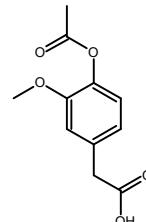
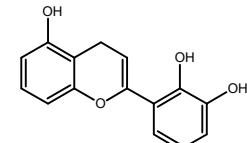
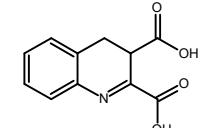
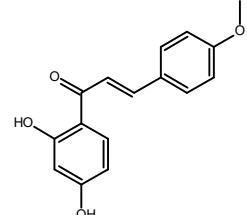
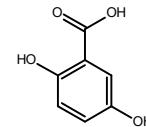
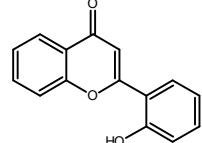
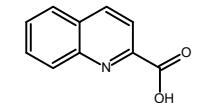
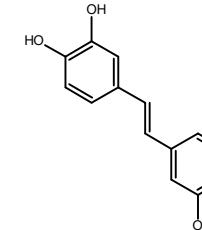
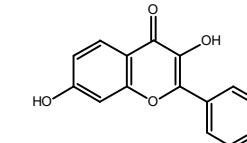
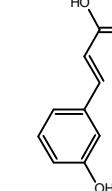
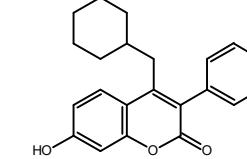
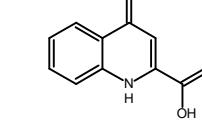
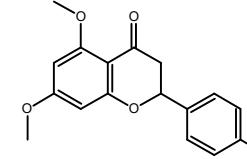
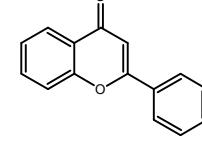
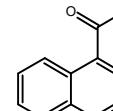
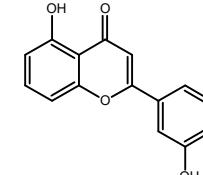
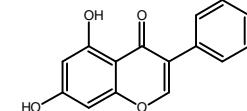
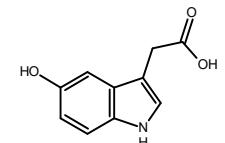
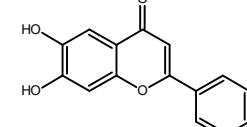
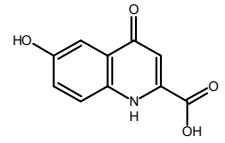
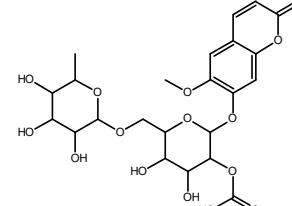
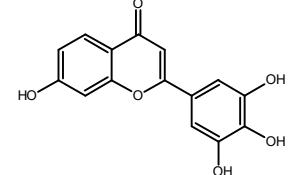
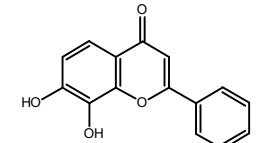
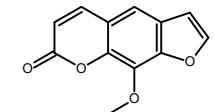
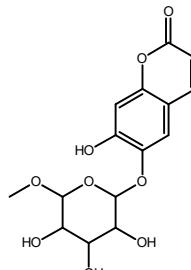
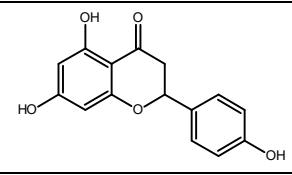
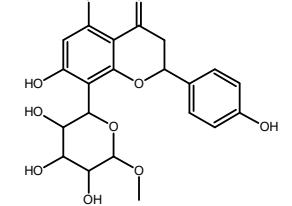


