**HiPurA® 96 Yeast Genomic DNA Purification Kit**

**Kit Contents**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Reagents provided</th>
<th>MB555 1X96 Preps</th>
<th>4X96 Preps</th>
<th>12X96 Preps</th>
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</thead>
<tbody>
<tr>
<td>DS0015</td>
<td>Lysis Solution (AL)</td>
<td>27 ml</td>
<td>108 ml</td>
<td>324 ml</td>
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<tr>
<td>DS0010</td>
<td>Lysis Solution (C1)</td>
<td>29 ml</td>
<td>116 ml</td>
<td>348 ml</td>
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<tr>
<td>DS0031</td>
<td>Prewash Solution (PWB)</td>
<td>58 ml</td>
<td>232 ml</td>
<td>2 x 348 ml</td>
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<tr>
<td>DS0012</td>
<td>Wash Solution Concentrate (WS)</td>
<td>12 ml</td>
<td>48 ml</td>
<td>144 ml</td>
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<tr>
<td>DS0040</td>
<td>Elution Buffer (ET) [10 mM Tris-Cl, pH 8.5]</td>
<td>24 ml</td>
<td>96 ml</td>
<td>288 ml</td>
</tr>
<tr>
<td>MB086</td>
<td>Proteinase K</td>
<td>60 mg</td>
<td>240 mg</td>
<td>720 mg</td>
</tr>
<tr>
<td>DS0003</td>
<td>RNase A Solution (20 mg/ml)</td>
<td>3 ml</td>
<td>12 ml</td>
<td>36 ml</td>
</tr>
<tr>
<td>LWB-16-96</td>
<td>HiPurA® 96-well Block (1.6 ml)</td>
<td>2 nos</td>
<td>8 nos</td>
<td>24 nos</td>
</tr>
<tr>
<td>DBPL-96-01</td>
<td>HiPurA® 96-well DNA Plate</td>
<td>1 no</td>
<td>4 nos</td>
<td>12 nos</td>
</tr>
<tr>
<td>PR11</td>
<td>HiPurA® Silicon Pad for sealing</td>
<td>1 no</td>
<td>4 nos</td>
<td>12 nos</td>
</tr>
<tr>
<td>DVB-96</td>
<td>HiPurA® 96-well V-plate</td>
<td>1 no</td>
<td>4 nos</td>
<td>12 nos</td>
</tr>
<tr>
<td>LWB-96</td>
<td>HiPurA® 96-well Block (2.2 ml)</td>
<td>1 no</td>
<td>4 nos</td>
<td>12 nos</td>
</tr>
</tbody>
</table>

**Intended Use**

Recommended for isolation of DNA from yeast cultures

**Introduction**

HiPurA® Genomic DNA Purification Kit provides a fast and easy method for purification of total DNA for reliable applications in PCR, Southern blotting technique etc. HiMedia’s 96-well format allows rapid processing of multiple samples. The DNA obtained is compatible with downstream applications such as restriction enzyme digestion, PCR amplification and Southern blotting.

**HiPurA® 96 Yeast Genomic DNA Purification Kit**

This kit simplifies isolation of DNA from yeast by a simple procedure. Yeast cells (*Saccharomyces cerevisiae, Candida albicans*) are grown in log phase and spheroplasts are subsequently prepared. Following lysis, the DNA is bound to the silica-gel membrane of the HiPurA® 96-well DNA plate (DBPL-96-01). The rapid wash step remove trace amount of salt and protein contaminants resulting in the elution of pure DNA in the Elution Buffer provided with the kit.

**HiPurA® 96-well DNA Plate (DBPL-96-01)**

HiPurA® 96-well DNA Plate is based on the advanced silica binding principle presented in a centrifugation and vacuum format. The system efficiently couples the reversible nucleic acid-binding properties of the advanced silica membrane to yield high quantity of DNA. It facilitates the binding, washing and elution steps thus enabling multiple samples to be processed simultaneously. It eliminates the need for alcohol precipitation, expensive resins...
and harmful organic compounds such as phenol and chloroform, otherwise employed in traditional DNA isolation techniques.

