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Working

Determination of flavonoid content

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Jorge Carlos Ruiz Ruiz[1]

[1]Universidad Anáhuac Mayab

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Jorge Carlos Ruiz Ruiz

ABSTRACT

Flavonoid content determination using the aluminum chloride method.

EXTERNAL LINK

https://doi.org/10.1371/journal.pone.0213493

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Dewanto V, Wu X, Adom KK, Liu RH. Thermal processing enhances the nutritional value of tomatoes by increasing total antioxidant activity. J Agric Food Chem. 2002; 50: 3010-3014.

PROTOCOL STATUS

Working

MATERIALS

NAME	CATALOG #	VENDOR
Sodium nitrite	View	P212121
water		
aluminun chloride		Sigma Aldrich
sodium carbonates		Sigma Aldrich
catechin		Sigma Aldrich

SAFETY WARNINGS

1 An aliquot of sample (0.1 mL) was mixed with 0.4 ml distilled water in a 1.5 mL microcentrifuge tube.

2 0.03 mL of 5% $NaNO_2$ was added and the mixture was allowed to react for 5 min.

3 Following this, 0.03 mL of 10% $AlCl_3$ was added and the mixture stood for a further 5 min.

4 Finally, the reaction mixture was treated with 0.2 mL of 1 M Na_2CO_3 and 0.24 mL distilled water, and the absorbance at 510 nm.

5 Catechin (Sigma-Aldrich) was used as the standard and the results were expressed as µg/mL of catechin equivalents (CE).