

Table S1: Chemical composition. UHPLC-HRMS data of compounds detected in the ethanolic extracts of propolis from Tunisia.

Peak	Tr (min)	[M-H] ⁺	Molecular formula	Fragmentation pattern	Tentative identification	Reference
1	5.83	623.20	C ₂₈ H ₃₂ O ₁₆	271	Dimethoxy-naringenin diglucoside	Ghallab et al., 2021
2	6.71	609.1854	C ₂₈ H ₃₄ O ₁₅	301	Hesperidin	Taamalli et al., 2015
3	7.35	359.19	C ₁₉ H ₂₀ O ₇	341, 299, 163, 119	<i>p</i> -coumaric acid derivative	Saftić et al., 2018; Svečnjak et al., 2020
4	7.89	353.27	C ₁₆ H ₁₈ O ₉	191, 179	Caffeoyl quinic acid	Ghalieb et al., 2021
5	7.98	285.0759	C ₁₆ H ₁₄ O ₅	253, 271	Pinobanksin-methyl-ether	Bertrams et al., 2013
6	8.05	315.0875	C ₁₇ H ₁₆ O ₆	255, 151	Dihydroxy-dimethoxyflavone	Vieira de Moraes et al., 2021
7	8.67	271.0610	C ₁₅ H ₁₂ O ₅	253, 151	Pinobanksin	Sartori et al., 2022
8	8.96	299.0548	C ₁₆ H ₁₂ O ₆	255, 227	Hispidulin	Vieira de Moraes et al., 2021
9	9.14	329.0657	C ₁₇ H ₁₄ O ₇	299, 271, 243	tricin	Vieira de Moraes et al., 2021
10	9.34	335.26	C ₁₅ H ₁₂ O ₉	318, 317	3,5,7,3',4',5'-hexahydroxy-flavonol (myricetin derivative) isomer	Viscardi et al., 2017
11	10.35	335.23	C ₁₅ H ₁₂ O ₉	318	3,5,7,3',4',5'-hexahydroxy-flavonol (myricetin derivative) isomer	Viscardi et al., 2017
12	10.41	253.0495	C ₁₅ H ₁₀ O ₄	119	Chrysin	Vieira de Moraes et al., 2021
13	10.85	255.0662	C ₁₅ H ₁₂ O ₄	213, 151	Pinocembrin	Bertrams et al., 2013
14	11.06	313.0721	C ₁₇ H ₁₄ O ₆	253, 271	Pinobanksin-acetate	Bertrams et al., 2013
15	11.23	319.27	C ₁₆ H ₁₆ O ₇	304, 301, 137	4'-O-Methyl-epigallocatechin	Meng et al., 2001; Jeong et al., 2003
16	11.37	327.0873	C ₁₈ H ₁₆ O ₆	271, 253	Pinobanksin-propionate	Sartori et al., 2022
17	11.82	355.19	C ₂₀ H ₂₀ O ₆	271, 253, 211	Pinobanksin-3-O-pentanoate	Ghallab et al., 2021
18	12.13	325.19	C ₁₅ H ₁₈ O ₈	187, 145, 163	<i>p</i> -coumaric acid derivative	Svečnjak et al., 2020
19	12.14	325.19	C ₁₅ H ₁₈ O ₈	187, 145, 163	<i>p</i> -coumaric acid derivative	Svečnjak et al., 2020
20	12.43	385.20	C ₂₀ H ₁₈ O ₈	341, 282, 193	Ferulic acid dimer	Ahmed et al., 2017;
21	12.95	347.22	C ₁₆ H ₁₂ O ₉	169, 125, 124	Gallic acid derivative	Pierson et al., 2014
22	14.01	315.24	C ₁₆ H ₁₂ O ₇	300, 284, 161	Isorhamnetin (Quercetin 3'-methyl ether)	Castro et al. 2014; Saftić et al., 2018
23	14.29	315.24	C ₁₆ H ₁₂ O ₇	300, 271	Rhamnetin (Quercetin 7-methyl ether)	Castro et al. 2014
24	14.67	301.26	C ₁₅ H ₁₀ O ₇	179, 151	Quercetin	Yuan et al., 2020
25	15.81	383.39	C ₂₁ H ₂₀ O ₇	163, 145, 119	<i>p</i> -coumaric acid derivative	Saftić et al., 2018; Svečnjak et al., 2020
26	16.54	583.24	C ₃₆ H ₅₆ O ₆	453	Oleanolic acid 3-O-(3'-methyl)glutarate or Oleanolic* acid 3-O-(3',3'-dimethyl)succinate (terpenoid)	-
27	17.12	573.46	C ₃₂ H ₄₆ O ₉	555	Ganoderic acid R or Me(triterpenoid)	Sahlan et al., 2021
28	19.19	583.48	C ₃₆ H ₅₆ O ₆	453	Oleanolic acid 3-O-(3'-methyl)glutarate or Oleanolic* acid 3-O-(3',3'-dimethyl)succinate (terpenoid)	-

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