



Synergistic Effect of Pericarp of Mangosteen and Propolis from Stingless Bee Extracts on Nitric Oxide Scavenging Activity

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Supplementary Material

List of Tables

Tables	Content	Page
S1	Chemical constituents of pericarp mangosteen extract by ESI-LC-MS with positive mode	3
S2	Chemical constituents of Propolis extract by ESI-LC-MS with negative mode	4

S1 Chemical constituents of pericarp mangosteen extract by ESI-LC-MS with positive mode

RT*	m/z	Formular	Name	Group	Hit Score
6.470	465.1518	C ₁₃ H ₈ O ₆	Mallotochromene	Phloroglucinol	99.47
6.921	443.1706	C ₂₄ H ₂₆ O ₈	6-Prenylisocaviunin	Isoflavone	95.91
9.511	467.1686	C ₂₆ H ₂₆ O ₈	Polystachin	Flavone	92.50
11.044	413.1604	C ₂₃ H ₂₄ O ₇	Garcimangosone C	Xanthone	91.20
11.950	371.1135	C ₂₀ H ₁₈ O ₇	Idarubicinol aglycone	Anthraquinone	97.58
13.062	457.1867	C ₂₅ H ₂₈ O ₈	Atrovirone	Benzoquinone	96.88
13.330	487.1743	C ₂₉ H ₂₆ O ₇	Isogemichalcone B	Chalcone	96.31
13.606	339.1210	C ₁₈ H ₂₀ O ₅	5'-Hydroxy-3',4',7-trimethoxyflavan	Flavan	97.74
14.924	349.1046	C ₁₉ H ₁₈ O ₅	2-Methyl-5,7,8-Trimethoxyisoflavone	Flavone	98.46
14.963	389.0999	C ₂₁ H ₁₈ O ₆	Glycyrrhizaisoflavone B	Flavone	99.52
15.131	381.0944	C ₁₉ H ₁₈ O ₇	Santoflavone	Flavone	98.42
15.267	449.1581	C ₂₄ H ₂₆ O ₇	Mangostenol	Xanthone	96.82
15.476	463.1739	C ₂₅ H ₂₈ O ₇	Abyssinoflavanone VI	Flavanone	95.88
16.747	437.1593	C ₂₅ H ₂₄ O ₇	Lupinisoflavone L	Flavone	97.03
17.425	451.1753	C ₂₆ H ₂₆ O ₇	4-Benzyloxy-2'-hydroxy-3',4',5',6'-tetramethoxychalcone	Chalcone	96.95
17.782	449.1589	C ₂₆ H ₂₄ O ₇	Artonol E	Xanthone	91.00
17.960	341.1029	C ₁₉ H ₁₆ O ₆	Dihydro-O-methylsterigmatocystin	Xanthone	95.89
17.982	425.1972	C ₂₅ H ₂₈ O ₆	1,7-Dihydroxy-3,6-dimethoxy-2,8-diprenylxanthone	Xanthone	94.84
18.044	465.1902	C ₂₇ H ₂₈ O ₇	Euchrenone b4	Isoflavone	94.71
18.136	505.2220	C ₃₀ H ₃₂ O ₇	Euchretin C	Isoflavanone	96.86
18.305	381.1703	C ₂₃ H ₂₄ O ₅	Mangostinone	Xanthone	96.15
18.459	465.2274	C ₂₈ H ₃₂ O ₆	Garcinone E	Xanthone	96.75
18.565	411.1816	C ₂₄ H ₂₆ O ₆	α-Mangostin	Xanthone	95.20
19.041	463.2120	C ₂₈ H ₃₀ O ₆	Mangostenone B	Xanthone	92.15