DNA binds specifically to the advanced silica-gel membrane while contaminants pass through. PCR inhibitors such as divalent cations and proteins are completely removed during wash steps, leaving pure nucleic acids to be eluted in the buffer provided with the kit.

**Elution**

The yield of genomic DNA depends on the sample type and the number of cells in the sample. Elution with 150 µl of Elution Buffer (ET) will provide sufficient DNA to carry out multiple amplification reaction. Elution with volume less than 150 µl will increase the final DNA concentration, but will reduce the overall DNA yield. The eluted DNA ranges in size upto 20-30 kb, and is suitable for direct use in PCR, restriction digestion and Southern blotting applications.

**Concentration, yield and purity of DNA**

Spectrophotometric analysis and agarose gel electrophoresis will reveal the concentration and the purity of the genomic DNA. Use Elution Buffer (ET) to dilute samples and to calibrate the spectrophotometer, measure the absorbance at 260 nm, 280 nm and 320 nm using a quartz microcuvette. Absorbance readings at 260 nm should fall between 0.1 and 1.0. The 320 nm absorbance is used to correct for background absorbance. An absorbance of 1.0 at 260 nm corresponds to approximately 50 µg/ml of DNA. The A_{260}–A_{320} / A_{280}–A_{320} ratio should be 1.6 - 1.9. Purity is determined by calculating the ratio of absorbance at 260 nm to absorbance at 280 nm. DNA purified by HiPurA® 96 Yeast Genomic DNA Purification Kit is free of protein and other contaminants that can inhibit PCR or other enzymatic reactions.

Concentration of DNA sample (µg/ml) = 50 x A_{260} x dilution factor.

**Materials needed but not provided**

- 30°C water bath or heating block
- 56°C water bath or heating block
- Tabletop Centrifuge with swinging bucket rotor and plate carriers, capable of attaining atleast 2,250 X g (≈3,700 rpm)
- Ethanol (96-100%)
- Zymolyase or Lyticase (Product Code: MB099)
- YPD broth for *Saccharomyces cerevisiae* (Product code: M1363) or Candida Medium for *Candida* species (Product Code: M104) can be used
- Sorbitol (Product Code: MB066) Buffer (Refer 'General Preparation Instructions' below)
- Molecular Biology Grade Water (Product code: ML024)
- Multichannel pipettes and tips
- Vacuum oven at 70°C or oven preheated to 70°C

**Storage**

Store the HiPurA® 96 Yeast Genomic DNA Purification Kit between 15-25°C except certain components as specified on each labels. Under recommended condition kit is stable for 1 year.

**General Preparation Instructions**

1. Preheat a water bath or heating block to 30°C.
2. Preheat a water bath or heating block to 56°C.
3. Preset the centrifuge at 4°C (for initial steps of the protocol)
4. **Thoroughly mix reagents**  
   Examine the reagents for precipitation. If any kit reagent forms a precipitate (other than enzymes), warm at 55-65°C until the precipitate dissolves and allow cooling to room temperature (15-25°C) before use.

5. **Dilute Wash Solution Concentrate (WS) (DS0012) as follows:**

<table>
<thead>
<tr>
<th>Number of Preps</th>
<th>Wash Solution Concentrate (WS)</th>
<th>Ethanol (96-100 %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1X96</td>
<td>12 ml</td>
<td>48 ml</td>
</tr>
<tr>
<td>4X96</td>
<td>48 ml</td>
<td>192 ml</td>
</tr>
<tr>
<td>12X96</td>
<td>144 ml</td>
<td>576 ml</td>
</tr>
</tbody>
</table>

   **NOTE:** User should carry out dilution of Wash Solution Concentrate (WS) in a separate container, as it is not provided with the kit.

