

## Fungi/Yeast Genomic DNA Isolation Kit

Norgen's Fungi/Yeast Genomic DNA Isolation Kit is designed for the rapid preparation of genomic DNA from viable yeast cells, fungal spores or mycelium and Gram-positive bacteria. Genomic DNA is efficiently extracted from the cells by a combination of heat treatment, detergents and the use of provided Bead Tubes. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. The purified genomic DNA is fully digestible with all restriction enzymes tested, and is completely compatible with downstream applications such as PCR, Restriction Fragment Length Polymorphism (RFLP) and Amplified Fragment Length Polymorphism (AFLP). Typical yields of genomic DNA will vary depending on the cell density of the yeast or fungal culture and species. The option of an additional lyticase treatment is also provided in order to allow for improved DNA yields for certain fungal and yeast species.

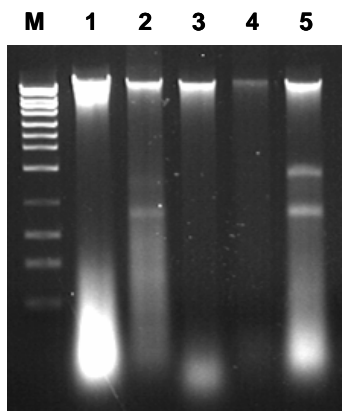


Kit Specifications			
Column Binding Capacity	50 µg	Average Yield*	
Maximum Column Loading Volume	650 µL	<i>Pichia sp.</i> (yeast)	25 µg
Time to Complete 10 Purifications	45 minutes	<i>Botrytis cinerea</i>	32 µg
Maximum Amount of Starting Material:		<i>Fusarium sp.</i>	42 µg
Fungi (wet weight)	50 mg	<i>Aspergillus niger</i>	26 µg
Yeast or Bacteria Culture	1 x 10 <sup>8</sup> cfu's	<i>Penicillium sp.</i>	40 µg
	(~0.5 - 1 mL)	<i>Alternaria tenuissima</i>	30 µg

### Fungi/Yeast Genomic DNA Isolation Kit Benefits

Isolate DNA from a wide range of samples	Genomic DNA can be isolated from viable yeast cells, fungal spores or mycelium and Gram-positive bacteria.
No phenol :chloroform extractions	DNA is isolated without the use of harmful chemicals such as phenol or chloroform.
Rapid and simple processing	Rapid spin-column format allows for the processing of multiple samples in 45 minutes.
Isolate high quality DNA	Purified DNA is of the highest quality and can be used in a number of downstream applications including PCR, Restriction Fragment Length Polymorphism (RFLP) and Amplified Fragment Length Polymorphism (AFLP).

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**Figure 1. Isolate DNA from a Wide Range of Samples**

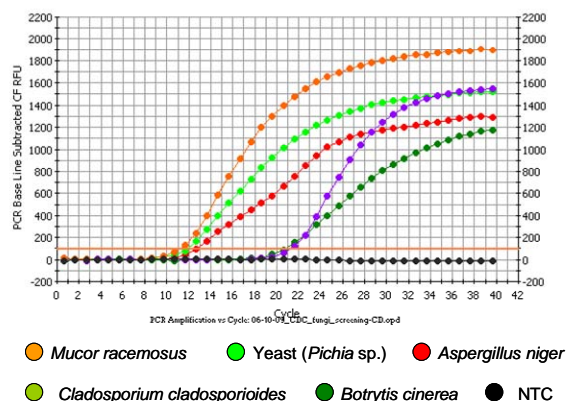
DNA was isolated from 50 mg (wet weight) samples of *Pichia sp.* (Lane 1), *Aspergillus niger* (Lane 2), *Cladosporium cladosporioides* (Lane 3), *Botrytis cinerea* (Lane 4) and *Mucor racemosus* (Lane 5) using Norgen's Fungi/Yeast Genomic DNA Isolation Kit, and 5  $\mu$ L aliquots were run on a 1X TAE 1% agarose gel. As it can be seen, high quality DNA was isolated in all cases. The M Lane contains Norgen's HighRanger 1kb DNA Ladder.

### Fungi/Yeast Genomic DNA Isolation Kit Contents

1. Lysis Solution
2. Resuspension Solution
3. Wash Solution
4. Elution Buffer
5. Bead Tubes
6. Mini Spin Columns
7. Collection tubes
8. Elution tubes
9. Product Insert

### Shipping Conditions

The Fungi/Yeast DNA Isolation Kit is shipped at room temperature.



**Figure 2. Purified DNA Can be Amplified in a qPCR Reaction**

DNA was isolated from 50 mg samples of *Pichia sp.*, *Aspergillus niger*, *Cladosporium cladosporioides*, *Botrytis cinerea* and *Mucor racemosus* using Norgen's Fungi/Yeast Genomic DNA Isolation Kit, and 2  $\mu$ L of the DNA was used in a qPCR (SYBR Green) reaction with specific fungal and yeast primers. The qPCR was successful in amplifying and detecting all the yeast and fungal DNA, indicating that the DNA is of a high quality and can be used in sensitive downstream applications.

### Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- $\beta$ -mercaptoethanol
- 96 - 100% ethanol
- 70% ethanol
- RNase A (optional)
- Lyticase (optional)

### Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. These reagents should remain stable for at least 1 year in their unopened containers.

Cat #	Description	Quantity
27300	Fungi/Yeast DNA Isolation Kit	50 samples