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DATA SHEET

Version: 2
Revision date: 17/04/2023

1. Identification

Product name **HigherPurity™ Yeast Genomic DNA Isolation Kit**

Cat. No **AN0080 (50 reactions)**
Cat. No **AN0081 (100 reactions)**
Cat. No **AN0081-XL (250 reactions)**

2. Description

HigherPurity™ Yeast Genomic DNA Isolation Kit is a simple and rapid method for high-quality genomic DNA purification from yeast. The kit is based in DNA ability to bind silica in the presence of high concentrations of chaotropic salts. The Kit combines the power of spin column technology with the lyticase and alkaline-SDS lysis of yeast cells.The cell wall of yeast cells are rapidly and efficiently lysed enzymatically by lyticase. The sample DNA is then bound to the surface of a Spin Filter membrane and washed and the bound DNA is then desorbed from the surface of the Minispin column. The inhibitors of the downstream PCR will be removed by utilizing the DNA binding column and the buffers system in this kit.

3. Kit Components

Item	AN0080	AN0081	AN0081-XL
Buffer BLL	30 ml	60 ml	150ml
Buffer BLY	15 ml	30 ml	75 ml
Beads Tube	50	100	250
Wash Buffer 1 * (WB1)	22 ml	44 ml	110 ml
Wash Buffer 2 * (WB2)	10 ml	20 ml	50 ml
Elution Buffer (EB)	15 ml	30 ml	50 ml
Proteinase K **	20 mg	2x20 mg	5x20 mg
Lyticase solution	5x500 µl	10x500 µl	25x500 µl
MiniSpin columns	50	100	250
Collection tube (2mL)	100	200	500

Note

*Add the volume ethanol (96%-100%) specified [Not included] to WB1 and WB2 Buffer prior to initial use (see bottle label for volume). After ethanol has been added, mark the bottle to indicate that this step has been completed.

Dissolve Proteinase K in water to obtain a 20 mg/mL stock solution. **The Proteinase K solution can be stored for several days at 2–8 ˚C. For longer-term storage, the unused portion of the solution may be stored in aliquots at –20 ˚C until needed.

4. Features

- **Safe:** no phenol-chloroform extraction.
- **Efficient.**
- **Ready to use** genomic DNA, in all molecular biology applications.

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5. Storage specifications

The kit is shipped at ambient temperature. Upon arrival, store Proteinase K and Lyticase solution at -20°C. All other kit components can be stored at room temperature.

Important! BLL Buffer containing 14 mM of ß-mercaptoethanol is hazardous to human health. Please wear gloves when using this product. Avoid all skin contact with kit reagents. In case of contact, wash thoroughly with water.

6. Applications

High molecular weight genomic DNA purified with the kit is suitable for direct use in all common molecular biology applications: PCR, cloning, DNA sequencing, Southern blot analysis, etc.

7. Further information

Product Use Limitations	This product is developed, designed, and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.
Safety Information	When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDS). These are available online in convenient and compact PDF format at www.canvaxbio.com where you can find, view, and print the MSDS for each CANVAX kit.

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DETAILED PROTOCOL

1. Transfer yeast culture (maximum 5 x 107 cells) to 1.5 ml microcentrifuge tube (not provided) and centrifuge 10 min at 5000 x g. Discard supernatant.
💡 Harvest yeast during early log phase of growth.

2. Resuspend the cell pellet in **600 µl** of **Buffer BLL.**

3. Add **50µl** of **lyticase solution** and incubate at 30 ˚C for 30 min.

4. [**Optional step**] If RNA-free genomic DNA is required, add 8 µl of 50 mg/ml RNase A (not provided), mix by shaking vigorously and incubate for 5 minutes at room temperature.

5. Centrifuge at 5000 x g for 5 min. Remove supernatant by pipetting.

6. Add **200µl** of **Buffer BLY** and continue to homogenize the sample by pipetting.

7. Transfer the sample mixture to a **beads tube**. Mix well by vortexing vigorously for 5 minutes.

8. Add **15µl** of **Proteinase K** (20mg/ml), mix by shaking vigorously, and incubate at 56°C for 30 minutes. During incubation, invert the tube regularly.

9. Centrifuge 1 min at 5000 x g and transfer supernatant to a new 1.5 ml microcentrifuge tube. (not provided).

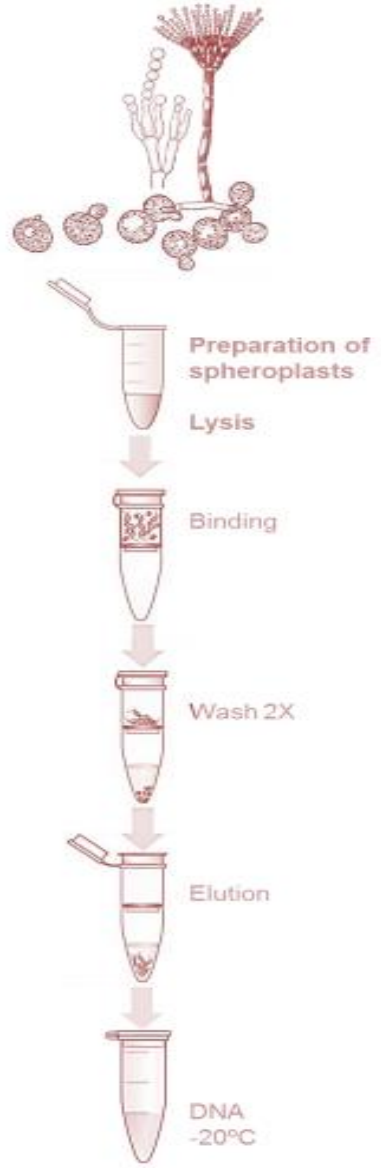
10. Add **200 µl Absolute Ethanol** (not provided) and mix immediately and thoroughly by vortexing or pipetting to yield a homogeneous solution. In case precipitate appears, break it up by pipetting.

11. Place the **MiniSpin column** in a **collection tube** and transfer the sample mixture (including and precipitate if present) to the column.

12. Centrifuge at 6000 x g for 2 minutes. Discard the collection tube containing the flow-through and place the **MiniSpin column** in a new **collection tube.**

13. Add **500µl** of **Buffer WB1** and centrifuge at 16000 x g for 30 seconds. Discard the flow-through and place the **MiniSpin column** back in the **collection tube**.

14. Add **750µl** of **Buffer WB2** and centrifuge at 16000 x g for 1 minute.



15. Discard the flow-through and place the **MiniSpin column** back in the **collection tube** and centrifuge for another 3 minutes at 16000 x g to dry the matrix of the column.

16. Transfer the spin column to a new 1.5-ml microcentrifuge tube and pipet **100µl** pre-heated **Elution Buffer** (5 minutes at 65°C) directly to the center of the spin column without touching the membrane. Incubate at room temperature for 5 minutes.

17. Centrifuge for 1 minute at 16000 x g to elute purified genomic DNA. Discard the spin column and use DNA immediately or store at -20°C.