6. **Reconstitute Proteinase K (MB086)**  
The HiPurA® 96 Yeast Genomic DNA Purification Kit contains Proteinase K. Intensive research has shown that it is the optimal enzyme for use with the Lysis Solution provided in the kit. It is completely free of DNase and RNase activity. Proteinase K is the enzyme of choice for use with an SDS containing Lysis Solution. The specific activity of Proteinase K is 33.5 units/mg dry weight.

   Resuspend the Proteinase K (MB086) powder in Molecular Biology Grade Water (ML024) to obtain a 20 mg/ml stock solution.

<table>
<thead>
<tr>
<th>Number of Preps</th>
<th>Proteinase K</th>
<th>Molecular Biology Grade Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>1X96</td>
<td>60 mg</td>
<td>3 ml</td>
</tr>
<tr>
<td>4X96</td>
<td>240 mg</td>
<td>12 ml</td>
</tr>
<tr>
<td>12X96</td>
<td>720 mg</td>
<td>36 ml</td>
</tr>
</tbody>
</table>

   The product as supplied is stable at room temperature (15-25°C); upon reconstitution store at -20°C as mentioned in storage instructions.

   **NOTE:** The Proteinase K solution must be added directly to each sample preparation every time. Do not combine the Proteinase K and Lysis Solution for storage.

7. **Prepare Sorbitol buffer as follows:**
   1M sorbitol
   100 mM EDTA
   14 mM ß-mercaptoethanol

   **RNase A enzyme treatment**
   RNase A is a type of RNase that is commonly used in research. RNase A (e.g., bovine pancreatic ribonuclease A) is one of the sturdiest enzymes in common laboratory usage. It cleaves 3’end of unpaired C and U residues.

   **Unit Definition for RNase A**
   One unit of the enzyme causes an increase in absorbance of 1.0 at 260 nm when yeast RNA is hydrolyzed at 37°C and pH 5.0. Fifty units are approximately equivalent to 1 Kunitz unit. It is completely free of DNases and proteases. The specific activity is 90 U/mg.

   The product as supplied is stable at room temperature (15-25°C).
Centrifugation

All centrifugation steps are carried out in conventional laboratory centrifuge e.g. Beckman CS-6KR, Heraeus Varifuge 3.0R, or Sigma 6k10 with swinging bucket rotor. The 96-well accessories provided with the kit are compatible with almost all laboratory centrifuges and rotors. All centrifugation steps are are given in g, the correct rpm can be calculated using the formula:

\[
RPM = \sqrt{\frac{RCF}{1.118 \times 10^{-5}}} r
\]

where \( RCF \) = required gravitational acceleration (relative centrifugal force in units of g); \( r \) = radius of the rotor in cm; and \( RPM \) = the number of revolutions per minute required to achieve the necessary g-force.

General Note:

1. If less than 96 samples are processed at a time, seal the unused wells properly with the provided HiPurA® Silicon Pad for sealing (PR11).
2. The HiPurA® Silicon Pad for sealing (PR11) used in the protocol should not be discarded. It can be reused after wiping with ethanol and washing properly.
3. Vacuum as well as centrifugation protocol can be performed for HiPurA® 96 Yeast Genomic DNA Purification Kit. For a vacuum protocol, negative pressure of -30 mm Hg is required to achieve optimum results.

Specimen Collection and Handling

Collect overnight culture from sterile flask with the help of micropipette. Store the remaining culture at 2-8°C for short term use.

Types of Specimen: Yeast culture

Procedure

Vacuum based protocol:

1. Grow yeast culture *Saccharomyces cerevisiae* or *Candida spp.* in YPD medium (Product Code: M1363). Harvest cells, maximum up to 1 X 10^8 or up to 1.5 ml of overnight grown yeast culture in the HiPurA® 96-well Block (2.2 ml) (LWB-96) by centrifugation at 1500 rpm for 10 minutes at 4°C in a centrifuge with a rotor and carriers/adaptors for 96-well microplates. The block should be covered with HiPurA® Silicon Pad for sealing (PR11) during centrifugation. Remove the medium by gently inverting the block onto a waste container.

