1. PRODUCT DESCRIPTION

GENIUL_4900014050

Monodose v-DNA Reagent

What this product does

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 to use to perform PCR reactions or other molecular biology procedures.

Validated for viability PCR technology. This product is capable to retain the viability PCR dyes providing a DNA suspension free of PCR inhibitors.

v-DNA Reagent has been designed to obtain whole genomic DNA from bacteria and yeast suspensions from viability PCR sample treatments or from complex samples such as soil, stool, water (Effluent form waste water treatment plants, cooling tower…), and enrichment broth cultures (EB) from food products (Table 1).

Table 1: Recommended sample amount to be analyzed, depending on its nature.

Product type	Sample amount
vPCR treatment	500 µL
Soil	50 mg
Stool	25 mg
Waste Water	Concentrate from 50 ml
Drinking water	Concentrate from 1 L
Food (EB)	50-100 µL

Form
Liquid

Intended use
For Research Use Only

Contents
50 Monodose v-DNA Reagent, ready to use.

Additional materials or equipment required but not provided
Free DNAse ultrapure water or GenIUL v-DNA Buffer (Cat.No. 4900014001)

Note: For DNA long term storage or increasing the removal yield of PCR inhibitors is highly recommended the use of GenIUL's v-DNA Buffer

High speed Microcentrifugue (Up to 13,000 x g)

Heat blocks, or thermal mixers (Up to 90°C)

Vortex or tube mixers (Up to 1000 rpm)

Nuclease-free 1.5 mL Microtubes

Nucleasse-free pipette tips

Storage & shelf life
On receipt reagent tubes store it in the lab fridge at 0-5ºC. Protect from direct light. Upon receipt this product will be stable at least during 12 months.

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

Before starting:

- Set the heat block, or thermal mixer to 80ºC or 90°C
- Acclimatize monodose v-DNA Reagent tubes and v-DNA Buffer
- Centrifuge monodose v-DNA Reagent tubes at 1,000 x g for 10 sec. Some of the product may have been dislodged during shipment.

A. DNA extraction from bacterial cell suspensions

Step	Action
1	Centrifuge the sample at 13,000 x g for 5 minutes.
2	Remove most of the supernatant, but leaving at least 25-50 µL of end volume.
3	Transfer the sample to the monodose v-DNA Reagent tube.
4	Vortex at maximum speed (Minimum 1,000 rpm) for 5 minutes.
5	Incubate sample at 80ºC for 10 minutes in a shaking incubator (If it's not possible, mix the samples 2-3 times during the heat treatment).
6	Add 600 µL of v-DNA Buffer or water.

7	Vortex at maximum speed (Minimum 1,000 rpm) for 2 minutes.
8	Centrifuge at 10,000 x g for 2 minutes.
9	If you need to store the DNA, carefully transfer up to 300 µl of supernatant to a new microtube. Do not disturb the pellet.
10	Proceed directly to PCR or store DNA samples at -20ºC.

If you are working with conventional EB, from food microbiology, in most cases, are not necessary steps 1-2.

B. DNA extraction from yeast cells suspensions

Step	Action
1	Centrifuge the sample at 13,000 x g for 5 minutes.
2	Remove the supernatant, but leaving at least 25-50 µL of end volume.
3	Transfer the sample to the monodose v-DNA Reagent tube.
4	Vortex at maximum speed (minimum 1,000 rpm) for 5 minutes.
5	Incubate sample at 90ºC for 10 minutes in a shaking incubator (If it's not possible mix the samples 2-3 times during the heat treatment).
6	Incubate at -20ºC for 10 minutes.
7	Repeat steps 5 and 6.
8	Add 600 µL of v-DNA Buffer or water.
9	Vortex at maximum speed (minimum 1,000 rpm) for 2 minutes.
10	Centrifuge at 10,000 x g for 2 minutes.
11	If you need to store the DNA, carefully transfer up to 300 µl of supernatant to a new microcentrifuge tube. Do not disturb the pellet.
12	Proceed directly to PCR or store DNA samples at -20ºC.

C. DNA extraction from complex samples (Soil, Stool, Waste Water)

If your sample comes from a conventional vPCR workflow, probably it's clean enough for following the previous procedures (A or B). However if you need work with complex samples or remove high levels of PCR inhibitors, it's important to starting with a sample as clean as possible, at least from particulate matter.

Step	Action
1	Centrifuge the sample at 1,000 x g for 2 minutes.
2	Transfer the supernatant in a new 1,5 ml microtube.
3	Centrifuge the sample at 13,000 x g for 5 minutes.
4	Remove the supernatant, add 1mL of v-DNA Buffer and vortex.
7	Centrifuge the sample at 13,000 x g for 5 minutes.
8	Remove the supernatant but leaving at least 25-50 μL of end volume.
9	Add the pellet suspension into monodose v-DNA Reagent tube.
10	Vortex at maximum speed (minimum of 1000 rpm) for 5 minutes.
11	Incubate sample at 90ºC for 10 minutes in a shaking incubator.
12	Add 600 μL of v-DNA Buffer.
13	Vortex at maximum speed (minimum of 1000 rpm) for 2 minutes.
14	Centrifuge at 13,000 x g for 2 minutes.
15	If you need to store the DNA, carefully transfer up to 300 μl of supernatant to a new microtube. Do not disturb the pellet.
16	Proceed directly to PCR or store DNA samples at -20ºC.

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). 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.

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