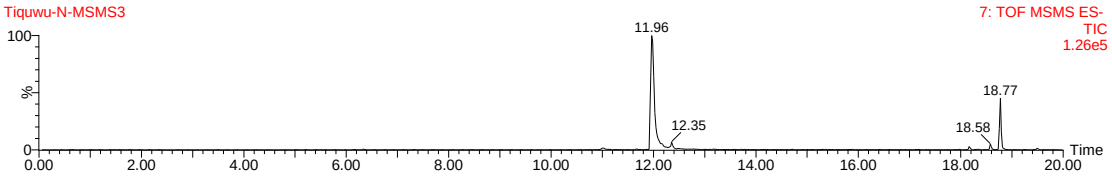


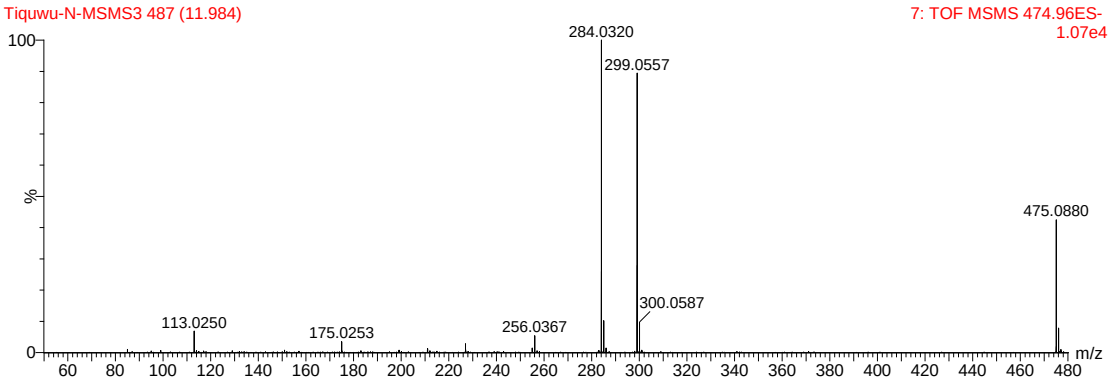
10 Luteolin-7-O-glucoside



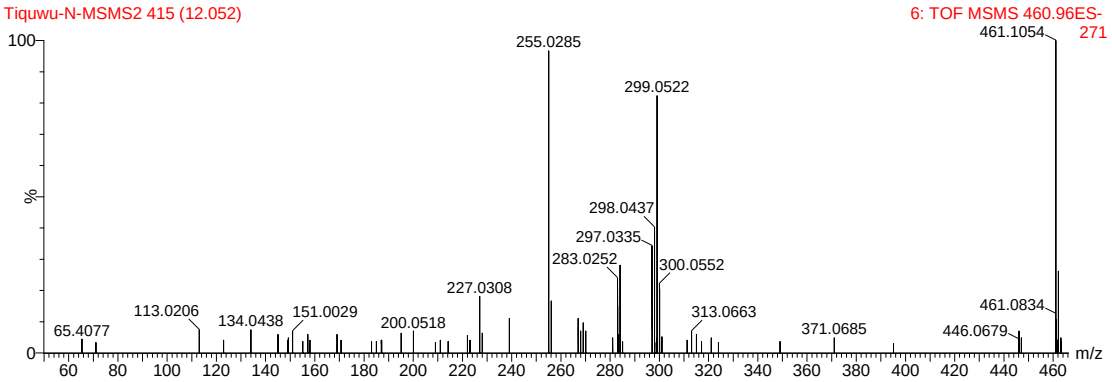


11 Chrysoeriol 7-O-rutinoside

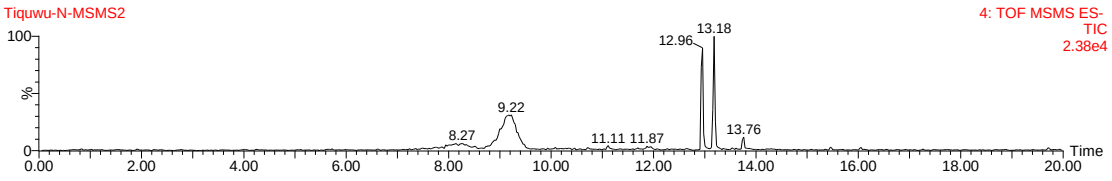


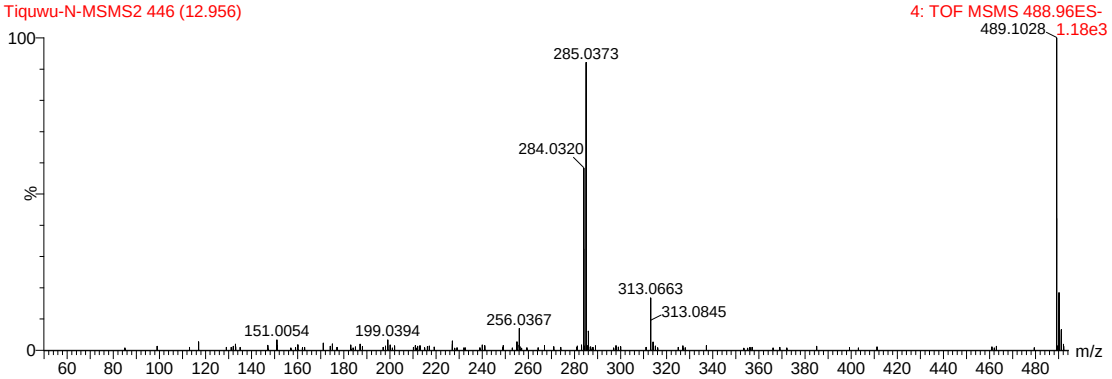