   NOTE: Tap the inverted block gently onto an absorbent paper towel stack to drain out the remaining droplets of liquid. Ensure that the pellet is firm and does not get disturbed during tapping.

2. Resuspend cells
   Resuspend each pellet in 600 µl of Sorbitol Buffer (Refer General Preparation Instructions). Add 200U of zymolyase or lyticase, cover the block with HiPurA® Silicon Pad for sealing (PR11) and incubate at 30°C for 30 minutes.

3. Pellet the spheroplasts by centrifuging the block (2.2 ml) for 10 minutes at 2250 x g (3,700 rpm) at 4°C. Remove the supernatant by gently inverting the block onto a waste container.
NOTE: Tap the inverted block gently onto an absorbent paper towel stack to drain out the remaining droplets of liquid. Ensure that the pellet is firm and does not get disturbed during the tapping.

4. **Lyse cells**
   Remove the silicon pad from the block and resuspend the spheroplasts in 180 µl of Buffer AL (DS0015).

5. **Add 25 µl of the Proteinase K solution (20 mg/ml) (MB086) (Refer General Preparation Instructions) to each well of the 96-well block. Mix and incubate for 30 minutes at 56°C. If residual RNA is not a concern, continue with step 7.**

   **Optional RNase A treatment**
   If RNA-free genomic DNA is required, add 20 µl of RNase A Solution (DS0003), mix and incubate for 5 minutes at room temperature (15-25°C), then continue with step 7.

6. **Lyse cells**
   Add 200 µl of Lysis Solution (C1) (DS0010) to each well of the 2.2 ml block. Seal the block using the HiPurA® Silicon Pad provided with the kit (PR11). Vortex thoroughly (for about 15 seconds) and incubate at 56°C for 10 minutes.

   **NOTE:** A homogeneous mixture is essential for efficient lysis.

7. **Prepare for binding**
   Add 200 µl of ethanol (95-100%) to each well of HiPurA® 96-well Block (2.2 ml) (LWB-96) and mix thoroughly by vortexing for few seconds.

   **NOTE:** A homogenous mixture is essential. A white precipitate may form on addition of ethanol. It is essential to apply all of the precipitate to the HiPurA® 96-well DNA Plate (DBPL-96-01). This precipitate does not interfere with the DNA isolation procedure or with any subsequent applications. Do not use alcohols other than ethanol because this may result in reduced yields.

8. **Load lysate in HiPurA® 96-well DNA Plate**
   Connect the vacuum manifold to the vacuum source. Remove the manifold top and place a HiPurA® 96-well Block (1.6 ml) (LWB-16-96) into the manifold base (to collect the flow-through liquid). Replace the manifold top and place the HiPurA® 96-well DNA Plate (DBPL-96-01) onto the 1.6 ml block. Carefully transfer the lysate from 2.2 ml block and transfer it to the corresponding wells of the HiPurA® 96-well DNA Plate (DBPL-96-01). Place the HiPurA® Silicon Pad to seal (PR11) the plate.

   **NOTE:** Any Vacuum Manifold, which can accommodate 96-well plates can be used. A negative pressure of -30 inches Hg is required. We recommend the use of a vacuum regulator to adjust the negative pressure. -30 inches Hg is equivalent to approximately 1000 mbar and 15 psi.

9. Turn on the vacuum source and adjust it to -30 inches Hg. Continue to draw vacuum (approximately 10 minutes) through the plates until no liquid remains in any of the wells of the HiPurA® 96-well DNA Plate.

10. Turn off the vacuum source and release the vacuum from inside of the vacuum manifold using the vacuum regulator. Remove the HiPurA® 96-well DNA Plate (DBPL-96-01) from the manifold and temporarily set it aside on a piece of absorbent towel or plastic wrap.

