

Blue Viability Assay Kit

KC04002 (Fluorometric)

1250/5000 test (96 well plate)

BOCKit

A brand of  BioQuoChem

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All chemicals should be handled with care



➤ This kit is for R&D use only

Introduction

A variety of methods have been realized to examine cell proliferation in population of cells. Those, cover the determination of antigens by immunohistochemistry, quantification of DNA synthesis, and quantification of the reducing environment of the cells. When cells are metabolizing, they support a reducing environment with their cytosol. This reduced state can be quantified spectrophotometrically through the transformation of fluorometric redox indicators.

The Bioquochem Blue Viability Assay Reagent is utilized to quantitatively measure the viability of bacteria, fungi and mammalian cell lines, by including a fast, sensible and reliable fluorometric growth signal.

Materials

BQCKit Blue Viability Assay kit *KC04002-1250 tests* contains:

Product	Quantity	Storage
Blue Viability Reagent*	1 bottle of 25 mL	4°C

*This reagent is stable at room temperature, but once received is recommended to keep it at 4°C

BQCKit Blue Viability Assay kit *KC04002-5000 tests* contains:

Product	Quantity	Storage
Blue Viability Reagent*	1 bottle of 100 mL	4°C

*This reagent is stable at room temperature, but once received is recommended to keep it at 4°C

Assay Principle

The BQCell Blue Viability Assay procures a fluorometric method for measuring the number of viable cells. The indicator dye resazurin is used to test the metabolic capacity of cells (a sign of cell viability). Viable cells preserve the capacity to reduce resazurin to resorufin, which is extremely fluorescent. Nonviable cells lose metabolic capacity fastly, do not decrease the indicator dye, and do not create a fluorescent signal.

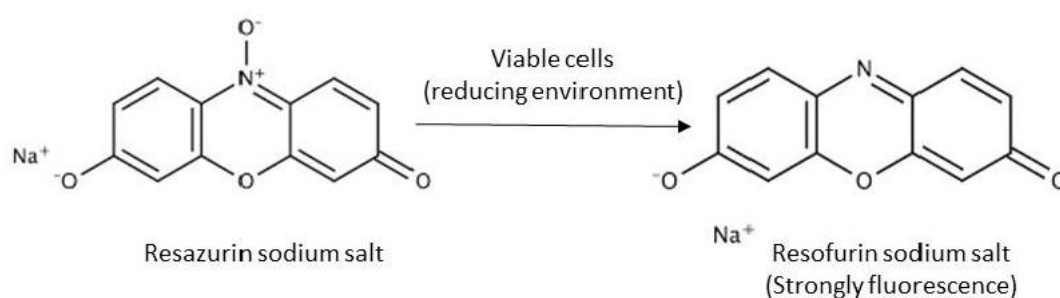


Figure 1. Principle of the assay reaction

Resofurin is excreted in the medium allowing the continuous monitoring of the proliferation and / or cytotoxicity of substances on human cells, animals, bacteria and even fungi. This dye is not very toxic to cells, and allows continuous studies in the same cells, saving time, especially in primary cultures where cells are very limited. This kit is also very sensitive and highly reproducible.

Assay Protocol

Performing the assay

1. Set up 96-well assay plates containing cells in culture medium
2. Perform the experiment under study
3. Add 20 μL /well of BQCell Blue Viability Reagent.

NOTE: If you use a different size of plates, add a 20% of the initial volume of culture medium.

4. Mixture during 15 seconds
5. Incubate using standard cell culture conditions for 1–4 hours.

NOTE: Take in account that extended incubation periods may be used for some applications.

6. Shake the plate for 15 seconds and read the fluorescence at:

λ excitation: 560 nm

λ emission: 590 nm

Data Analysis

Subtract the average of fluorescence values of the culture medium background from all fluorescence values of experimental wells (optional).

NOTE: Fluorescence can be stopped and stabilized adding 3% of SDS.

Calculations:

The % reduction of BQCell Blue Viability reagent for each case is calculated by using the formula:

$$\% \text{ reduction} = (F_x - F_{\text{control}}) / (F_{\text{control}})$$

Where:

F_x is the fluorescence signal of the sample

F_{control} is the signal from the control (the culture medium supplemented with 20 vol.% BQCell blue viability reagent)

Warranties and Limitation of Liability

Bioquochem 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 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 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 within 30 days after arrival of the material at its destination.

Expiration date: 1 year from the date of delivery

For further details, please refer to our website www.bqckit.com.

