

PageRuler™ Unstained Protein Ladder

26614

Pub. No. MAN0011771

Rev. B.0

Pub Part No. 2162352.2

Number	Description
26614	PageRuler Unstained Protein Ladder, 2 × 250µL

Storage Buffer: 62.5mM Tris•H₃PO₄ (pH 7.5 at 25°C), 1mM EDTA, 2% (w/v) SDS, 10mM DTT, 1mM NaN₃ 0.01% (w/v) bromophenol blue and 33% (v/v) glycerol.

Storage: Upon receipt store at -20°C. Product is shipped with an ice pack.

Introduction

The Thermo Scientific PageRuler Unstained Protein Ladder consists of a mixture of 14 recombinant, highly purified proteins ranging from 10kDa to 200kDa. The ladder is visualized by SDS-PAGE using coomassie or silver stains or detected in Western blots with protein stains. For easy reference, the 50kDa protein band has a greater intensity than the other proteins in the ladder (see website for product images). The protein ladder is conveniently packaged and ready to use with no heating, diluting or additional reducing agent necessary.

Important Product Information

- Do not boil the protein ladder.
- In high-percentage gels (14-18%), large proteins (150-200kDa) may not separate.
- In low-percentage gels (4-8%), low-molecular weight proteins may migrate with the dye front.
- The large proteins (> 100kDa) in the ladder may require longer transfer times or higher transfer voltages for Western blotting.
- If additional bands appear in the protein ladder, add newly prepared dithiothreitol (DTT) solution to 100mM final concentration. DTT oxidation in the storage buffer can cause the appearance of additional bands.

Procedure for Using the Protein Ladder in Polyacrylamide Gel Electrophoresis

1. Thaw the ladder at room temperature. Do not boil protein ladder.
2. Mix the solution gently and thoroughly to ensure it is homogeneous.
3. Load an appropriate volume of the ladder on the gel.
 - Mini-gel: 5µL per well (0.75-1.0mm thick) or 10µL per well (1.5mm thick)
 - Midi gel: 10µL per well (0.75-1.0mm thick) or 20µL per well (1.5mm thick)

Note: Dilute the ladder approximately 1/10 in reducing sample buffer for silver staining.
4. Return the unused protein ladder to -20°C for up to one year.

Related Products

Please see the catalog or website for a complete listing of protein gels and Western blotting products.

26616	PageRuler Prestained Protein Ladder, 2 × 250µL
26619	PageRuler Plus Prestained Protein Ladder, 2 × 250µL
26630	PageRuler Broad Range Unstained Protein Ladder, 2 × 250µL
26632	PageRuler Low Range Unstained Protein Ladder, 2 × 250µL
26634	Spectra™ Multicolor Broad Range Protein Ladder, 2 × 250µL
26625	Spectra Multicolor High Range Protein Ladder, 2 × 250µL
26628	Spectra Multicolor Low Range Protein Ladder, 250µL
LC5615	iBright™ Prestained Protein Ladder
84786	SuperSignal™ Enhanced Molecular Weight Protein Standards, 250µL
XP04200BOX	Novex™ Tris-Glycine protein gels (see thermofisher.com/proteingels for a complete listing)
NW04120BOX	Bolt™ Bis-Tris Plus protein gels (see thermofisher.com/proteingels for a complete listing)
24615	Imperial™ Protein Stain, 1L
LC6060	SimplyBlue™ SafeStain

General References

- Alegria-Schaffer, A., *et al.* (2009). Performing and optimizing Western blots with an emphasis on chemiluminescent detection. *Methods Enzymol* **463**:573-99.
- 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.

This product ("Product") is warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts ("Documentation") and to be free from defects in material and workmanship. Unless otherwise expressly authorized in writing, Products are supplied for research use only. No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the original purchaser of the Product ("Buyer").

No other warranties, express or implied, are granted, including without limitation, implied warranties of merchantability, fitness for any particular purpose, or non infringement. Buyer's exclusive remedy for non-conforming Products during the warranty period is limited to replacement of or refund for the non-conforming Product(s).

There is no obligation to replace Products as the result of (i) accident, disaster or event of force majeure, (ii) misuse, fault or negligence of or by Buyer, (iii) use of the Products in a manner for which they were not designed, or (iv) improper storage and handling of the Products.

Current product instructions are available at thermofisher.com. For a faxed copy, call 800-874-3723 or contact your local distributor.

© 2017 Thermo Fisher Scientific Inc. All rights reserved. Unless otherwise indicated, all trademarks are property of Thermo Fisher Scientific Inc. and its subsidiaries. Printed in the USA.