

Product Information

Biotinylated Molecular Weight Marker (M.W. 6,500–180,000)

Catalog Number **B2787**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Product Description

Biotinylated molecular mass markers have been developed for use as standards for the estimation of the molecular masses of blotted proteins.¹ Visualization is accomplished using streptavidin-peroxidase, eliminating the need to cut out separate lanes for general protein stains, and can be performed simultaneously with immunostaining procedures.

The Biotinylated Molecular Weight Marker contains nine biotinylated proteins (see Table 1) that have been blended to give approximately equal intensities when detected on nitrocellulose with streptavidin-peroxidase (Catalog Number S2438) and a color development reagent. Each vial contains ~ 0.1 mg of total biotinylated proteins, 0.1 mg NaCl, and 0.1 mg sucrose.

1 vial is sufficient for 200 applications on a mini-gel (10×10 cm).

Table 1.
Biotinylated Protein Mixture in B2787

Protein	Molecular Mass (Subunit)
α_2 -Macroglobulin, equine serum	180,000
β -Galactosidase, <i>E. coli</i>	116,000
Phosphorylase B, rabbit muscle	97,000
Catalase, bovine liver	58,100
Alcohol Dehydrogenase, yeast	39,800
Carbonic Anhydrase, bovine erythrocyte	29,000
Trypsin Inhibitor, soybean	20,100
Lysozyme, chicken egg white	14,300
Aprotinin, bovine lung	6,500

This marker may be used with either a modified Laemmli² procedure or a modified Weber and Osborn³ procedure.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the lyophilized powder desiccated at $-20\text{ }^{\circ}\text{C}$. After reconstitution, store working aliquots at $-20\text{ }^{\circ}\text{C}$. Repeated freeze-thaw cycles are not recommended.

Procedure

- For the Laemmli procedure, reconstitute each vial with 1 ml of fresh 1 \times Sample Buffer and incubate for 2–3 minutes at $100\text{ }^{\circ}\text{C}$ immediately before use. Alternatively, the solution may be incubated at $37\text{ }^{\circ}\text{C}$ for 2 hours. Divide any unused portion into working aliquots and store at $-20\text{ }^{\circ}\text{C}$.
Note: The 1 \times Sample Buffer contains 0.063 M Tris-HCl, pH 6.75, 10% (v/v) glycerol, 2% (w/v) SDS, 5% (v/v) 2-mercaptoethanol, and .002% (w/v) bromophenol blue. This 1 \times Sample Buffer may be prepared by dilution of Catalog Number S3401, a Laemmli Sample Buffer, 2 \times concentrate.
- Load 10 μl of the reconstituted marker for a standard sized gel (16×18 cm) or 5 μl for a mini-gel (10×10 cm).

References

- Della-Penna, D. *et al.*, *Anal. Biochem.*, **152**, 329 (1986).
- Laemmli, U.K., *Nature*, **227**, 680 (1970).
- Weber, K., and Osborn, M., *J. Biol. Chem.*, **244**, 4406 (1969).

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