

1. PRODUCT DESCRIPTION

GENIUL_4900013150

PEMAX Reagent 50 monodoses (Std. Buffer)

What this product does

This product is comprised of a mix of PEMAX and GeniUL's Standard Buffer in a ready to use format.

This product has been designed in order to increase the efficiency of viability PCR procedures.

The yield of the vPCR reagents is highly influenced by the use of the appropriate reaction buffer. The combination of PEMAX and the correct vPCR buffer allow extending the implementation of viability PCR technology, detecting cells with intact cell membrane structure and also detecting cells with capability to actively maintain bacterial homeostasis, as a result of active metabolism.

After the sample treatment with this product the DNA/RNA from inactive/non functional cells or cells with damaged membrane will be neutralized. Therefore live cells, with active metabolism and undamaged cell membrane can be detected by different analytical procedures such as PCR, flow cytometry or fluorescence microscopy.

PEMAX Reagent 50 monodoses (Std. Buffer) is suitable for use in gram-negative and gram-positive bacteria. This product has been successfully tested with *Legionella* spp (i.e *L. pneumophila*), and *Pseudomonas* spp (i.e *P. aeruginosa*).

The combination of PEMAX Reagent and vPCR buffers is a technology developed by GeniUL.

<http://www.sciencedirect.com/science/article/pii/S0890850815000304>

Purity: >95%

Storage / Stability

On receipt reagent tubes store it in the lab fridge at 0-5°C. Protect from direct light. Upon receipt this product will be stable at least during 1 year.

Contents

PEMAX Reagent 50 monodoses (Std. Buffer), ready to use.

Additional Equipment Required

- GeniUL Photoactivation systems:

PhAST Blue (Cat.No. 9000700)

PAUL System (Cat.No. 90001400)

- Isothermal system for micro-tubes incubation:

Dark Box System (Cat.No. 90001200)

- D-Bag system for safe dye removal

D-Bag Holder (Cat.No. 900099645)

D-Bag: 4 units/100 of active charcoal pellets each. Funnel Ø45 included
(Cat.No.4900009500)

- v-DNA reagent, for DNA purification:

v-DNA reagent, for 100 samples (Cat.No. 4900014000)

v-DNA reagent, 50 u., ready to use monodoses (Cat.No. 4900014050)

v-DNA buffer for PCR inhibitors removal, (Cat.No. 4900014001)

Microbiological state

Sterile product

Applicability statement

The amount of reagent contained is sufficient to neutralize the DNA of at least $1 \cdot 10^6$ dead cells or cells with damaged membrane or inactive metabolism.

This product has been formulated according to complains the range of reagents concentration needed for 500 uL of sample. If is necessary adjust your sample to this volume add sterile and filtered distilled water.

Working with low reaction volumes will increase reagents concentrations; however some of them can become toxic for some microorganism.

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General Rules

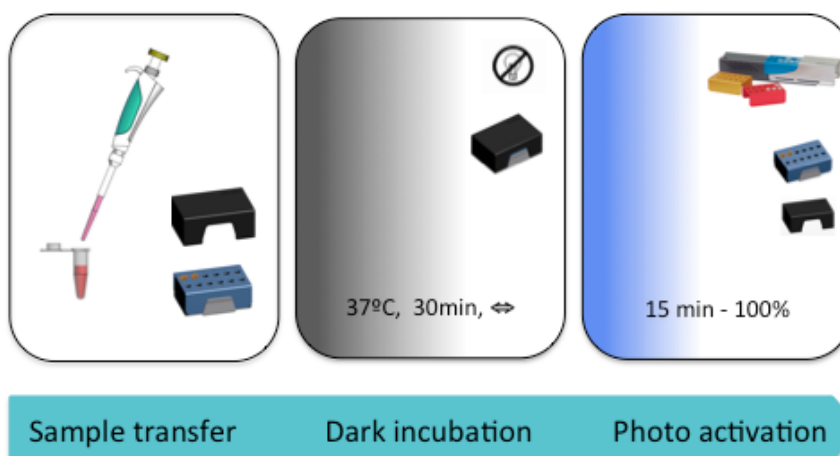
Please, read carefully MSDS of this product before use.

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.

Follow the general procedures of a molecular biology laboratory, especially those aimed at preventing cross-contamination. It is advisable to use micro-pipette tips with filter and the use of gloves and personal protection. The use of biological safety cabinets is recommended if you believe that your sample handling system can generate aerosols.

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

2. OPERATING PROCEDURE



Step	Action
1	The reagent should be at the bottom of reaction tube. Make a short spin
2	Homogenize the sample with the aid of a vortex or micro-pipette
3	Transfer 500 μ l of sample to each tube and mix using the micropipette.
4	Incubate on Darkness, during at least 20-30 min at 37°C
5	<i>Sample photoactivation (PhAST Blue or PAUL System, 100 % 15 min)</i>
6	Proceed with DNA purification using your routine procedures * (See our v-DNA reagent)

* Most of commercial DNA extraction kits starting with sample volumes of 200 μ l, if you need to work with the entire sample volume, an additional step of centrifugation and supernatant elimination must be performed.

The **v-DNA reagent** is a GeniUL technology that combines in a unique step, cells lysis and purification. It has been designed in order to fix all viability dyes and PCR inhibitors present in the sample.

The v-DNA reagent provides a fast and easy genomic DNA extraction procedure. No organic extractions, enzymatic digestions, or spin columns are needed, enabling very high DNA recovery from samples even in presence of PCR inhibitors. The DNA obtained is ready for use to perform PCR reactions or other molecular biology procedures. This product has been validated for viability PCR workflows.

3. FREQUENTLY ASKED QUESTIONS

For additional questions about our products read our Doc code 450000025.

4. 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 date of manufacture. 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, expense for telephone calls, shipping expense, 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.

5. OTHER INFORMATION

This product has been released for evaluation and research purposes

Some applications, in which Phenanthridinium can be used, may be covered by patents issued and applicable in the United States, Japan and certain other countries. The use of this product not contains any external license or right for their commercial use.

The use of this product is covered by Licenses, patents or patent pending request belonging to GeniUL. The customers that received this product can use it for research and evaluation purposes without infringing intellectual property rights

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.

6. 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 in 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

Instruments Útils de Laboratori GeniUL, S. L.

Edifici GAIA – Parc UPC

Rambla de Sant Nebridi, 22

08222 - Terrassa (Barcelona)

Spain

T. (+34) 93 619 03 12 / F. (+34) 93 619 74 91

geniul@geniul.com