



Dynamic Test Kits for R&D  
and Quality Control

# Anthocyanins Assay Kit

***KB-03-015***

***625 test (96 well plate)***

# **BOCKit**

A brand of  BioQuChem

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All chemicals should be handled with

- This kit is for R&D use only

# Introduction

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Anthocyanins represent the most important group of water-soluble pigments in the visible region detectable by the human eye. These pigments are responsible for the different colors ranging from red to blue present in various fruits, vegetables and cereals, accumulated in cell vacuoles. Anthocyanins have different functions in the plant such as the attraction of pollinators for the subsequent dispersion of seeds and the protection of the plant against the effects of ultraviolet radiation and against viral and microbial contamination.

Interest in anthocyanin pigments and their aglycans, anthocyanidins, in scientific research have increased in recent years, due not only to the color they confer on products containing them but also to their likely role in the reduction of coronary diseases, cancer or diabetes and to its anti-inflammatory effects and upturn of visual acuity and cognitive behavior. Therefore, in addition to their functional role as colorants, anthocyanins are potential agents in the production of products with added value for human consumption.

Anthocyanins measure kit is an easy, fast and reliable method for detecting anthocyanins and anthocyanidins in solution, like in wine or in berry extracts.

# Materials

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BQCKit Anthocyanins Assay kit KB-03-015 625 tests contains:

Product	Quantity	Storage
Reagent A	1 bottle of 125 mL	RT
Reagent B	1 bottle of 125 mL	RT

# Assay Protocol

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## Performing the assay

1. Considering a 96 well plate\*\*:
  - Add 200  $\mu\text{L}$  of Reagent A in one well
  - Add 200  $\mu\text{L}$  of Reagent B in other well
2. Add 20  $\mu\text{L}$  of sample in each well.
3. Shake microplate 1 min and wait 10 min.
4. Measure the absorbance at 510 nm (anthocyanin maximum absorption) and at 700 nm (for turbidity correction).

\*\* In 1 mL cuvette add 910  $\mu\text{L}$  of Reagent A and 90  $\mu\text{L}$  of sample. Same amounts with Reagent B.

# Data Analysis

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Calculate absorbance due to anthocyanins with the following formula:

$$A' = (A_{510 \text{ nm Reagent A}} - A_{700 \text{ nm Reagent A}}) - (A_{510 \text{ nm Reagent B}} - A_{700 \text{ nm Reagent B}})$$

Total anthocyanins in mg/L calculated as equivalent of cyanidin 6-O-glucoside is:

$$[\text{anthocyanins}] \text{ (mg/L)} = [A' \times (\text{DF}) \times 449.2 \times 1000] / 26900$$

Where DF is the dilution factor used

# Warranties and Limitation of Liability

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Our partner Bioquochem (BQCkit) shall not in any event be liable for incidental, consequential or special damages of any kind resulting from any use or failure of the products, even if Bioquochem (BQCkit) has been advised of the possibility of such damage including, without limitation, liability for loss of use, loss of work in progress, down time, loss of revenue or profits, failure to realize savings, loss of products of buyer or other use or any liability of buyer to a third party on account of such loss, or for any labor or any other expense, damage or loss occasioned by such product including personal injury or property damage is caused by Bioquochem's gross negligence. Any and all liability of Bioquochem (BQCkit) hereunder shall be limited to the amounts paid by buyer for product.

Buyer's exclusive remedy and Bioquochem's sole liability hereunder shall be limited to a refund of the purchase price, or the replacement of all material that does not meet our specifications.

Said refund or replacement is conditioned on buyer giving written notice to Bioquochem (BQCkit) within 30 days after arrival of the material at its destination.

Expiration date: 1 year from the date of delivery

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