    **NOTE:** Discard the flow-through liquid from HiPurA® 96-well Block (1.6 ml) (LWB-16-96) and reuse it.
11. **Prewash**
   Add 500 µl of Prewash Solution (PWB) (DS0031) to each well of HiPurA® 96-well DNA Plate (DBPL-96-01) and place the HiPurA® Silicon Pad (PR11) to seal the plate. Turn on the vacuum source and adjust it to -30 inches Hg. Continue to draw vacuum until no Prewash Solution is present in any of the wells. All the flow-through will be collected in the bottom collection tube. Discard the flow-through liquid.

12. **Wash**
   *(Prepare Wash Solution as indicated in General Preparation Instructions)*
   Add 500 µl of diluted Wash Solution (WS) (DS0012) to each well of HiPurA® 96-well DNA Plate (DBPL-96-01) and place the silicon pad to seal the plate. Apply vacuum until no Wash Solution is present in any of the wells.

13. Discard the flow-through liquid and apply vacuum at a maximum of -30 inches Hg for 10 minutes to remove the traces of ethanol present in the Wash Solution.

14. Turn off the vacuum source. Remove the HiPurA® 96-well DNA Plate (DBPL-96-01) from the vacuum manifold and vigorously tap the plate approximately 6-8 times on several layers of absorbent toweling. Be careful not to damage the drip directors on the underside of the plate.

   **NOTE:** Lint-free absorbent toweling is recommended to avoid the release of tiny fibres, which could contaminate the DNA and interfere with subsequent downstream applications.

15. Incubate HiPurA® 96-well DNA Plate (DBPL-96-01) open without the HiPurA® Silicon Pad for 15 minutes at 70°C in a vacuum oven to evaporate residual ethanol.

   **NOTE:** If vacuum oven is not available then connect the vacuum manifold to the oven pre-heated at 70°C through the port provided on the oven.

16. **DNA Elution**
   Remove the HiPurA® 96-well Block (1.6 ml) (LWB-16-96), which was used as a collection tray, from the vacuum manifold base and replace it with a new HiPurA® 96-well V-plate (DVB-96) for elution. Reassemble the manifold top and place the HiPurA® 96-well DNA Plate (DBPL-96-01) on the HiPurA® 96-well V-plate. Add 150 µl of Elution Buffer (ET) (DS0040) to the corresponding wells of HiPurA® 96-well DNA Plate (DBPL-96-01) and incubate at room temperature for 5 minutes. Turn on the vacuum source and allow the vacuum (-30 Hg pressure) to continue for 10 minutes.

17. Turn off the vacuum source and use the vacuum regulator to gradually release the vacuum from the manifold. Disassemble the manifold and remove the HiPurA® 96-well V-plate (DVB-96), which contains eluted DNA samples.

**Centrifugation based protocol:**

1. Grow yeast culture *Saccharomyces cerevisiae or Candida spp.* in YPD medium (Product Code: M1363). Harvest cells, maximum up to 1 X 10^8 or up to 1.5ml of overnight grown yeast culture in the HiPurA® 96-well Block (2.2 ml) (LWB-96) by centrifugation at 1500 rpm for 10 minutes at 4°C in a centrifuge with a rotor and carriers/adaptors for 96-well microplates. The block should be covered with HiPurA® Silicon Pad for sealing (PR11) during centrifugation. Remove the medium by gently inverting the block onto a waste container.
NOTE: Tap the inverted block gently onto an absorbent paper towel stack to drain out the remaining droplets of liquid. Ensure that the pellet is firm and does not get disturbed during the tapping.

2. Resuspend cells
Resuspend each pellet in 600 µl of Sorbitol Buffer (Refer General Preparation Instructions). Add 200U of zymolyase or lyticase, cover the block with HiPurA® Silicon Pad for sealing (PR11) and incubate at 30°C for 30 minutes.