12 Chrysoeriol 7-O-glucuronide

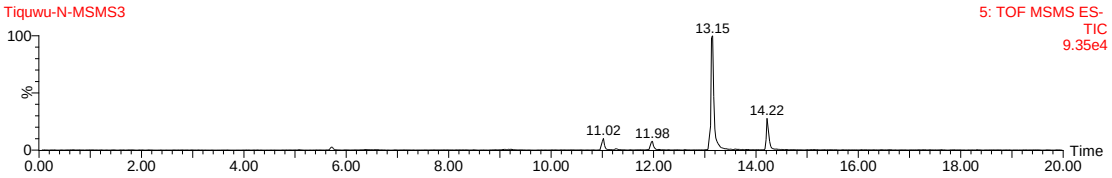


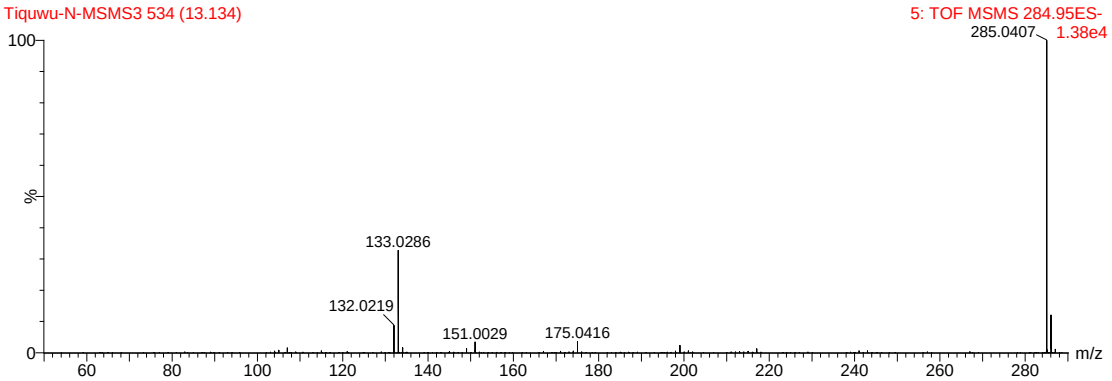
13 Chrysoeriol 7-O-glucoside



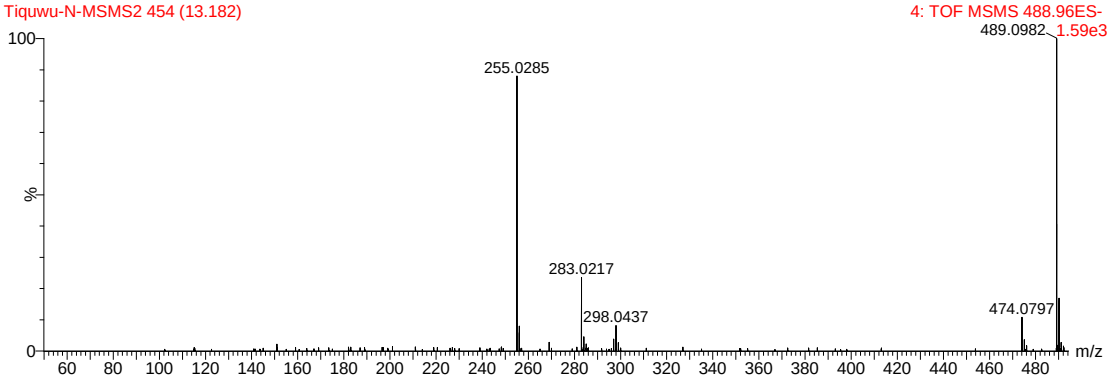


14 Luteolin 7-O-(6″-O-acetyl)-glucoside

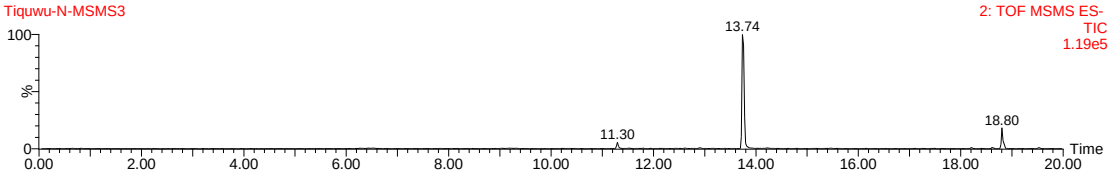


