Description

The Unstained Protein Molecular Weight Marker is suitable for precise sizing of proteins by SDS-PAGE. It is a mixture of 7 purified proteins that resolve into sharp bands in the range of 14.4 kDa to 116.0 kDa when analyzed by SDS-PAGE and stained with Coomassie Brilliant Blue R-250 (1) or using PageBlue™ Protein Staining Solution.

Contents

0.1-0.2 mg/ml of each protein listed below.

<table>
<thead>
<tr>
<th>MW, kDa</th>
<th>Protein</th>
<th>Source</th>
<th>Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>116.0</td>
<td>β-galactosidase</td>
<td><em>E. coli</em></td>
<td>2</td>
</tr>
<tr>
<td>66.2</td>
<td>Bovine serum albumin</td>
<td>bovine plasma</td>
<td>3</td>
</tr>
<tr>
<td>45.0</td>
<td>Ovalbumin</td>
<td>chicken egg white</td>
<td>4</td>
</tr>
<tr>
<td>35.0</td>
<td>Lactate dehydrogenase</td>
<td>porcine muscle</td>
<td>5</td>
</tr>
<tr>
<td>25.0</td>
<td>REase Bsp98I</td>
<td><em>E. coli</em></td>
<td>6</td>
</tr>
<tr>
<td>18.4</td>
<td>β-lactoglobulin</td>
<td>bovine milk</td>
<td>7</td>
</tr>
<tr>
<td>14.4</td>
<td>Lysozyme</td>
<td>chicken egg white</td>
<td>8</td>
</tr>
</tbody>
</table>

In total 2 vials. BSA included: Lot # BSA62-313P

12% Tris-glycine SDS-PAGE
Storage Buffer
62.5 mM Tris-HCl (pH 7.0 at 25°), 1 mM EDTA,
2% SDS, 50 mM DTT, 30 mM NaCl, 1 mM NaN₃,
0.01% bromophenol blue and 50% glycerol.

Recommended Loading Volume

<table>
<thead>
<tr>
<th>Load Volume</th>
<th>Gel</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 µl</td>
<td>0.75 mm thick mini</td>
</tr>
<tr>
<td>10 µl</td>
<td>1.5 mm thick mini</td>
</tr>
<tr>
<td></td>
<td>0.75 mm thick large</td>
</tr>
<tr>
<td>20 µl</td>
<td>1.5 mm thick large</td>
</tr>
</tbody>
</table>

Recommended Gel Percentage
12% (37.5:1 Acrylamide:Bis-Acrylamide)

The Marker can be run on the other percentage (8-15%) gels. 8-10% gels may cause proteins with low molecular weights to migrate with the dye front. On 12-15% and gradient gels all bands are visible.

Instruction for Use
1. Thaw the Marker at room temperature or heat for a few minutes at 37-40°C. Vortex gently to ensure the solution is homogeneous.
2. It is recommended to divide the Marker into several aliquots to avoid contamination of the stock solution. Remove the required amount of marker from the stock solution and transfer to a clean tube.
3. Heat this tube at 95°C for 5 minutes for complete denaturation of proteins. Cooled and mixed solution is ready for loading on an SDS-PAGE gel.
4. Load the Marker on an SDS-PAGE gel and run.
5. Coomassie (see www.fermentas.com), silver (9) or other proteins staining methods can be used to visualize the Marker.
   Note: since silver staining is 10 to 100 times more sensitive than Coomassie Blue staining, the amount of Marker applied should be decreased accordingly.
6. Store denatured marker at -20°C.
7. For the further loading thaw the Marker at room temperature or heat at 37-40°C for a few minutes, then vortex. Do not heat the Marker at higher temperature.
8. Because of the SDS presence in storage buffer the Marker should not be used in a native polyacrylamide gel electrophoresis for determining native molecular weights of proteins.

QUALITY CONTROL
5 µl of Marker run on a 12% SDS-PAGE (mini gel) and stained with Coomassie Brilliant Blue R-250 provide 7 bands of equal color intensities.

Quality authorized by: Jurgita Zilinskiene

(continued on back page)
References

Related Product
- Loading Buffer Pack #R0891
- PageBlue™ Protein Staining Solution #R0571
- DTT #R0861 #R0862

Coomassie is a registered trademark of Imperial Chemical Industries, Ltd.

PRODUCT USE LIMITATION
This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

(4) Revised 28.04.2006