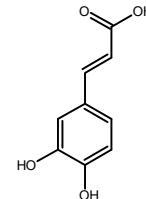
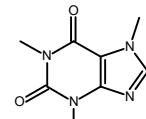
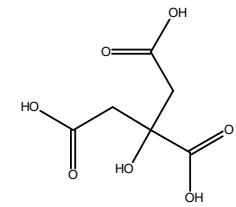
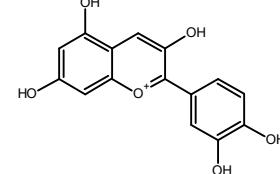
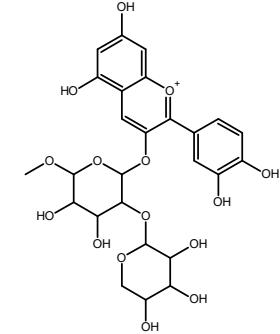
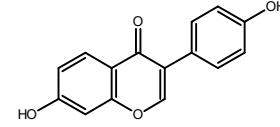
Supplementary Table S1: Compounds identified in the BPF extract by UHPLC-HRMS using FBMN-GNPS workflow.

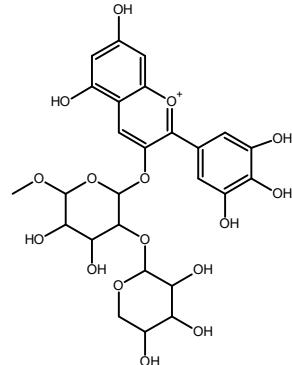
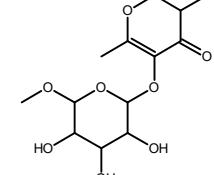
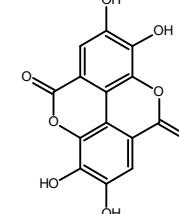
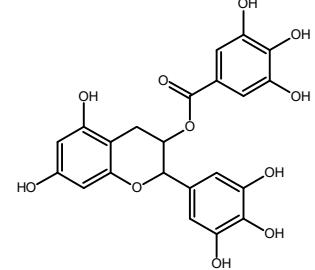
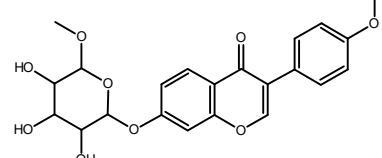
Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
2-(4-acetoxy-3-methoxyphenyl)acetic acid	Positive	Phenolic acid	C ₁₁ H ₁₂ O ₅	224.21	0.744272	
2,3-dihydroxyflavone	Positive	Flavone	C ₁₅ H ₁₀ O ₄	254.24	0.909874	
2,3-quinolinedicarboxylic acid	Negative	Quinolines and derivatives	C ₁₁ H ₇ NO ₄	217.18	0.809719	
2,4-dihydroxy-4-methoxychalcone	Negative	Chalcone	C ₁₆ H ₁₄ O ₄	270.28	0.727163	
2,5-dihydroxybenzoic acid	Negative	Phenolic acid	C ₇ H ₆ O ₄	154.12	0.937293	
2-hydroxyflavone	Positive	Flavone	C ₁₅ H ₁₀ O ₃	238.24	0.920667	
2-quinolinecarboxylic acid	Positive	Carboxylic acid	C ₁₀ H ₇ NO ₂	173.17	0.774372	

