

Specifications

Contents *Approximately 625 µg total protein* in 33% (v/v) glycerol, 3% SDS, 10 mM Tris pH 7.0, 10 mM DTT, 2 mM EDTA, 0.01% NaN₃.*

Storage -20 °C

Shelf life 1 year at -20 °C

Volume 500 µl

Applications per vial 25-100

* Total protein concentration is an approximation based on the average concentrations of multiple lots. Actual concentrations will vary.

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Bio-Rad's prestained standards are available in high, low, and broad molecular weight ranges. Blue dye has been covalently attached to the standard proteins and will not be dissociated by normal staining or destaining. The protein mixtures are provided in a stable aqueous solution. No reconstitution or further dilution is required before use.

Applications

Prestained SDS-PAGE Standards provide a quick and easy way to assess the quality of an electrophoretic transfer and act as a control in repetitive blotting experiments. The visibility of the standards makes it possible to monitor the separation of proteins while electrophoresis is in progress, even after the dye front has run off the gel. The standards can also be used to locate a protein for excision from an unstained preparative gel.

Ordering Information

Catalog Number Product Description

Prestained Standards

161-0305 **Prestained SDS-PAGE Standards**, low range, 500 µl
 161-0309 **Prestained SDS-PAGE Standards**, high range, 500 µl
 161-0318 **Prestained SDS-PAGE Standards**, broad range, 500 µl
 161-0324 **Kaleidoscope Prestained Standards**, 500 µl
 161-0325 **Kaleidoscope Polypeptide Standards**, 500 µl
 161-0372 **Precision Prestained Standards**, (10 kD - 250 kD), 500 µl

Molecular Weight Standards

161-0304 **SDS-PAGE Standards**, low range, 200 µl
 161-0303 **SDS-PAGE Standards**, high range, 200 µl
 161-0317 **SDS-PAGE Standards**, broad range, 200 µl
 161-0314 **Silver Stain SDS-PAGE Standards**, low range, 200 µl
 161-0315 **Silver Stain SDS-PAGE Standards**, high range, 200 µl
 161-0306 **Biotinylated SDS-PAGE Standards**, low range, 250 µl
 161-0311 **Biotinylated SDS-PAGE Standards**, high range, 250 µl
 161-0319 **Biotinylated SDS-PAGE Standards**, broad range, 250 µl
 161-0326 **Polypeptide SDS-PAGE Standards**, 200 µl
 161-0362 **Precision Unstained Standards**, (10 kD - 250 kD), 1,500 µl

Bio-Rad Laboratories

2000 Alfred Nobel Dr., Hercules, CA 94547
 510-741-1000

4006026 Rev D

Prestained SDS-PAGE Standards, Broad Range

Catalog #
 161-0318

Product shipped at room temperature
 Store at -20 °C upon arrival

BIO-RAD

Protein Molecular Weights

The molecular weights of every lot of prestained standards are individually calibrated against Bio-Rad's SDS-PAGE Standards. The lot specific calibrated molecular weights are included with every vial. Prestained standards are useful for estimating the molecular weights of sample proteins, however, for precise molecular weight determination, use Bio-Rad's SDS-PAGE, Silver Stain SDS-PAGE, or Biotinylated SDS-PAGE Standards in addition to the prestained standards.

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Instructions for Use

Heat the solution to 40 °C for 1 minute to dissolve any solids which may have precipitated at -20 °C. To visualize the prestained standards after blotting, load 10 µl for full size gels (16-20 cm) and 5 µl for mini gels. To visualize the standards during electrophoresis, load 20 µl for full length gels and 10 µl for mini gels. To see the standards during the run, it is helpful to hold a sheet of white paper behind the gel.

Note:

The prestaining of the proteins substantially inhibits them from being further stained with biotin/avidin systems, colloidal gold, Coomassie® R-250 dye, or amido black. The standards can be silver stained, but silver staining will result in broad bands because of the large amount of protein in the sample.

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Constituent Proteins

(See enclosed insert for lot specific calibrated molecular weights.)[†]

Protein	Source
Myosin	Rabbit skeletal muscle
β-galactosidase	<i>E. coli</i>
Bovine serum albumin	Bovine plasma
Ovalbumin	Chicken egg white
Carbonic anhydrase	Bovine erythrocytes
Soybean trypsin inhibitor	Soybean
Lysozyme	Chicken egg white
Aprotinin	Bovine pancreas

† Covalently bound dye alters the molecular weight of the proteins and produces relatively broad bands. The molecular weights are calibrated from the center of each protein band.

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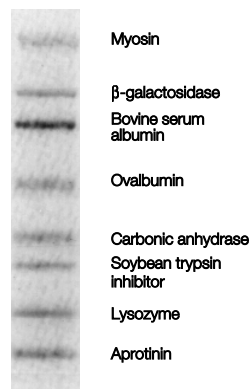


Fig. 1. A wide molecular weight range is covered by the broad range prestained standards. 5 µl of the standards were run on a 4-20% Ready Gel according to the method of Laemmli.¹ The standards were then electrophoretically transferred to nitrocellulose using the Mini-Trans-Blot® Cell.

Reference

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

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