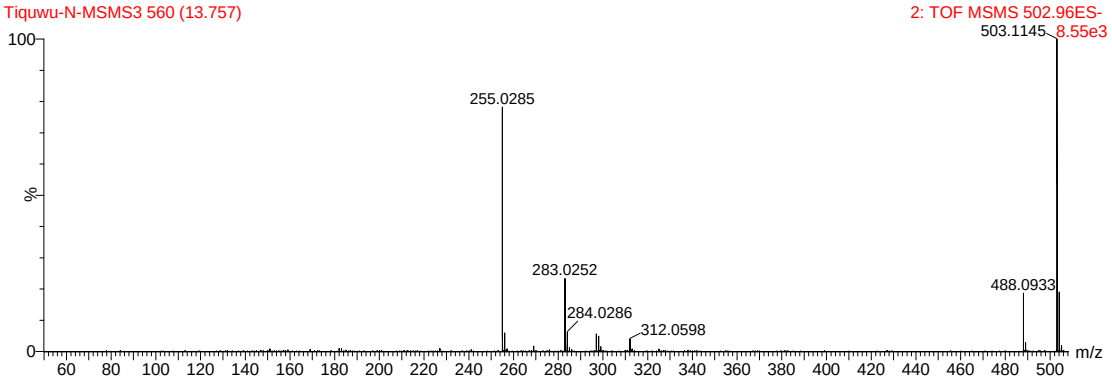


15 Luteolin

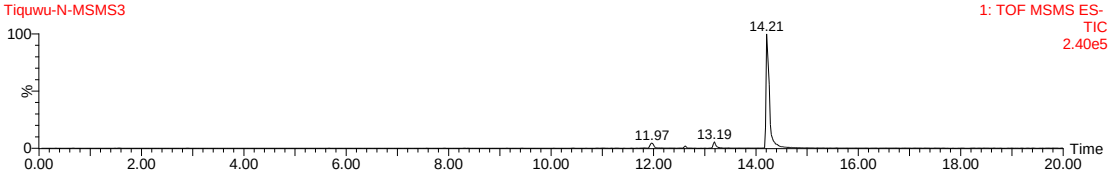


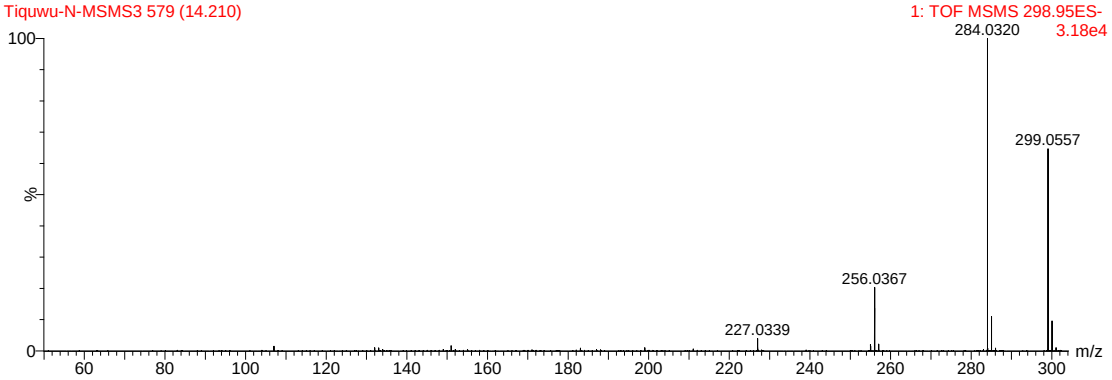
16 Chrysoeriol 7-O-methylglucuronide





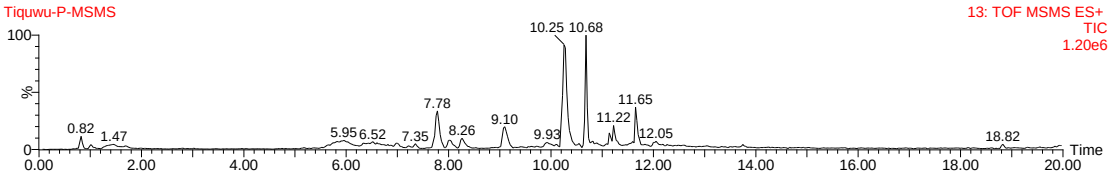
17 Chrysoeriol 7-O-(6″-O-acetyl)-glucoside

