

EUROMEDEX

CERTIFICATE OF ANALYSIS

Unstained Protein Molecular Weight Marker

#06U-0511 **2x 1000 µl**

(for 400 mini gel applications 5µl per well or for 200 large gel applications 10µl per well)

Lot **Exp. date:**

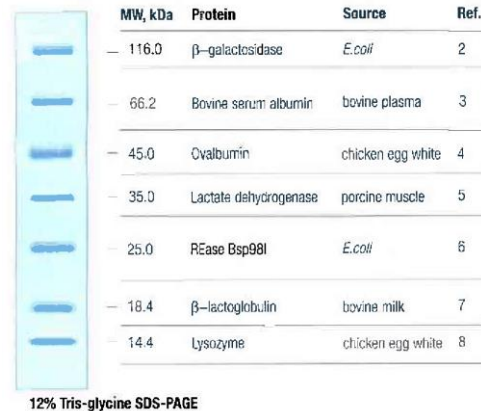
Store at -20°C

*In total 2 vials.
BSA included.*

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 14.4kDa to 116.0kDa when analyzed by SDS-PAGE and stained with Coomassie Brilliant Blue R-250 (1) or using Protein Staining Solution.

Contents: 0.1-0.2mg/ml of each protein listed below



Storage Buffer

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

Recommended Loading Volume

Load Volume Gel

5µl 0.75mm thick mini

10µl 1.5mm thick mini

0.75mm thick large

20µl 1.5mm thick large

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

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

5µl 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.

References

1. Laemmli, U.K., Cleavage of structural proteins during the assembly of the head of bacteriophage T4, Nature, 227, 680-685, 1970.
2. Fowler, A.V., Zabin, I., The amino acid sequence of beta galactosidase of Escherichia coli, Proc. Natl. Acad. Sci. USA, 74, 1507-1510, 1977.
3. Brown, J.R., Structure of bovine serum albumin, Fed. Proc.,34, 591, 1975.
4. Warner, R.C., Egg proteins, Proteins, II A., 435, (Neurath, H., Bailey, K., eds.), Academic Press, N.Y., 1954.
5. Castellino, F.J., Barker, R., Examination of the dissociation of multichain proteins in guanidine hydrochloride by membrane osmometry, Biochemistry, 7, 2207-2217, 1968.
6. Unpublished results.
7. Dayhoff, M., Atlas of Protein Sequence and Structure, vol.4, National Biomedical Research Foundation, Silver Spring,M.D., 1969.
8. Jolles, P., Lysozymes: A chapter of molecular biology,Angew. Chem., Intl. Edit., 8, 227-294, 1969.
9. Sorense, B.K., et al., Silver Staining of Proteins on Electrophoresis, Analytical Biochemistry, 304, 33-41, 2002.

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

EUROMEDEx

24, rue des Tuileries BP 684
F-67460 SOUFFELWEYERSHEIM CEDEX
Tél.: 03 88 18 07 22
Fax: 03 88 18 07 25
e-mail: research@euromedex.com
Internet: www.euromedex.com