



彩虹预染蛋白 Marker 说明书（简化版）

(W008-1-1)

试剂编号	试剂组成	规格装量	保存条件
R1	Thermo Scientific PageRuler Prestained Protein Ladder (进口分装)	250 μ L	Store at -20°C (or at 4°C for 3 months)

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

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-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).

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 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.

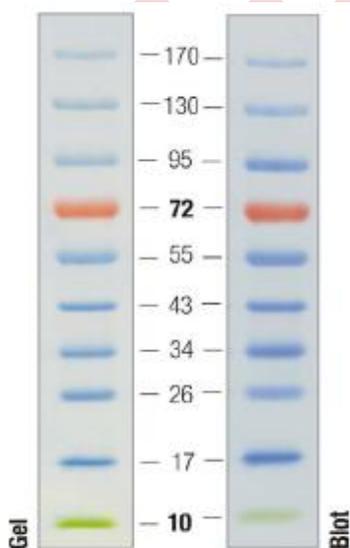
For precise molecular weight determinations use PageRuler Unstained Protein Ladder, see www.thermoscientific.com/onebio.

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.

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.

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	
		Apparent Molecular Weights, kDa														
% length of gel	10															
	20	170	170	170	170	170	170	170	170	130	150	140	140	140	140	140
	30	130	130	100	130	130	100	100	100	100	115	115	115	115	115	115
	40	100	100	70	100	100	70	55	40	120	80	80	80	80	80	80
	50	70	100	55	70	55	40	35	150	85	65	70	65	50	50	40
	60	55	70	40	40	40	35	25	120	65	50	50	50	40	40	30
	70	40	55	35	55	35	25	25	85	85	40	40	40	30	30	25
	80	35	40	25	40	25	15	15	65	50	30	25	30	25	25	15
	90	25	35	15	35	15	10	10	50	40	25	15	25	15	15	10
	100	15	25	10	25	15	10	10	40	30	15	10	15	10	10	10
	10	15	10	15	10	10	10	30	30	10	10	10	10	10	10	
	10	10	10	10	10	10	10	25	25	10	10	10	10	10	10	

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

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.