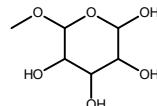
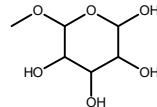
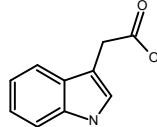
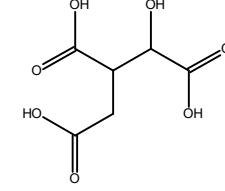
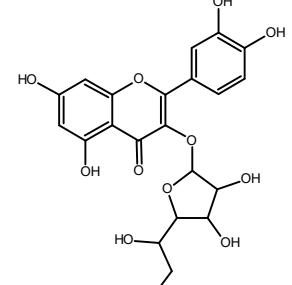
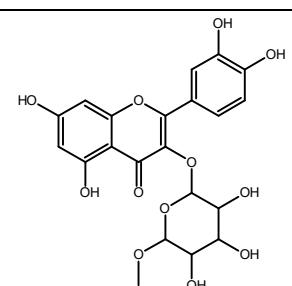
Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
3,4,5-trihydroxystilbene	Negative	stilbenoid	C ₁₄ H ₁₂ O ₃	228.24	0.729505	
3,7-dihydroxyflavone	Negative	flavonol	C ₁₅ H ₁₀ O ₄	254.24	0.816893	
3-hydroxycinnamic acid	Negative	Cinnamic acids and derivatives	C ₉ H ₈ O ₃	164.16	0.727908	
4-benzyl-7-hydroxy-3-phenylcoumarin	Negative	Isoflavonoids	C ₂₂ H ₁₆ O ₃	328.4	0.762824	
4-hydroxy-2-quinolinecarboxylic acid	Negative	quinoline alkaloid	C ₁₀ H ₇ NO ₃	189.17	0.893112	
4-hydroxy-5,7-dimethoxyflavanone	Negative	flavanone	C ₁₇ H ₁₆ O ₅	300.3	0.905707	
4-hydroxyflavone	Negative	flavone	C ₁₅ H ₁₀ O ₃	238.24	0.897316	

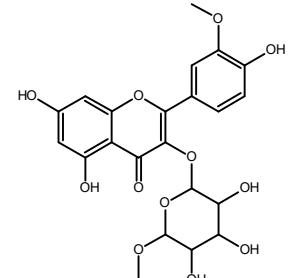
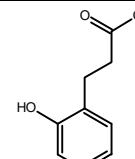
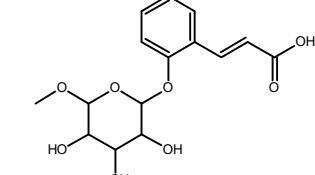
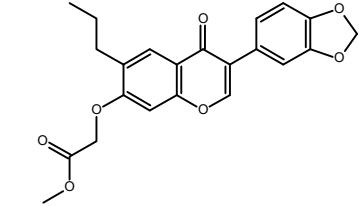
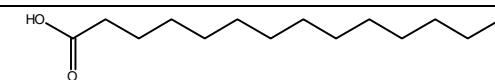
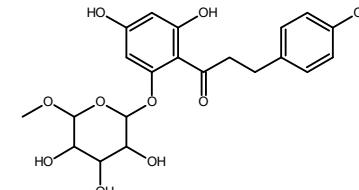
Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
4-quinolinecarboxylic acid	Negative	carboxylic acid	C ₁₀ H ₇ NO ₂	173.17	0.92021	
5,3-dihydroxyflavone	Negative	flavone	C ₁₅ H ₁₀ O ₄	254.24	0.943867	
5,7-dihydroxyisoflavone	Positive	isoflavone	C ₁₅ H ₁₀ O ₄	254.24	0.804587	
5-Hydroxyindole-3-acetic acid	Negative	Indoles and derivatives	C ₁₀ H ₉ NO ₃	191.18	0.750671	
6,7-dihydroxyflavone	Negative	flavone	C ₁₅ H ₁₀ O ₄	254.24	0.789647	
6-hydroxykynurenic acid	Negative	Quinolines and derivatives	C ₁₀ H ₇ NO ₄	205.17	0.72652	
6-methoxy-2-oxo-2h-chromen-7-yl 2-o-acetyl-6-o-(6-deoxyhexopyranosyl)hexopyranoside	Negative	Coumarins and derivatives	C ₂₄ H ₃₀ O ₁₄	542.5	0.796464	