3. Pellet the spheroplasts by centrifuging the block (2.2 ml) for 10 minutes at 2250 x g (3,700 rpm) at 4°C. Remove the supernatant by gently inverting the block onto a waste container.

NOTE: Tap the inverted block gently onto an absorbent paper towel stack to drain out the remaining droplets of liquid. Ensure that the pellet is firm and does not get disturbed during tapping.

4. Lyse cells
Remove the silicon pad from the block and resuspend the spheroplasts in 180 µl of Buffer AL (DS0015).

5. Add 25 µl of the Proteinase K solution (20 mg/ml) (MB086) (Refer General Preparation Instructions) to each well of the 96-well block. Mix and incubate for 30 minutes at 56°C. If residual RNA is not a concern, continue with step 7.

Optional RNase A treatment
If RNA-free genomic DNA is required, add 20 µl of RNase A Solution (DS0003), mix and incubate for 5 minutes at room temperature (15-25°C), then continue with step 7.

6. Lyse cells
Add 200 µl of Lysis Solution (C1) (DS0010) to each well of the 2.2 ml block. Seal the block using the HiPurA® Silicon Pad provided with the kit (PR11). Vortex thoroughly (for about 15 seconds) and incubate at 56°C for 10 minutes.

NOTE: A homogeneous mixture is essential for efficient lysis.

7. Prepare for binding
Add 200 µl of ethanol (95-100%) to each well of HiPurA® 96-well Block (2.2 ml) (LWB-96) and mix thoroughly by vortexing for few seconds.

NOTE: A homogenous mixture is essential. A white precipitate may form on addition of ethanol. It is essential to apply all of the precipitate to the HiPurA® 96-well DNA Plate (DBPL-96-01). This precipitate does not interfere with the DNA isolation procedure or with any subsequent applications. Do not use alcohols other than ethanol because this may result in reduced yields.

8. Load lysate in HiPurA® 96-well DNA Plate
Transfer the lysate obtained from the above step onto HiPurA® 96-well DNA Plate (DBPL-96-01) [placed on HiPurA® 96-well Block (1.6 ml) (LWB-16-96)]. Place the HiPurA® Silicon Pad (PR11) to seal the plate and centrifugate at 2250 x g (3,700 rpm) for 5 minutes. Discard the flow-through liquid and place the HiPurA® 96-well DNA Plate (DBPL-96-01) in the same 1.6 ml block.
9. **Prewash**  
Add 500 µl of Prewash Solution (PWB) (DS0031) to the HiPurA® 96-well DNA Plate (DBPL-96-01), seal the plate with silicon pad and centrifuge at maximum speed for 5 minutes. Discard the flow-through liquid and re-use the same 1.6 ml block.

10. **Wash**  
(Prepare Wash Solution as indicated in General Preparation Instructions)  
Add 500 µl of diluted Wash Solution (WS) (DS0012) to the HiPurA® 96-well DNA Plate (DBPL-96-01), seal the plate with silicon pad and centrifuge for 3 minutes at maximum speed. Discard the flow-through and place the HiPurA® 96-well DNA Plate (DBPL-96-01) to the same 1.6 ml block. Centrifuge again at same speed for the additional 10 minutes to dry the plate.

11. Incubate HiPurA® 96-well DNA Plate (DBPL-96-01) open without the HiPurA® Silicon Pad for 15 minutes at 70°C in a vacuum oven to evaporate any residual ethanol.

**NOTE:** If vacuum oven is not available then connect the vacuum manifold to the oven pre-heated at 70°C through the port provided on the oven.

