In vitro α-glucosidase inhibition by Brazilian medicinal plant extracts characterized by ultra-high performance liquid chromatography coupled to mass spectrometry

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Table S1. ^{13}C NMR data of F4 from *Hyptis monticola*, composed of isoquercetrin (quercetin-3-*O*-*β*-glucoside) and hyperoside (quercetin-3-*O*-*β*-galactoside), measured at 100 MHz in DMSO-d6, δ in ppm.

Position	Isoquercetrin	Hyperoside
2	156.63	156.63
3	133.77	133.94
4	177.95	177.95
5	161.69	161.69
6	99.13	99.13
7	164.61	164.61
8	93.96	93.96
9	156.63	156.63
10	104.43	104.37
1'	122.06	121.62
2'	115.64	115.64
3'	145.29	145.29
4'	148.93	148.93
5'	116.66	116.40
6'	122.45	121.55
1''	101.31	102.25
2''	74.55	71.66
3''	76.95	73.64
4''	70.39	68.38
5''	78.03	76.30
6''	61.42	60.59

Table S2. ^{1}H NMR data of F4 from *Hyptis monticola*, composed of isoquercetrin (quercetin-3-*O*-*β*-glucoside) and hyperoside (quercetin-3-*O*-*β*-galactoside) measured at 400 MHz in DMSO-*d6*, δ in ppm, *J* in Hz

Position	Isoquercetrin	Hyperoside
2	-	-
3	-	-
4	-	-
5	-	-
6	6.21 (d) (1.4 Hz)	6.21 (d) (1.4 Hz)
7	-	-
8	6.41 (d) (1.7 Hz)	6.41 (d) (1.7 Hz)
9	-	-
10	-	-
1'	-	-
2'	7.54 (d) (2.0 Hz)	7.54 (d) (2.0 Hz)
3'	-	-
4'	-	-
5'	6.82 (d) (8.5 Hz)	6.82 (d) (8.5 Hz)
6'	7.67 (d) (8.5 Hz)	7.67 (d) (8.5 Hz)
1''	5.47 (d) (6.9 Hz)	5.38 (d) (7.7 Hz)
2''	3.56	3.56
3''	3.37	3.37
4''	3.65	3.65
5''	3.62	3.62
6''	3.29; 3.44	3.29; 3.44
7-OH	12.64 (s)	12.64 (s)
10-OH	10.89 (s)	10.89 (s)

Table S3: Enzymatic inhibition (%) of *Lippia origanoides* extract (LOVV) and fractions at 100 µg/mL

SAMPLE	% INHIBITION	DS	IC_{50} µg/mL	DS
Lippia origanoides				
F01	29.9	3.3		
F02	10.0	2.7		
F03	0.7	5.9		
F04	53.2	4.8		
F05	86.4	0.7	51.4	1.3
F06	46.7	1.0		
F07	44.4	0.2		
F08	74.4	0.1	15.9	2.5
F09	20.3	0.8		
Naringenin			19.0	2.1
Pinocembrin			39.9	1.3

Table S4: Enzymatic inhibition (%) of *Hyptis monticola* fractions at 100 µg/mL

SAMPLE	% INHIBITION	DS	IC_{50} µg/mL	DS
F1	8.8	1.4		
F2	23.9	2.9		
F3	43.3	0.9		
F4	20.2	1.7		
F5	35.0	1.3		
F6	40.1	1.1		
F7	26.1	1.6		
F12	33.4	1.2		
F13	16.7	1.2		
F14	14.7	1.4		
F15	36.5	1.4		
F16	25.9	0.9		
F17	62.7	1.4	36.5	2.3
F18	74.0	1.0	33.5	1.4
F19	32.6	1.6		
F20	60.9	0.8	99.3	0.7
F21	15.4	1.4		
F22	66.3	1.2	42.9	1.0

Table S5: Kinetics of α-glucosidase enzyme in the absence and in the presence of Naringenin and Pinocembrin

	Negative control	**Naringenin**	**Pinocembrin**
K_M (mM)	0.08	0.12	0.12
V_{max} (μkat)	0.07	0.07	0.02