Thermo SCIENTIFIC

PRODUCT INFORMATION

Thermo Scientific PageRuler Prestained Protein Ladder

#_____ ___

(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 (or at 4°C for 3 months)

www.thermoscientific.com/onebio

Description

Thermo Scientific PageRuler Prestained Protein Ladder is a 3-color protein molecular weight standard containing 10 prestained recombinant proteins covering a wide range molecular weights from 10 kDa to 170 kDa. The ladder contains one orange reference band of ~70 kDa and one green reference band of 10 kDa.

Lot-to-lot variation of the apparent molecular weight of prestained proteins is ~5%.

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.

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.
- Locating a protein of interest for excision from an unstained preparative gel.

Storage Buffer

62.5 mM Tris-H_3PO_4 (pH 7.5 at 25°C), 1 mM EDTA, 2% (w/v) SDS, 10 mM DTT, 1 mM NaN_3 and 33% (v/v) glycerol).

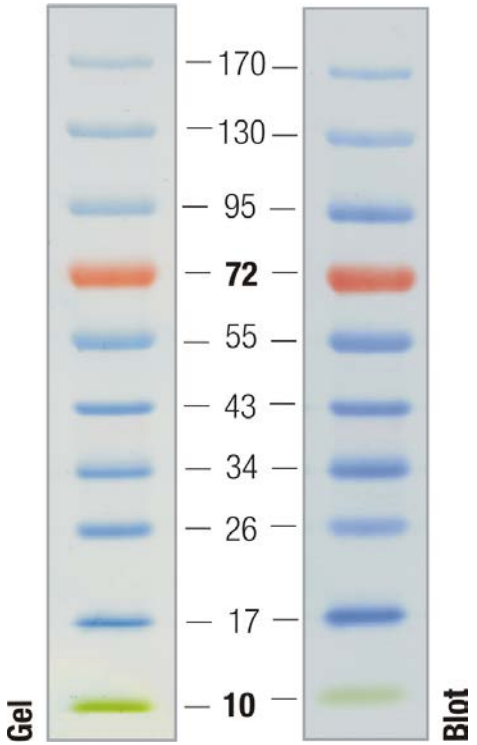
Recommendations for Loading

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 µl per well for mini gel,
   – 10 µl 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

- ☐ Each lot of the PageRuler™ Prestained Protein Ladder is calibrated against PageRuler Unstained Protein Ladder and calculated apparent molecular weights are reported in the picture.
- ☐ 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* reverse page for migration patterns in different electrophoresis conditions.
- ☐ For precise molecular weight determinations use PageRuler Unstained Protein Ladder, *see* www.thermoscientific.com/onebio.
- ☐ In 8 or 10% gels low molecular weight proteins 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.

Representative lot of PageRuler Prestained Protein Ladder, apparent MW, kDa



4-20% Tris-glycine SDS-PAGE

CERTIFICATE OF ANALYSIS

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

Quality authorized by: Jurgita Zilinskiene

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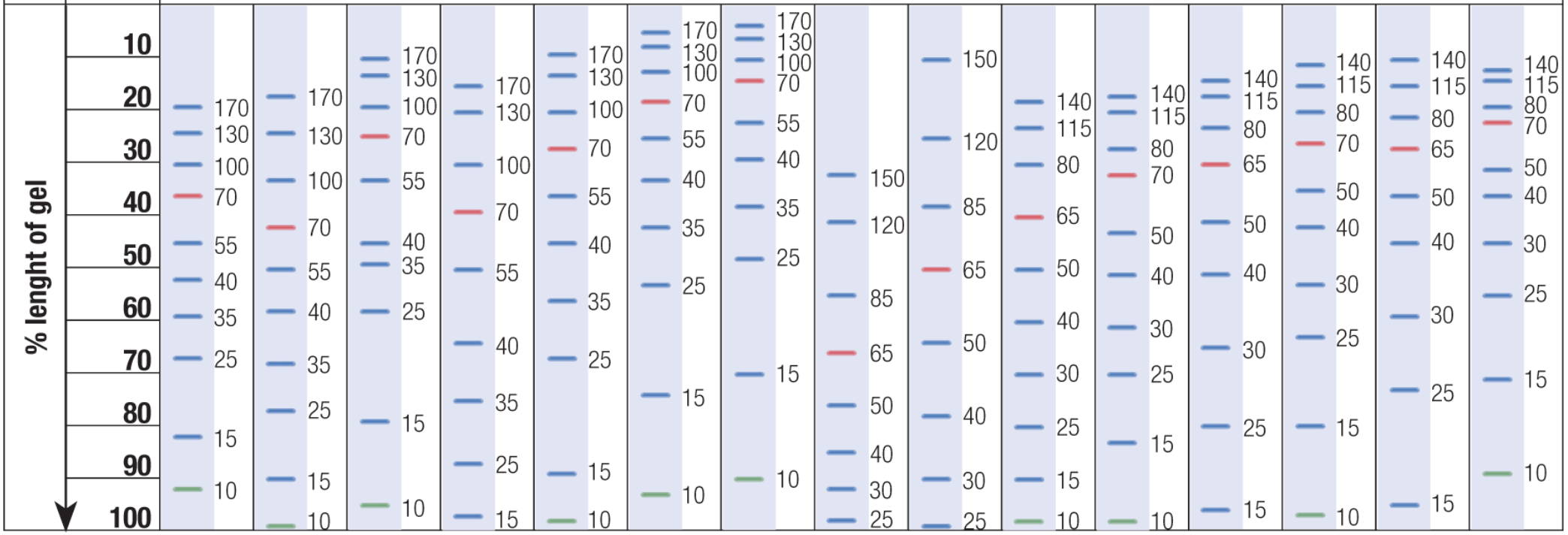
Migration Patterns Of PageRuler Prestained Protein Ladder

Gel type	Tris-Glycine							Tris-Acetate*		Bis-Tris*					
Gel concentration	4-20%	8-16%	10-20%	8%	10%	12%	15%	3-8%	7%	4-12%		10%		12%	
Running buffer	Tris-Glycine							Tris-Acetate		MOPS	MES	MOPS	MES	MOPS	MES



* migration patterns were determined using respective NuPAGE® precast gels.

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.

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.thermoscientific.com/onebio for Material Safety Data Sheet of the product.