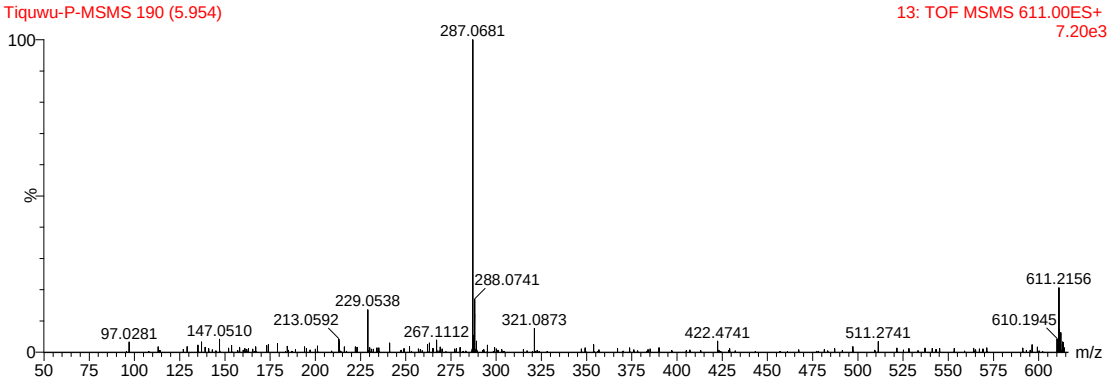




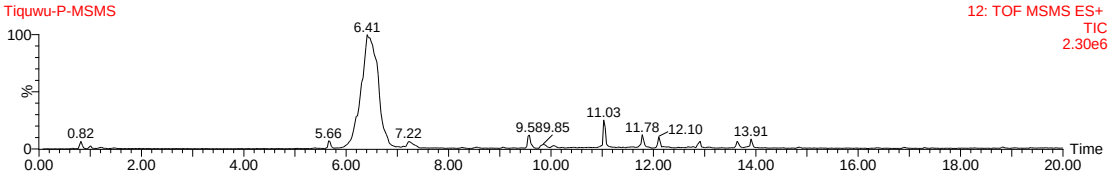
18 Chrysoeriol

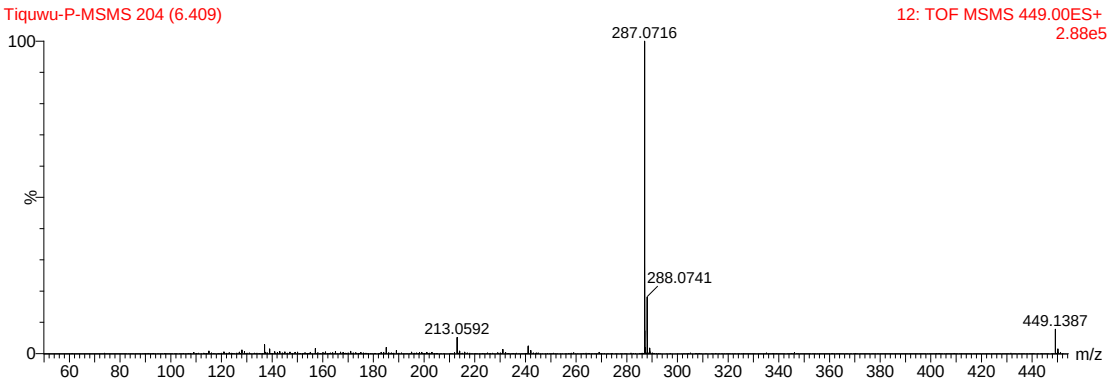
$[M+H]^+$ (m/z)