*Retention time: Minute

S2 Chemical constituents of Propolis extract by ESI-LC-MS with negative mode

RT*	m/z	Formular	Name	Group	Hit Score
1.811	421.0776	C ₁₉ H ₁₈ O ₁₁	Mangiferin	Xanthone	99.08
1.936	331.0457	C ₁₆ H ₁₂ O ₈	3',4',5'-Trihydroxywogonin	Flavone	99.41
2.889	493.0983	C ₂₂ H ₂₂ O ₁₃	Pleurostimin 7-glucoside	Flavone	98.98
4.994	245.0454	C ₁₃ H ₁₀ O ₅	Coriandrone C	Isocoumarin	98.67
7.199	373.1293	C ₂₀ H ₂₂ O ₇	Rubone	Chalcone	99.37
7.224	403.1397	C ₂₁ H ₂₄ O ₈	Piceid	Stilbene	97.75
7.926	359.15	C ₂₀ H ₂₄ O ₆	Lariciresinol	Lignan	99.04
10.657	287.0559	C ₁₅ H ₁₂ O ₆	Eriodictyol	Flavanone	98.81
11.146	285.0405	C ₁₅ H ₁₀ O ₆	Luteolin	Flavone	99.81
12.361	337.1076	C ₂₀ H ₁₈ O ₅	2-Isoprenylemodin	Anthraquinone	98.38
14.917	271.061	C ₁₅ H ₁₂ O ₅	(-)-Naringenin	Flavanone	99.32
15.619	301.0714	C ₁₆ H ₁₄ O ₆	Hesperetin	Flavanone	99.27
15.869	329.0663	C ₁₇ H ₁₄ O ₇	7,3',4'-Trihydroxy-3,8-dimethoxyflavone	Flavone	98.41
16.233	299.0561	C ₁₆ H ₁₂ O ₆	Diosmetin	Flavone	99.69
17.223	315.0505	C ₁₆ H ₁₂ O ₇	Isorhamnetin	Flavonol	97.38
18.037	371.1501	C ₂₁ H ₂₄ O ₆	6,7-dihydroxy Bergamottin	Furanocoumarin	97.59
40.878	339.123	C ₂₀ H ₂₀ O ₅	Sophoraflavanone B	Flavanone	98.11
76.222	423.1806	C ₂₅ H ₂₈ O ₆	5,7,3',4'-Tetrahydroxy-6,5'-di-C-prenylflavanone	Flavanone	97.71
77.713	401.1232	C ₂₁ H ₂₂ O ₈	Irigenin Trimethyl Ether	Flavone	96.97
82.988	353.1391	C ₂₁ H ₂₂ O ₅	Xanthohumol	Chalcone	98.95
83.251	327.0869	C ₁₈ H ₁₆ O ₆	5-Hydroxy-7,2',5'-trimethoxyflavone	Flavone	98.89
83.277	353.1396	C ₂₁ H ₂₂ O ₅	7,8-(2,2-Dimethylpyrano)-3,4'-dihydroxy-5-methoxyflavan	Flavan	99.37
85.081	441.1551	C ₂₄ H ₂₆ O ₈	6-Prenylisocaviunin	Isoflavone	98.52
88.037	439.1394	C ₂₄ H ₂₄ O ₈	(+)-12a-Hydroxyerythynone	Isoflavone	97.05
88.539	439.1756	C ₂₅ H ₂₈ O ₇	Kenusanone B	Flavanone	96.79
89.792	325.1077	C ₁₉ H ₁₈ O ₅	2-Methyl-5,7,8-Trimethoxyisoflavone	Isoflavone	98.97
90.393	407.1864	C ₂₅ H ₂₈ O ₅	Kushenol A	Flavanone	97.40
91.02	453.1551	C ₂₅ H ₂₆ O ₈	5,2',4',5'-Tetrahydroxy-3-(3-hydroxy-3-methylbutyl)-6'',6''-dimethylpyrano[2'',3'':7,8]flavone	Flavone	96.01
91.621	507.2017	C ₂₈ H ₃₀ O ₆	Mangostenone B	Xanthone	96.42
93.037	369.0976	C ₂₀ H ₁₈ O ₇	Idarubicinol aglycone	Anthraquinone	99.05
93.501	395.1501	C ₂₃ H ₂₄ O ₆	dimethoxy Curcumin	Curcumin	99.06
94.315	379.1553	C ₂₃ H ₂₄ O ₅	Mangostinone	Xanthone	98.25
95.43	365.1026	C ₂₁ H ₁₈ O ₆	Derrubone	Isoflavone	99.10
95.555	453.1913	C ₂₆ H ₃₀ O ₇	Leachianone D	Flavanone	96.29
96.019	463.2123	C ₂₈ H ₃₂ O ₆	Garcinone E	Xanthone	98.55
96.357	437.1599	C ₂₅ H ₂₆ O ₇	Lupinisoflavone J	Isoflavone	97.32
96.658	467.1706	C ₂₆ H ₂₈ O ₈	Artoindonesianin B	Flavone	98.47
97.046	447.2174	C ₂₆ H ₂₈ O ₃	5-Methoxy-7,8-diprenylflavone	Flavone	98.70
99.038	383.1134	C ₂₁ H ₂₀ O ₇	Licofuranocoumarin	Furanocoumarin	98.68
99.214	409.1654	C ₂₄ H ₂₆ O ₆	α-Mangostin	Xanthone	97.24
100.417	421.2015	C ₂₆ H ₃₀ O ₅	Kushenol R	Flavanone	95.71

*Retention time: Minute