

Product Information

Silver Stain Molecular Weight Marker Wide Range (M.W. 6,500–180,000)

Catalog Number **M6539**
Storage Temperature –20 °C

Product Description

The Silver Stain Molecular Weight Marker Wide Range is designed for molecular mass determinations on silver stained SDS-PAGE gels using the Laemmli system.¹ The 9 proteins (see Table 1) in this marker cover the range of molecular masses common to most proteins or their subunits. The marker is formulated to yield a distribution of well-defined bands of approximately equal intensity with low background after electrophoresis and staining with either Rapid Silver Stain (Catalog Number RSK1), ProteoSilver™ (Catalog Number PROTSIL1), or ProteoSilver Plus (Catalog Number PROTSIL2).

Table 1.
Protein Mixture in M6539

Protein	Molecular Mass (Da)
α ₂ -Macroglobulin, human plasma	180,000
β-Galactosidase, <i>E. coli</i>	116,000
Phosphorylase b, rabbit muscle	97,000
Albumin, bovine serum	66,000
Fumarase, porcine heart	48,500
Carbonic Anhydrase, bovine erythrocytes	29,000
β-Lactoglobulin, bovine milk	18,400
α-Lactalbumin, bovine milk	14,200
Aprotinin, bovine lung	6,500

Each vial of Silver Stain Molecular Weight Marker contains 200 μl of a mixture of 9 proteins in 300 mM NaCl, 100 mM DTT, 3 mM NaN₃, and 50% glycerol.

One vial is sufficient for
300 applications on a standard gel (16 × 14 cm)
600 applications on a mini-gel (10 × 10 cm)

A 6 ml vial of Sample Buffer, Laemmli 2× Concentrate (Catalog Number S3401) is also included. The Sample Buffer, Laemmli 2× Concentrate is a solution of 0.125 M Tris-HCl, pH 6.8, 4% SDS, 20% glycerol, 10% 2-mercaptoethanol, and 0.004% bromophenol blue.

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.

Preparation Instructions

Prepare 1× Laemmli Sample Buffer by diluting the Sample Buffer, Laemmli 2× Concentrate 2-fold with water.

Dilute 1 μl of the Silver Stain Molecular Weight Marker 30-fold with 29 μl of the 1× Laemmli Sample Buffer.

Storage/Stability

The product ships on dry ice and storage at –20 °C is recommended. After first thaw, store the marker in aliquots at –20 °C. Any remaining portion of the diluted marker may be stored at –20 °C for future use. Repeated freezing and thawing of the diluted marker is not recommended.

Procedure

Heat the diluted marker in a boiling water bath for 1–2 minutes.

Recommended sample volumes:

standard size gels (16 × 14 cm) – 20 μl/well
mini-gels (10 × 10 cm) – 10 μl/well

For the Silver Stain Molecular Weight Marker Wide Range, a 4-20% gradient gel is recommended.

References

1. Laemmli, U.K., *Nature*, **227**, 680 (1970).

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