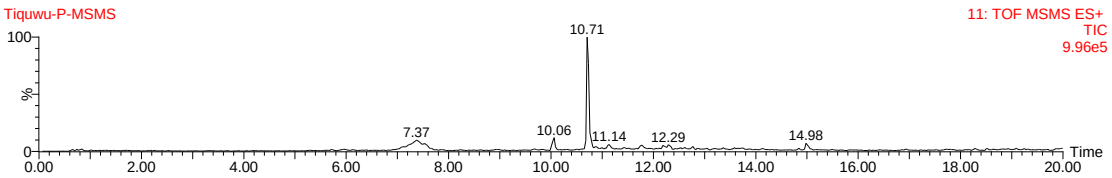


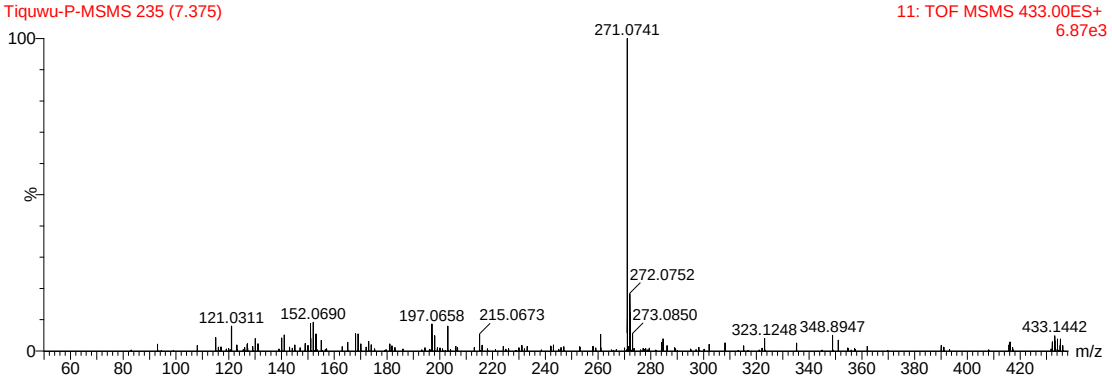
19 Cyanidin 3-O-diglucoside



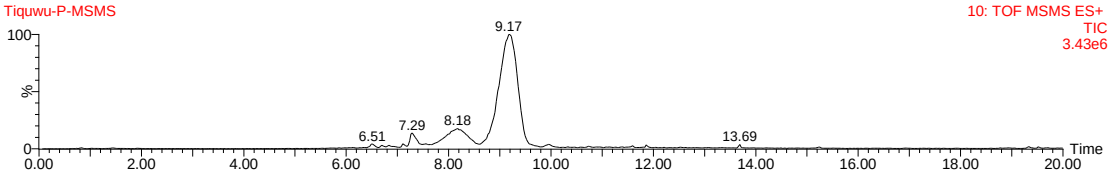


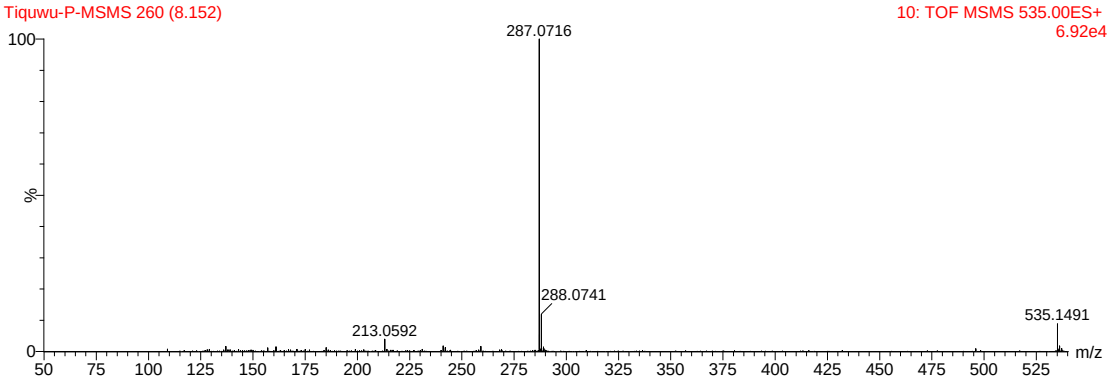
20 Cyanidin 3-O-glucoside



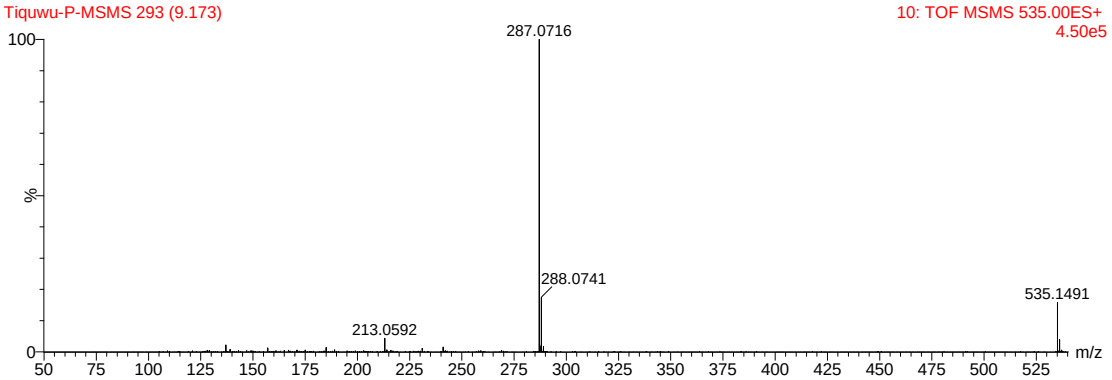


