GET™ Plant DNA Template

Genomic Efficient Technology for Plant DNA Template

(Cat. # 786-355, 786-1773)

INTRODUCTION

G-Biosciences GET™ Plant DNA Template is the kit belonging to our series of kits based on our Genomic Efficient Technology (GET) for purification of DNA templates.

GET™ is based on a highly efficient Genomic lysis buffer that liberates nucleic acid from cellular protein complexes, making nucleic acids free and available for purification in pure form. Free nucleic acids, DNA templates, are immobilized, in the presence of high concentration of chaotropic agents, on silica solid phase membrane. Following the capture of DNA template on the silica membrane, a series of washing steps removes interfering impurities. In the final step, pure DNA template is eluted in concentrated form with GET Elution Buffer (Fig.1).

The eluted DNA template is highly pure and does not require any further processing, making it suitable for a wide variety of applications including PCR, qPCR, library construction, southern blotting, SNP analysis and molecular diagnostic assays.

The kit is suitable for 50 preps (Cat. # 786-1773) or 100 preps (Cat. # 786-355) of 10-50mg plant tissue.

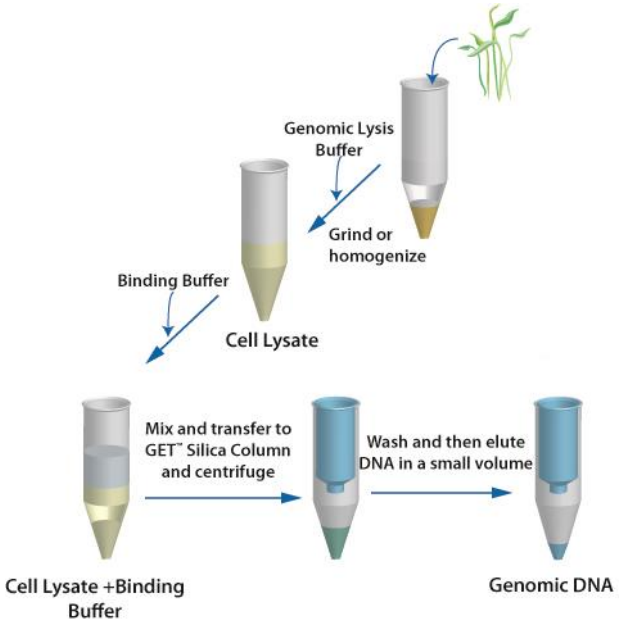


Fig:1

ITEM(S) SUPPLIED

Description	Cat. # 786-355 100 Preps	Cat. # 786-1773 50 Preps
Genomic Lysis Buffer	2 x 30 ml	30 ml
GET Binding Buffer	2 x 50 ml	50 ml
GET Silica Spin Columns	100	20
Longlife™ Proteinase K	0.5 ml	0.5 ml
GET Wash I	2 x 30ml	30ml
GET Wash II	2 x 20ml	20ml
GET Elution Buffer	10ml	10 ml

STORAGE CONDITION

The kit is shipped at ambient temperature. Upon arrival, store the kit components as recommended on the label. The kit components are stable for 1 year, if stored as recommended.

ADDITIONAL ITEMS REQUIRED

- Ethanol, >90% and 70%
- Nuclease free 1.5 ml microfuge tubes
- **Optional**: LongLife™ RNase (Cat. # 786-040)

PREPARATION BEFORE USE

1. Add 18 ml of molecular grade ethanol to 30 ml GET Wash I bottle and check the box on the bottle label to indicate ethanol has been added.
2. Add 80ml molecular grade ethanol to the GET Wash II bottle (20 ml) and check the box on the bottle label to indicate ethanol has been added.
3. Equilibrate GET Elution Buffer to 70°C.

PROTOCOL

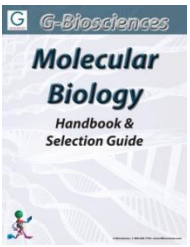
1. Transfer 10-50mg finely ground dried tissue, frozen tissue or fresh leave tissue to a microcentrifuge tube.
   NOTE: *Most plant tissues are best prepared by freezing in liquid nitrogen. Grinding samples in liquid nitrogen to a fine powder and quickly add to an appropriate volume of Genomic Lysis Buffer.*
2. Add 200µl Genomic Lysis Buffer.
3. If ground, vortex for 5 seconds; if unground, homogenize the sample with a microfuge pestle until a homogenous suspension is acquired, approximately 15-30 strokes.
4. Add 5µl Longlife™ Proteinase K suspension into the sample and incubate at 55°C-60°C for 1 hr.

NOTE: *Before use, Invert the Longlife™ Proteinase K tube 3-4 times to mix the enzyme suspension, then remove an aliquot for use.*

5. Centrifuge the sample tube for 5 minutes at 5000 x g and transfer the clear supernatant to a clean tube. Add 400 µl of GET Binding Buffer and vortex to mix.
6. Transfer the sample to GET Silica Spin Column, positioned in a microfuge tube.
7. Centrifuge the column at 12,000 x g for 1 minute at 25°C.
8. Discard the flow through.
9. Apply 0.6 ml Wash-I to the column and centrifuge at 12,000xg for 1 minute at 25°C. Discard the flow through.
10. Apply 0.6 ml GET Wash II to the column and centrifuge at 12,000xg for 1 minute at 25°C. Discard the flow through.
11. Repeat step 10 once.
12. Discard the flow through and replace the spin column on the microfuge tube. Spin at 14,000xg for 3 minutes to remove residual GET Wash II buffer.
13. Discard the collection tube and place the column on a clean nuclease-free 1.5ml microfuge tube.
14. Add 50µl prewarmed (70°C) GET Elution Buffer on top of the spin column matrix and incubate at room temperature for 15 minutes.
15. Centrifuge the spin column at 12,000xg for 1 minute to collect the eluted DNA. Store DNA at 4°C or -20°C for later use or treat it with RNase.
    ***NOTE**: Retain spin column until DNA recovery is checked. If recovery is poor, add 25-50µl prewarmed (50-60°C) GET Elution Buffer to the column and repeat steps 14-15. Combine with previous elution.*
16. ***Optional***: Removal of RNA. Invert the LongLife™ RNase vial 3-4 times to uniformly suspend the enzyme mix. Add 1µl LongLife™ RNase per 50 µl of eluted DNA. Incubate at room temperature for 15 minutes. Store the DNA at 4°C or -20°C until use.

RELATED PRODUCTS

Download our Molecular Biology Handbook.



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