

CERTIFICATE OF ANALYSIS

IMPROVED
green 10 kDa band

PageRuler[™]

Prestained Protein Ladder

#SM0671 2 x 250 µl

(for 100 mini gel applications 5 µl per well or 50 large gel applications 10 µl per well)

Lot: **Expiry Date:**

Store at -20°C

In total 2 vials.

Description

PageRuler[™] Prestained Protein Ladder is a mixture of 10 recombinant, highly purified colored proteins with apparent molecular weights of 10 kDa to 170 kDa. Ladder proteins are covalently coupled with a blue dye except for two reference bands prestained with different colors. The 72 kDa reference band is orange and 10 kDa reference band is green.

The ladder is supplied in gel loading buffer and is ready-to-use: no heating, further dilution or addition of a reducing agent is required.

Contents

Approximately 0.1-0.2 mg/ml of each protein in the storage buffer (62.5 mM Tris-H₃PO₄ (pH 7.5 at 25°C), 1 mM EDTA, 2% (w/v) SDS, 10 mM DTT, 1 mM NaN₃ and 33% (v/v) glycerol).

Applications

- Monitoring of protein separation during SDS-PAGE (1).
- Verifying Western transfer efficiency (2, 3).
- Approximate sizing of proteins on SDS-polyacrylamide gels and Western blots.

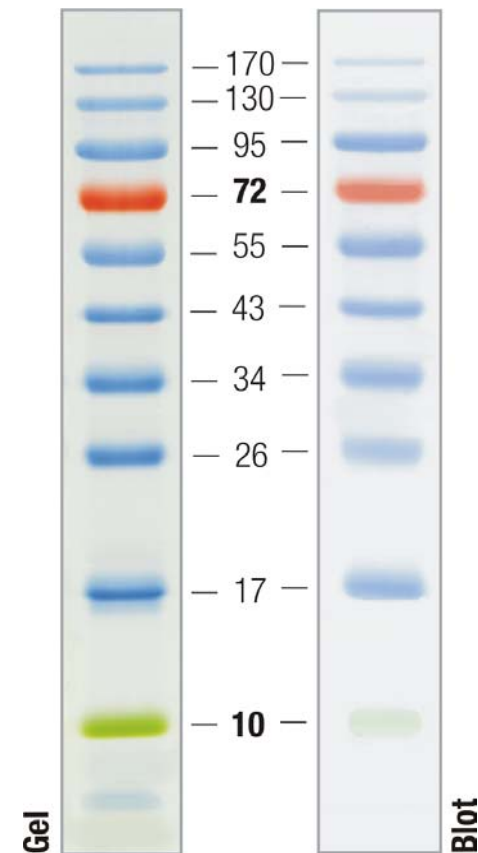
Instruction for Use

- 1 Thaw the ladder at room temperature for a few minutes to dissolve precipitated solids. **DO NOT BOIL!**
- 2 Mix gently, but thoroughly, to ensure the solution is homogeneous.
- 3 Load the following volumes of the ladder on an SDS-polyacrylamide gel:
 - 5 µl per well for mini gel,
 - 10 µl per well for large gel.Use the same volumes for Western blotting.
- 4 After the run is complete, stain the gel or perform Western transfer procedure as desired.

Note

- Each lot of the PageRuler™ Prestained Protein Ladder is calibrated against a precisely sized, PageRuler™ Unstained Protein Ladder and calculated apparent molecular weights are reported in the picture.
- For precise molecular weight determinations use PageRuler™ Unstained Protein Ladder, #SM0661, see www.fermentas.com.
- In 8 or 10% gels low molecular weight proteins may migrate with the dye front.
- Loading volumes are intended for use in gels with a thickness of 0.75 mm. For thicker gels, the recommended loading volume should be increased.
- PageRuler™ Prestained Protein Ladder could be used in Western blotting with all common membranes: PVDF, nylon and nitrocellulose.
- Longer transfer times or higher transfer voltages may be required for Western blotting of large (>100 kDa) proteins.

Lot specific MW, kDa



4-20% Tris-glycine SDS-PAGE

IMPROVEMENT

Green 10 kDa reference band for easier orientation.

continued on back page

QUALITY CONTROL

5 µl of PageRuler™ Prestained Protein Ladder resolves 10 bands of equal intensities in 4-20% SDS-PAGE (Tris-glycine buffer) and after Western blotting onto PVDF membrane.

Quality authorized by:

 Jurgita Zilinskiene

References

1. Laemmli, U.K., Cleavage of structural proteins during the assembly of the head of bacteriophage T4, *Nature*, 227, 680-685, 1970.
2. Burnette, W.N., "Western blotting": electrophoretic transfer of proteins from sodium dodecyl sulfate – polyacrylamide gels to unmodified nitrocellulose and radiographic detection with antibody and radioiodinated protein A, *Anal. Biochem.*, 112 (2), 195-203, 1981.
3. Towbin, H., et al., Electrophoretic transfer of proteins from polyacrylamide gels to nitrocellulose sheets: procedure and some applications, *Proc. Natl. Acad. Sci. USA*, 76, 4350-4354, 1979.

This product is manufactured under the license for **Strep-tag®** technology covered by US patents Nos. 5,506,121, 6,103,493 and foreign counterparts.

Related Products

- DualColor™ Protein Loading Buffer Pack #R1011
- Loading Buffer Pack #R0891
- Spectra™ Multicolor Broad Range Protein Ladder #SM1841
- PageRuler™ Unstained #SM0661
- PageRuler™ Plus Prestained Protein Ladder #SM1811
- PageSilver™ Silver Staining Kit #K0681
- PageBlue™ Protein Staining Solution #R0571
- 10X Tris-glycine-SDS Buffer #B46
- 10X Tris-tricine-SDS Buffer #B48
- DTT #R0861
- ProteoJET™ Mammalian Cell Lysis Reagent #K0301
- ProteoJET™ Cytoplasmic and Nuclear Protein Extraction Kit #K0311
- Bradford Reagent, ready-to-use #R1271
- Bovine Serum Albumin Standard Set, ready-to-use #R1281
- Bovine Gamma Globulin Standard Set, ready-to-use #R1291

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.

Please refer to www.fermentas.com for Material Safety Data Sheet of the product.