**Lambda DNA–HindIII Digest**

**N3012S**

150 gel lanes (150 µg)  
Lot: 1741302  
500 µg/ml  
Store at –20°C  
Exp: 2/15

1.5 ml Gel Loading  
Dye, Blue (6X)  
Store at 25°C

**Description:** The HindIII digest of lambda DNA (d857 Sam 7) yields 8 fragments suitable for use as molecular weight standards for agarose gel electrophoresis (1).

**Supplied in:** 10 mM Tris-HCl (pH 8.0) and 1 mM EDTA.

**Source:** The phage is isolated from the heat-inducible lysogen E. coli λ d857 S7 and then isolated from the purified phage by phenol extraction and dialyzed.

The double-stranded DNA is digested to completion with HindIII, phenol extracted and dialyzed against 10 mM Tris-HCl (pH 8.0) and 1 mM EDTA.

**Reagents supplied:**  
6X Gel Loading Dye, Blue

**1X Gel Loading Dye, Blue:**  
2.5% Ficoll-400  
11 mM EDTA  
3.3 mM Tris-HCl (pH 8.0@25°C)  
0.017% SDS  
0.015% bromophenol blue

**Usage Recommendation:** The approximate mass of DNA in each of the bands in our Lambda DNA–HindIII Digest is as follows (assuming a 1.0 µg loading):

<table>
<thead>
<tr>
<th>Fragment</th>
<th>Base Pairs</th>
<th>DNA Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23,130</td>
<td>477 ng</td>
</tr>
<tr>
<td>2</td>
<td>9,416</td>
<td>194 ng</td>
</tr>
<tr>
<td>3</td>
<td>6,557</td>
<td>135 ng</td>
</tr>
<tr>
<td>4</td>
<td>4,361</td>
<td>90 ng</td>
</tr>
<tr>
<td>5</td>
<td>2,322</td>
<td>46 ng</td>
</tr>
<tr>
<td>6</td>
<td>2,027</td>
<td>42 ng</td>
</tr>
<tr>
<td>7</td>
<td>564</td>
<td>12 ng</td>
</tr>
<tr>
<td>8</td>
<td>125</td>
<td>3 ng</td>
</tr>
</tbody>
</table>

**Note:** For long term storage, store at –20°C. If samples need to be diluted, use TE or other buffer of minimal ionic strength. DNA may denature if diluted in dH2O and subsequently heated. Temperatures > 60°C may cause denaturation. The cohesive ends of fragments 1 and 4 may be separated by heating to 60°C for 3 minutes.

**References:**


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**Suggested protocol for loading a sample:**

The following protocol is recommended for a 5 mm wide lane.

1. Prepare loading mixture:  
   - Distilled water 3 µl  
   - 6X Blue Loading Dye 1 µl  
   - DNA Ladder 2 µl  
   - Total volume 6 µl

2. Mix gently

3. Load onto the agarose gel

**Note:** The components of the mixture should be scaled up or down, depending on the width of the agarose gel.