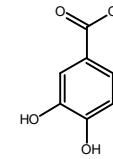
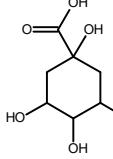
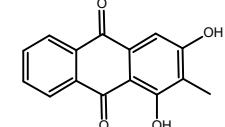
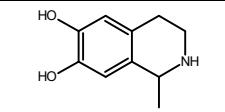
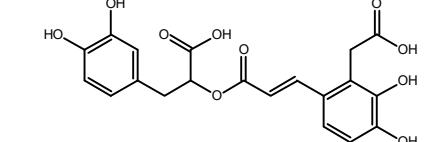
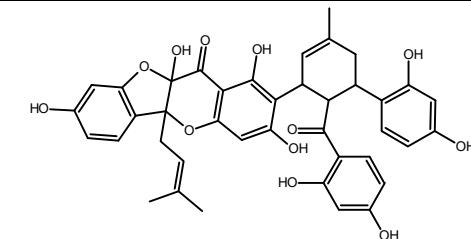
Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
7, 3, 4, 5-tetrahydroxyflavone	Negative	flavone	C ₁₅ H ₁₀ O ₆	286.24	0.797703	
7,8-dihydroxyflavone	Negative	flavone	C ₁₅ H ₁₀ O ₄	254.24	0.798348	
9-methoxy-7h-furo[3,2-g]chromen-7-one	Positive	coumarin	C ₁₂ H ₈ O ₄	216.19	0.718438	
Aesculin	Negative	coumarin	C ₁₅ H ₁₆ O ₉	340.28	0.915798	
Apigenin	Negative	flavone	C ₁₅ H ₁₀ O ₅	270.24	0.81928	
Apigenin-8-c-glucoside	Negative	flavone	C ₂₁ H ₂₀ O ₁₀	432.4	0.922017	

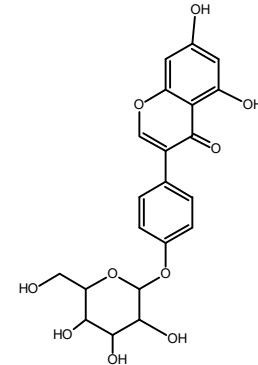
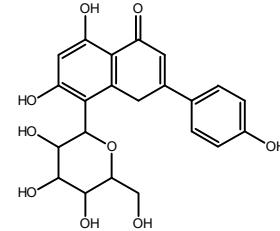
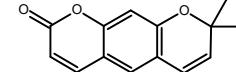
Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
Caffeic acid	Negative	Cinnamic acids and derivatives	C ₉ H ₈ O ₄	180.16	0.775537	
Caffeine	Positive	purine alkaloid	C ₈ H ₁₀ N ₄ O ₂	194.19	0.942158	
Citric acid	Negative	carboxylic acid	C ₆ H ₈ O ₇	192.12	0.994374	
Cyanidin	Positive	anthocyanidin	C ₁₅ H ₁₁ O ₆ ⁺	287.24	0.89836	
Cyanidine-3-o-sambubioside	Negative	flavonoid 3-O-glucoside	C ₂₆ H ₂₉ O ₁₅ ⁺	581.5	0.745008	
Daidzein	Negative	isoflavone	C ₁₅ H ₁₀ O ₄	254.24	0.809828	

Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
Delphinidin-3-o-sambubioside	Negative	flavonoid 3-O-glucoside	C ₂₆ H ₂₉ O ₁₆ ⁺	597.5	0.750745	
Dianthoside	Positive	glycoside	C ₁₂ H ₁₆ O ₈	288.25	0.902466	
Ellagic acid	Positive	polyphenol	C ₁₄ H ₆ O ₈	302.19	0.770144	
Epigallocatechin gallate	Negative	Flavonoids	C ₂₂ H ₁₈ O ₁₁	458.4	0.753114	
Formononetin-7-o-glucoside	Negative	Isoflavonoids	C ₂₂ H ₂₂ O ₉	430.4	0.865509	

Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
Galactose	Negative	saccharide	C ₆ H ₁₂ O ₆	180.16	0.976578	
Glucose	Negative	saccharide	C ₆ H ₁₂ O ₆	180.16	0.808242	
Indole-3-acetate	Negative	indole alkaloid	C ₁₀ H ₈ NO ₂ ⁻	174.18	0.965575	
Isocitric acid	Negative	carboxylic acid	C ₆ H ₈ O ₇	192.12	0.80607	
Isoquercetin	Negative	flavonol	C ₂₁ H ₂₀ O ₁₂	464.4	0.728476	
Isoquercitrin	Positive	flavonoid 3-O-glucoside	C ₂₁ H ₂₀ O ₁₂	464.4	0.946136	

Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
Isorhamnetin 3-galactoside	Positive	flavonoid 3-O-glucoside	C ₂₂ H ₂₂ O ₁₂	478.4	0.954748	
Melilotic acid	Negative	monocarboxylic acid	C ₉ H ₁₀ O ₃	166.17	0.813388	
Melilotoside	Positive	cinnamic acid	C ₁₅ H ₁₈ O ₈	326.3	0.926209	
Methyl 2-((3-(benzo[d][1,3]dioxol-5-yl)-4-oxo-6-propyl-4h-chromen-7-yl)oxy)acetate	Positive	isoflavone	C ₂₂ H ₂₀ O ₇	396.4	0.719086	
Myristic acid	Negative	fat acid	C ₁₄ H ₂₈ O ₂	228.37	0.854644	
Phlorhizin	Negative	chalcone	C ₂₁ H ₂₄ O ₁₀	436.4	0.803055	

Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
Protocatechuic acid	Positive	phenolic acid	C ₇ H ₆ O ₄	154.12	0.809345	
Quinic acid	Positive	phenolic acid	C ₇ H ₁₂ O ₆	192.17	0.803206	
Rubiadin	Negative	dihydroxyanthraquinone	C ₁₅ H ₁₀ O ₄	254.24	0.90528	
Salsolinol	Positive	isoquinoline alkaloid	C ₁₀ H ₁₃ NO ₂	179.22	0.844646	
Salvianolic acid D	Positive	cinnamic acid	C ₂₀ H ₁₈ O ₁₀	418.3	0.812422	
Sanggenon C	Positive	chalcone	C ₄₀ H ₃₆ O ₁₂	708.7	0.918472	

Compound	Ionization module	Chemical Class	Formula	Molecular Weight (g/mol)	MQScore	Molecular structure
Sophoricoside	Positive	isoflavone	C ₂₁ H ₂₀ O ₁₀	432.4	0.903133	 <p>The chemical structure of Sophoricoside is a complex polyphenol. It features a central 2-hydroxy-3,4-dihydro-2H-pyran ring substituted with a 4-hydroxyphenyl group at the 3-position and a 2-hydroxy-3-hydroxypropanoyl group at the 4-position. This core is further substituted with a 3-hydroxy-2H-chromene ring at the 2-position, which has a 4-hydroxyphenyl group at the 3-position and a 2-hydroxy-3-hydroxypropanoyl group at the 4-position.</p>
Vitexin	Negative	flavone	C ₂₁ H ₂₀ O ₁₀	432.4	0.928021	 <p>The chemical structure of Vitexin is a flavone derivative. It consists of a 2-hydroxy-3,4-dihydro-2H-chromene core with a 4-hydroxyphenyl group at the 3-position and a 2-hydroxy-3-hydroxypropanoyl group at the 4-position. A phenolic hydroxyl group is attached to the 2-position of the chromene ring.</p>
Xanthyletin	Positive	coumarin	C ₁₄ H ₁₂ O ₃	228.24	0.815527	 <p>The chemical structure of Xanthyletin is a coumarin derivative. It features a 2,2-dimethylchromene core with a carbonyl group at the 3-position and a 2-hydroxy-3-hydroxypropanoyl group at the 4-position.</p>