

PRODUCT INFORMATION

Thermo Scientific PageRuler Prestained Protein Ladder

Pub. No. MAN0011772

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Components	#26616	#26617	#26618
PageRuler Prestained Protein Ladder	2 x 250 µL	10 x 250 µL	25 µL

Store at -20°C

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For Research Use Only. Not for use in diagnostic procedures.

Introduction

The Thermo Scientific™ PageRuler™ Prestained Protein Ladder is a prestained mixture of ten recombinant proteins ranging from 10 kDa to 180 kDa. Three different chromophores are bound to the proteins, producing a brightly colored ladder. The protein ladder is conveniently packaged and ready to use with no heating, diluting or additional reducing agent necessary. Lot-to-lot variation of the apparent molecular weight of prestained proteins is ~5 %.

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, 33 % (v/v) glycerol.

Important Product Information

- Do not boil the protein ladder.
- The protein ladder can be stored at 4 °C for up to 3 months.
- For precise protein MW determination use the PageRuler Broad Range Unstained Protein Ladder (#26630).

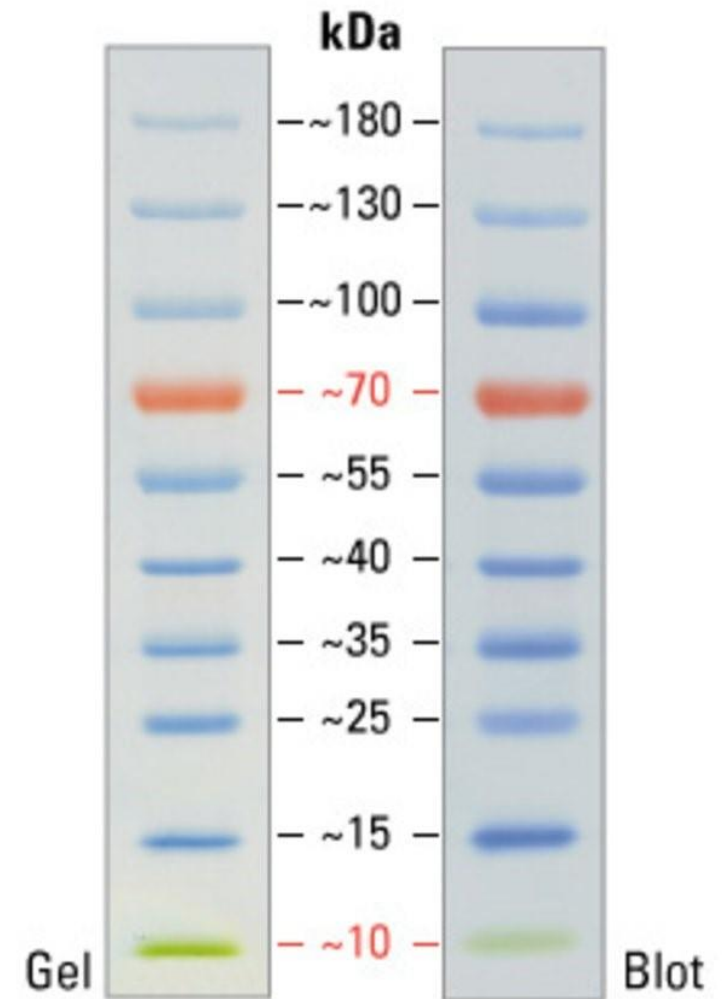
Recommendations for Loading

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 μ L per well for mini gel,
 - 10 μ L per well for large gel.Use the same volumes for Western blotting.
The loading volumes listed above are recommended for gels with a thickness of 0.75-1.0 mm. The loading volume should be doubled for 1.5 mm thick gels.

Important Notes

- Prestained proteins can have different mobilities in various SDS-PAGE-buffer systems. However, they are suitable for approximate molecular weight determination when calibrated against unstained standards in the same system. See the table provided for migration patterns in different electrophoresis conditions.
- In low-percentage gels (< 10 %), the low-molecular weight proteins in the ladder may migrate with the dye front.
- PageRuler Prestained Protein Ladder can 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.

PageRuler Prestained Protein Ladder



4-20% Tris-glycine SDS-PAGE

General References

Burnette, W.N. (1981). "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.

Kurien, B.T. and Scofield, R.H. (2003). Protein blotting: a review. *J Imm Meth* 274:1-15.

Laemmli, U.K. (1970). Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature* 227:680-5.

Towbin, H., et al. (1979). Electrophoretic transfer of proteins from polyacrylamide gels to nitrocellulose sheets: procedure and some applications. *Proc Natl Acad Sci USA* 76:4350-4.

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.thermofisher.com for Material Safety Data Sheet of the product.

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