

Total Polyphenols Content

Reagent:

Na₂CO₃, p.a. (PENTA s.r.o., Brno, Czech Republic)

Folin-Ciocalteu (FC), p.a. (PENTA s.r.o., Brno, Czech Republic)

Gallic acid 100%, p.a. (PENTA s.r.o., Brno, Czech Republic)

Protocol:

- 1) Weight of 0.1 g of the sample;
- 2) Add 10 ml of distilled water, homogenize in vortex 2000 rpm MS2 Minishaker (IKA, Staufen, Germany);
- 3) 10 minutes shaking at 150 rpm, Li-3 (Nedform s.r.o., Valašské Meziříčí, Czech Republic);
- 4) Filtration (Whatman grade 1);
- 5) Add 1 ml of the sample extract, 5 ml of FC (10% v/v) and 4 ml of Na₂CO₃ (7.5% w/v) in 25 mL volumetric flask;
- 6) The solution with 1.0 mL of water instead of the sample was used as the blank;
- 7) 30 minutes incubation in dark;
- 8) Fill to 25mL by distilled water;
- 9) Measure the sample absorbance at 765 nm against the blank (CE7210 Diet-Quest, Cambridge, England).

TPC standard solution:

The calibration curve is prepared according to the following scheme.

c mmol/l	Gallic acid 0.5 mg/mL (mL)	Distilled water (mL)
0	0	10
0.0125	0.25	9.75
0.025	0.5	9.5
0.05	1	9
0.1	2	8
0.2	4	6
0.5	10	0