21 Pelargonidin 3-O-glucoside

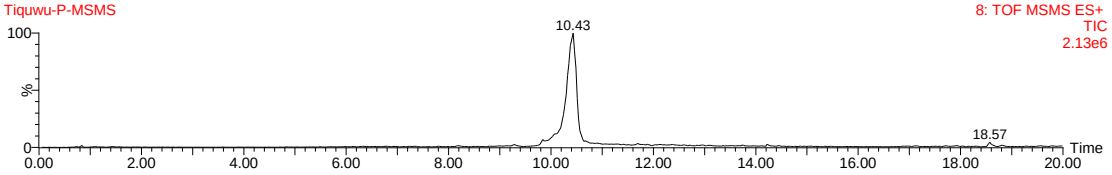


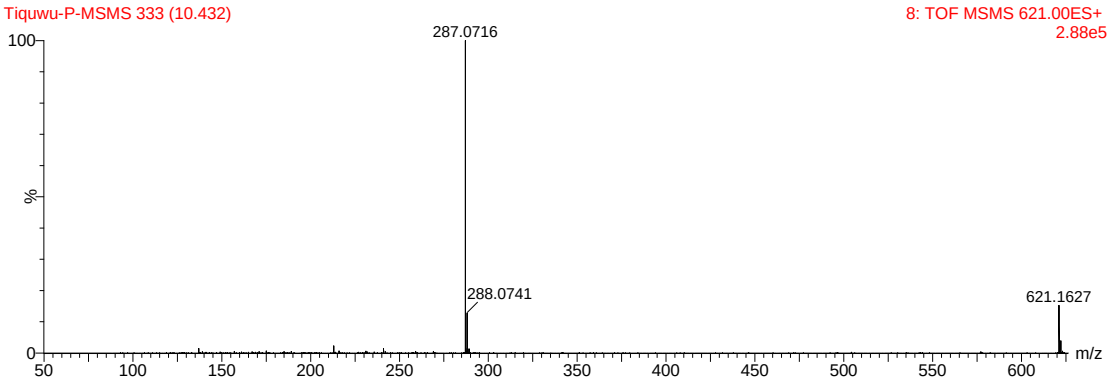


22 Cyanidin 3-O-(6″-O-malonyl)-galactoside

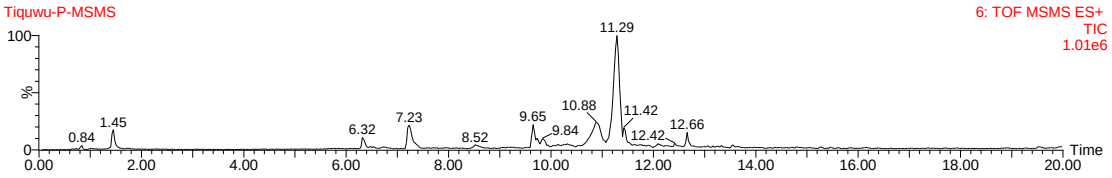


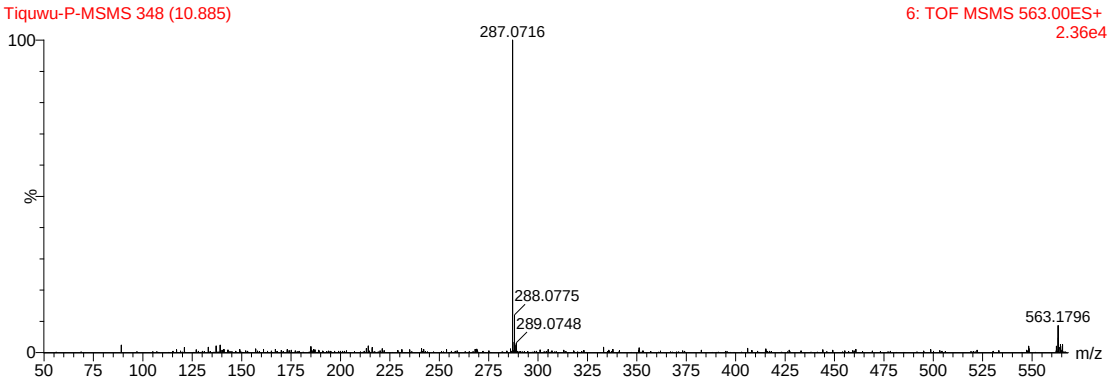
23 Cyanidin 3-O-(6″-O-malonyl)-glucoside



