

## 1. PRODUCT DESCRIPTION

**GENIUL\_ 4900018001**

**Reaction Buffer 10x concentrated, 1 vial of 5 ml**

### What this product does

This product has been designed in order to increase the efficiency of viability PCR procedures. Depending on the complexity of the sample, and PCR procedure, the suppression of dead cell signals couldn't be complete; leading to an overestimation of viable cells levels. To overcome this limitation and to increase the efficiency of viability PCR, GeniUL Reaction buffer + has been developed to achieve more efficient exclusion of dead cell signals and thus minimize false-positive signals.

GeniUL Reaction buffer + can be used in order to expose the cells to membrane-destabilizing conditions during viability PCR reagents exposure, thereby obtaining further destabilization of already damaged cells to allow increased dye uptake without affecting permeability of live cells.

Validated for viability PCR technology.

GeniUL Reaction buffer + suitable for use in gram-negative bacteria as Enterobacteriaceae and some Pseudomonas, but also with Mycobacteria.

**Form:** Liquid

**Storage instructions:** Can be stored at room temperature but preferably store in the lab fridge

**Constituent:** Sterile distilled water.

**Note:** Reaction buffer 10x concentrated.

### Intended use

For Research Use Only

### Contents

Reaction Buffer 10x concentrated, 1 vial of 5 ml

### Additional materials or equipment required but not provided

EMA or PEMAX dyes

GeniUL Photo-activation system

Isothermal system for micro-tubes incubation (GeniUL Dark box)

### Storage & shelf life

Store Reaction buffer + in the fridge. Protect from direct light.

- Concentrate is stable at least for 12 months from date of manufacture.
- 1x or 2x diluted solution should be stored at 2-8°C. If solution becomes cloudy discard and make fresh solution.
- Temperatures below 6 °C (44 degrees F) may cause the contents precipitate. Allow tempering and mix up to complete dissolution previous to use.

### Microbiological state

Sterile product (s).

## Specimen & reagent preparation

Refer to Procedure. See section 2: Operating procedure

### General Rules

Please, carefully read the MSDS for this product.

This product is sold for research purposes. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified, individual experienced, in handling potentially hazardous chemicals.

Users should make independent decisions regarding completeness of the information based on all sources available.

GeniUL shall not be held liable for any damage resulting from handling or contact with the above product.

## 2. OPERATING PROCEDURE

The buffer is provided as concentrates (10x) and can be diluted to a 1x or 2x formulation.

To make a 2x Reaction buffer + solution, dilute concentrate 10x with sterile distilled water.

- Use 5 ml Reaction buffer + concentrate per 20 ml sterile distilled water.
- Add the total volume of sterile distilled water into a sterile 10x Standard buffer vial.
- Stir briefly.

To make a 1x Reaction buffer + solution, dilute concentrate 10x with sterile distilled water.

- Use 5 ml Reaction buffer + concentrate per 45 ml sterile distilled water.
- Add the total volume of sterile distilled water into a sterile 10x Standard buffer vial.
- Stir briefly

Use 1x solution if you need to work with pelleted cells.

Use 2x solution if you need to work with cell suspension diluting them  $\frac{1}{2}$  with the buffer 2x up to final concentration 1x.

If diluted solution becomes cloudy, discard and make fresh solution.

## 3. WARRANTY AND DISCLAIMER OF LIABILITY

GeniUL warrants that this product is free from defects in materials and workmanship through the expiration date printed on the label and only if the following are complied with:

(1) The product is used according to the guidelines and instructions set.

(2) GeniUL does not warrant its product against any and all defects when: the defect is as a result of material or workmanship not provided by GeniUL; defects caused by misuse or use contrary to the Instructions supplied, or if the product is contaminated by improper handling or storage.

(3) All warranties of merchantability and fitness for a particular purpose, written, oral, expressed or implied, shall extend only for a period of one year from the manufacturing date. There are no other warranties that extend beyond those described in this document.

(4) GeniUL does not undertake responsibility to any purchaser of its product for any undertaking, representation or warranty made by any dealers or distributors selling its products beyond those herein expressly expressed unless expressed in writing by an officer of GeniUL.

(5) GeniUL does not assume responsibility for incidental or consequential damages, including, but not limited to responsibility for loss of use of this product, removal or replacement labor, loss of time, inconvenience, and expenses for telephone calls, shipping expenses, loss or damage to property or loss of revenue, personal injuries or wrongful death.

(6) GeniUL reserves the right to replace or allow credit for any modules returned under this warranty.

#### 4. CONTACT AND SUPPORT

If you have questions or experience problems with this or any other product of GeniUL, please contact our technical support staff (see details on [www.geniul.com](http://www.geniul.com)). Our scientists are committed to provide assistance quickly and effectively. We also would like to you contact us if you have suggestions to improve our product performance or the use of our products in new forms or applications.

**Instrument Útils de Laboratori GeniUL, S.L.**

Edifici GAIA – Parc UPC  
Rambla de Sant Nebridi 22  
08222 Terrassa (Barcelona)  
Spain  
T.: +34 936193012 F.: +34 2740144  
[geniul@geniul.com](mailto:geniul@geniul.com)