PRODUCT INFORMATION

Rapid Yeast Genomic DNA Extraction Kit

Product information for BS8227:

Kit Contents

Components	BS8227, 50 Preps
Universal Digestion Buffer	25 ml
Buffer PY	12 ml
TE Buffer	10 ml
Snailase Reaction Buffer	75 ml
Snailase Storage Buffer*	5 ml
Snailase	600 mg
Protocol	1

Storage and Stability

Transportation at ambient temperature. Upon receipt. Store kit at 4 °C. Valid for 1 year.
* Dilute 600 mg Snailase in 5 mL Snailase Storage Buffer before use. This is a Snailase Working Stock. Store Snailase Working Stock at -20°C.

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Introduction

The kit is designed for rapid small-scale extraction of high quality genomic DNA from yeast. Yeast cell wall is digested by Snailase (or lyticase, zymolyase). Whole cell is lysed by a special buffer and DNA is then precipitated and washed by alcohol. Purified DNA can be used for many downstream applications such as PCR, restriction enzyme digestion, hybridization and other applications.

Features

1. Rapid and Simple.
2. High Quality of DNA. OD_{260}/OD_{280} of purified DNA is generally 1.8~1.9.
3. No Toxic Substance. The kit does not contain toxic reagents.
4. Easy to Scale Up.

Procedures

1. Collect 1.0 ml yeast culture (~1×10^7 cell) in a 1.5 ml Eppendorf tube and centrifuge at 10,000 x g (12,000 rpm) for 30 seconds. Discard supernatant completely.
2. Removal of yeast cell wall:
   a) Enzymatic Digestion: Add **600 µl** Snailase Reaction Buffer, **1.2 µl** mercaptoethanol (not supplied in the kit) and **50 µl** Snailase Working Stock (see instructions on page 1) per 20 mg wet weight yeast in a 1.5 ml tube. Incubate at 37 ºC for 3 hours. Invert the tube periodically. If lyticase is used, add 50 µl lyticase enzymatic storage buffer containing 300U or more lyticase per 20 mg wet weight yeast. Centrifuge at 3,000 x g (5,000 rpm) for 10 minutes. Discard the supernatant.

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3. Add 400 µl Universal Buffer Digestion, incubate at 65 °C for 1 hour.

Note: To obtain RNA-free DNA, add 20 µl RNase A solution (20 mg/ml, not supplied in the kit) to the tube, mix thoroughly and incubate at room temperature for 5 minutes after 65 °C incubation.

4. Add 200 µl Buffer PY, mix by inverting, and incubate at -20 °C for 5 minutes.

5. Centrifuge at 12,000 x *g* for 5 minutes at room temperature. Transfer the supernatant into a new 1.5 ml tube.

6. (Optional) Add 0.2 ml of chloroform to the supernatant, mix well by inverting 10 times. Centrifuge at 12,000 x *g* for 2 minutes. Carefully transfer the supernatant to a clean 1.5 ml tube.

7. Add equal volume of isopropanol (approx 0.3~0.5 ml) to the solution, mix well by inverting 5 times. Incubate at room temperature for 2~5 minutes. Centrifuge at 12,000 x *g* for 5 minutes, discard the supernatant carefully.

8. Add 1 ml of pre-cooled 75% ethanol to the tube, mix well by inverting 10 times. Centrifuge at 12,000 x *g* for 1 minute, discard the supernatant.

9. Repeat the Step 8.

10. Air-dry the pellet at room temperature with the lid open for 2~5 minutes.

11. Add 50~200 µl of TE buffer to dissolve DNA pellet. Keep at 4 °C for a couple hours until DNA pellet is completely dissolved. Purified DNA is ready for use. Or keep at -20 °C for long term storage.

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PRODUCTS ARE INTENDED FOR BASIC SCIENTIFIC RESEARCH ONLY!
NOT INTENDED FOR HUMAN OR ANIMAL USE!

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