12. **DNA Elution**  
Remove the HiPurA® 96-well Block (1.6 ml)(LWB-16-96) which was used as collection tray and replace it with a new HiPurA® 96-well V-plate (DVB-96) for elution. Place the HiPurA® 96-well DNA Plate (DBPL-96-01) on the HiPurA® 96-well V-plate. Add 150 µl of Elution Buffer (ET) (DS0040) to the corresponding wells of HiPurA® 96-well DNA Plate (DBPL-96-01) and incubate at room temperature for 5 minutes. Centrifuge at maximum speed for 5 minutes to elute the DNA.

**NOTE:** Elution with volumes less than 150 µl increases the final DNA concentration in the eluate significantly, but slightly reduces the overall DNA yield. Storing DNA in water can cause acid hydrolysis.

**Storage of the eluate with purified DNA:** The eluate contains pure genomic DNA. For short-term storage (24-48 hrs) of the DNA, 2-8°C is recommended. For long-term storage, -20°C or lower temperature (-80°C) is recommended. Avoid repeated freezing and thawing of the sample which may cause denaturing of DNA. The Elution Buffer will help to stabilize the DNA at these temperatures.

**Warning and Precautions**  
Not for Medicinal Use. Read the procedure carefully before beginning the protocol. Wear protective gloves/protective clothing/eye protection/face protection. Follow good laboratory practices while handling samples. Standard precautions should be followed as per established guidelines. Safety guidelines may be referred in safety data sheets of the product.

**Limitations**  
1. The yield of DNA depends upon the type and the volume of starting material used.

**Performance and Evaluation**  
Each lot of HiMedia’s HiPurA® Yeast Genomic DNA Purification Kit is tested against predetermined specifications to ensure consistent product quality.

**Quality Control**

<table>
<thead>
<tr>
<th>Type of Sample</th>
<th>DNA Purity</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. cerevisae</td>
<td>1.6-1.9</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Problem</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>1.</td>
<td>HiPurA® 96-well DNA Plate is clogged</td>
</tr>
<tr>
<td>2.</td>
<td>Lysate appears to be gelatinous prior to loading onto the plate</td>
</tr>
<tr>
<td>3.</td>
<td>Poor / Lower yield of genomic DNA</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wash Solution Concentrate was not diluted before use.</td>
</tr>
<tr>
<td></td>
<td>Use of water instead of Elution Buffer for elution of DNA.</td>
</tr>
<tr>
<td>4.</td>
<td>Purity of the DNA is lower than expected; $A_{260}/A_{280}$ ratio is low</td>
</tr>
<tr>
<td>5.</td>
<td>Purity of the DNA is lower than expected; RNA contamination</td>
</tr>
<tr>
<td>A&lt;sub&gt;260&lt;/sub&gt;/A&lt;sub&gt;280&lt;/sub&gt; ratio is too high.</td>
<td>RNase A and repurified.</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><em>6.</em> DNA is sheared</td>
<td>Improper handling of genomic DNA</td>
</tr>
<tr>
<td>Cells are old</td>
<td>Cells grown for a longer time period may lyse prematurely when subjected to cell wall lysing enzymes, which may result in the release of endogenous nucleases and subsequent DNA degradation.</td>
</tr>
<tr>
<td><em>7.</em> Downstream applications are inhibited</td>
<td>Traces of ethanol present in the final genomic DNA preparation</td>
</tr>
</tbody>
</table>

**Safety Information**

The HiPurA® 96 Yeast Genomic DNA Purification Kit is for laboratory use only, not for drug, household or other uses. The Lysis Solution (C1) contains chaotropic salts, which are irritants. Take appropriate laboratory safety measures and wear gloves when handling. Not compatible with disinfecting agents containing bleach. Please refer the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

**Disposal**

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed off in accordance with current laboratory techniques.

**Technical Assistance**

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail to mb@himedialabs.com.
Storage temperature

15°C

25°C

Do not use if package is damaged

HiMedia Laboratories Pvt. Limited,
23 Vadhani Industrial Estate,
LBS Marg, Mumbai-86, MS, India

Disclaimer:
User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to the specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is assumed for infringement of any patents.