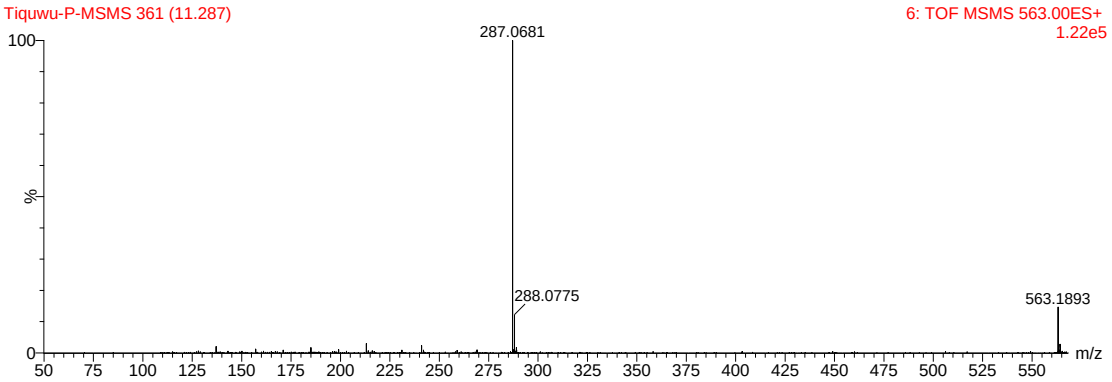


24 Cyanidin 3-O-(3″,6″-O-dimalonyl)-glucoside

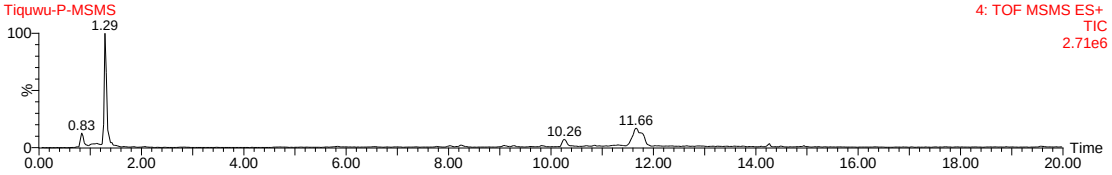


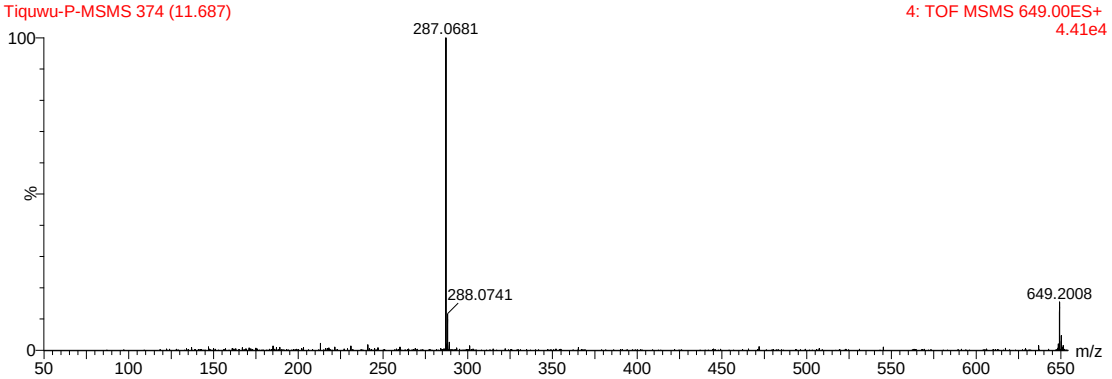


25 Cyanidin 3-O-(6″-O-succinyl)-glucuronide



26 Cyanidin 3-O-(3″-O-succinyl)-glucuronide

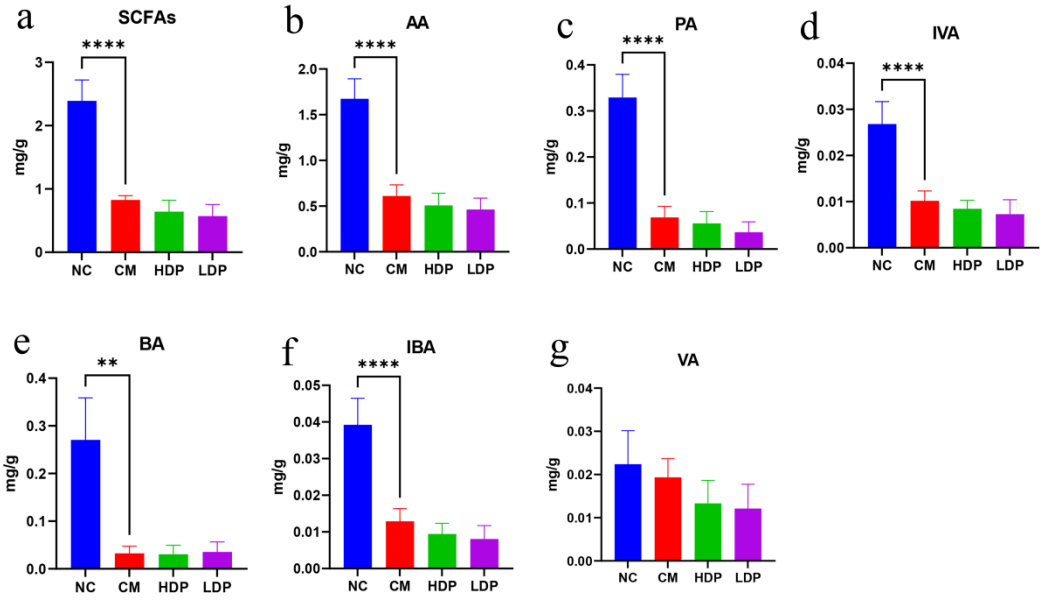




