



Proanthocyanidin Microplate Assay Kit

Catalog # AS0186

Detection and Quantification of Proanthocyanidin Content in Tissue extracts, Other biological fluids Samples.

This instruction must be read in its entirety before using this product.

For research use only, Not for use in diagnostic procedures.

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I. INTRODUCTION

Proanthocyanidins are a class of polyphenols found in a variety of plants. Chemically, they are oligomeric flavonoids. Many are oligomers of catechin and epicatechin and their gallic acid esters. More complex polyphenols, having the same polymeric building block, form the group of tannins.

Proanthocyanidin Microplate Assay Kit provides a convenient tool for sensitive detection of Proanthocyanidin in a variety of samples. The Proanthocyanidin is subsequently measured by a coupled chemical reaction system with a colorimetric readout at 500 nm.

II. KIT COMPONENTS

Component	Volume	Storage
96-Well Microplate	1 plate	
Assay Buffer	30 ml x 4	4 °C
Reaction Buffer	8 ml x 1	4 °C
Dye Reagent	Powder x 1	4 °C
Dye Reagent Diluent	10 ml x 1	4 °C
Standard	Powder x 1	4 °C
Technical Manual	1 Manual	

Note:

Standard: add 1 ml Assay Buffer to dissolve before use, the concentration will be 10 mmol/L.

Dye Reagent: add 10 ml Dye Reagent Diluent to dissolve before use.

III. MATERIALS REQUIRED BUT NOT PROVIDED

1. Microplate reader to read absorbance at 500 nm
2. Distilled water
3. Pipettor
4. Pipette tips
5. Mortar
6. Centrifuge
7. Timer

IV. SAMPLE PREPARATION

1. For tissue samples

Weigh out 0.1 g tissue, homogenize with 1 ml Assay Buffer, then transfer it to the microcentrifuge tubes; incubate at 60 °C water bath for 1 hour; centrifuge at 10,000g for 10 minutes, take the supernatant into a new centrifuge tube for detection.

2. For liquid samples

Detect directly.

V. ASSAY PROCEDURE

Add following reagents into the microplate:

Reagent	Sample	Standard	Blank
Sample	20 μ l	--	--
Standard	--	20 μ l	--
Assay Buffer	--	--	20 μ l
Reaction Buffer	80 μ l	80 μ l	80 μ l
Dye Reagent	100 μ l	100 μ l	100 μ l
Mix, incubate at 37 °C for 20minutes, record absorbance measured at 500 nm.			

VI. CALCULATION

1. According to the weight of sample

$$\begin{aligned} \text{Proanthocyanidin (mmol/g)} &= (C_{\text{Standard}} \times V_{\text{Standard}}) \times (\text{OD}_{\text{Sample}} - \text{OD}_{\text{Blank}}) / (\text{OD}_{\text{Standard}} - \\ &\quad \text{OD}_{\text{Blank}}) / (W \times V_{\text{Sample}} / V_{\text{Assay}}) \\ &= 0.01 \times (\text{OD}_{\text{Sample}} - \text{OD}_{\text{Blank}}) / (\text{OD}_{\text{Standard}} - \text{OD}_{\text{Blank}}) / W \end{aligned}$$

2. According to the volume of sample

$$\begin{aligned} \text{Proanthocyanidin (mmol/ml)} &= (C_{\text{Standard}} \times V_{\text{Standard}}) \times (\text{OD}_{\text{Sample}} - \text{OD}_{\text{Blank}}) / (\text{OD}_{\text{Standard}} - \\ &\quad \text{OD}_{\text{Blank}}) / V_{\text{Sample}} \\ &= 0.01 \times (\text{OD}_{\text{Sample}} - \text{OD}_{\text{Blank}}) / (\text{OD}_{\text{Standard}} - \text{OD}_{\text{Blank}}) \end{aligned}$$

C_{Standard} : the concentration of standard, 10 mmol/L = 0.01 mmol/ml;

W : the weight of sample, g;

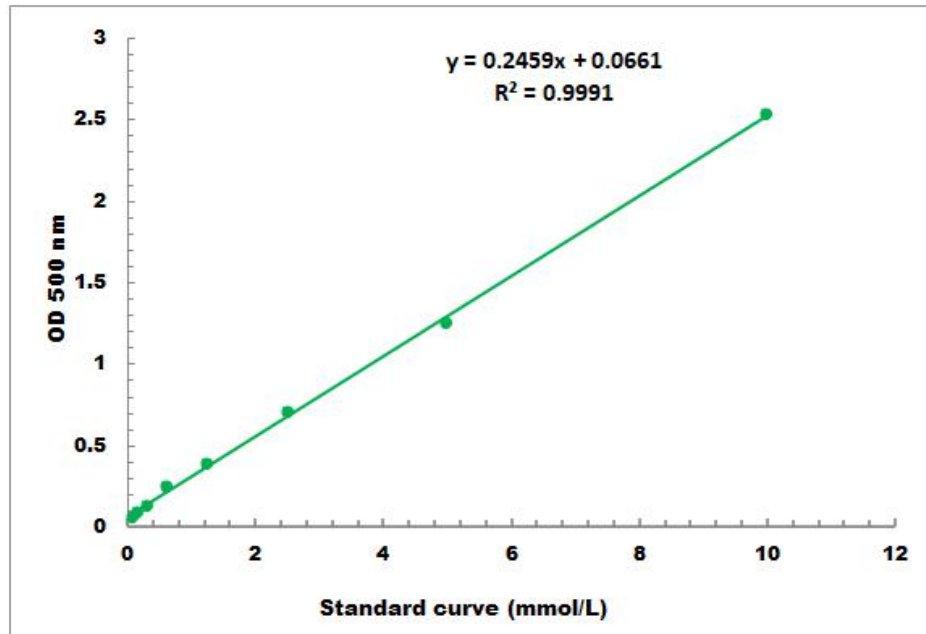
V_{Standard} : the volume of standard, 0.02 ml;

V_{Sample} : the volume of sample, 0.02 ml;

V_{Assay} : the volume of Assay Buffer, 1 ml.

VII. TYPICAL DATA

The standard curve is for demonstration only. A standard curve must be run with each assay.



Detection Range: 0.1 mmol/L - 10 mmol/L

VIII. TECHNICAL SUPPORT

For troubleshooting, information or assistance, please go online to www.sabbiotech.cn or contact us at techcn@signalwayantibody.com

IX. NOTES