27 Cyanidin 3-O-(3″,6″-O-disuccinyl)-glucoside

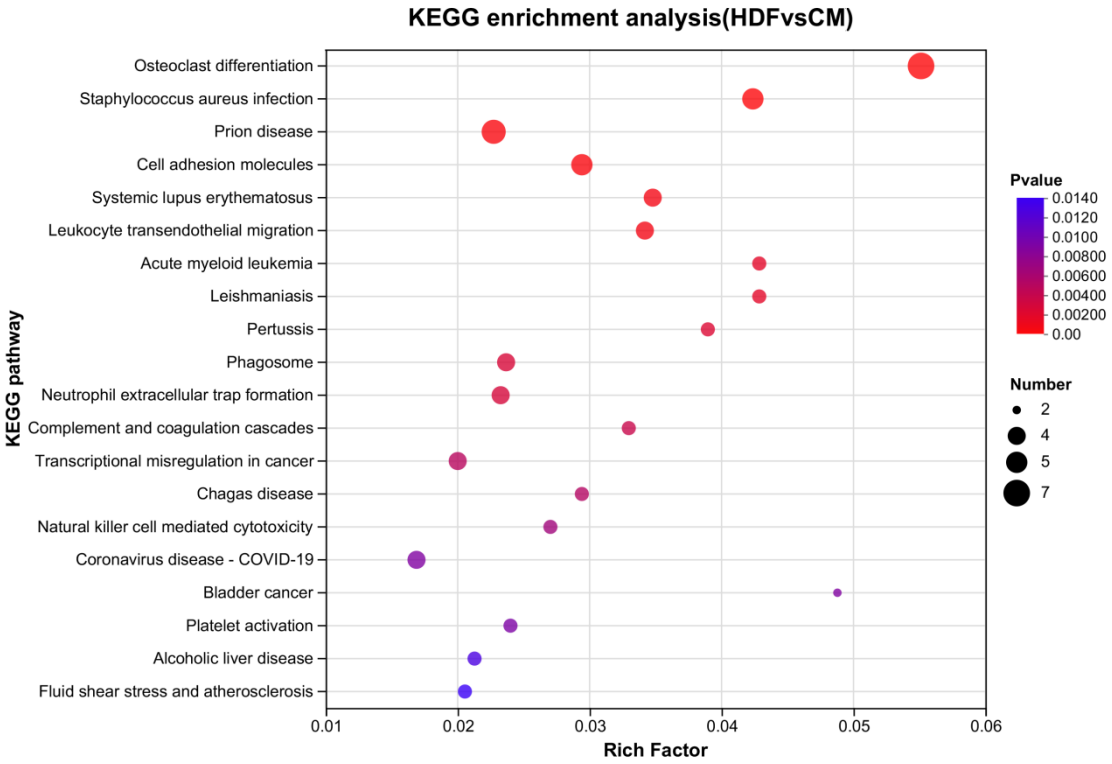
Supplemantary Figure S2

The effects of HBP on the contents of SCFAs



Supplementary Figure S3

KEGG functional enrichment analysis of HDF *vs* CM



Supplementary Figure S4

IPP of Degs from immune system and signaling transduction

