YamayBio

PRESTAINED PROTEIN LADDER SERIES BOOKLET

YamayBio

Head Office (USA)

6191 Cornerstone Court, Suite 107
San Diego, CA 9212
USA

info@yamaybio.com

www.yamaybio.com

+1 8 33-429-2629

Hong Kong Office

Flat D, 6/F, Haribest Industrial Building
45–47 Au Pui Wan Street
Sha Tin, New Territories
Hong Kong

info@yamaybio.com

www.yamaybio.com

+852 37535669

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Prestained Protein Ladder Series

The YamayBio Prestained Protein Ladder Series is designed for use in SDS-PAGE and Western blotting. Covering a broad molecular weight range, these ladders provide sharp, highly visible bands for accurate protein size estimation and consistent electrophoresis monitoring across routine research workflows.

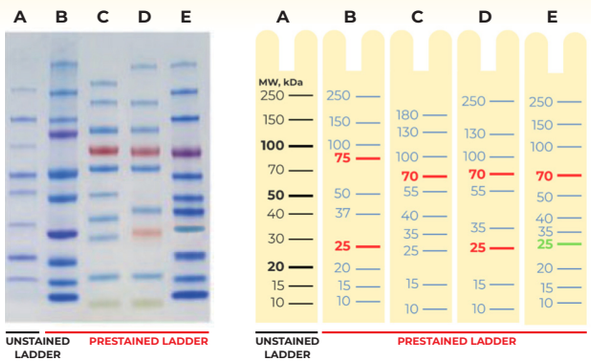
KEY FEATURES

Intuitive band distribution

Evenly spaced protein bands make molecular weight estimation faster and easier.

High molecular weight accuracy

Precisely calibrated bands ensure reliable size determination.



A : Thermo 26630
B : Bio-Rad 1610374
C : Thermo 26616
D : Thermo 26619
E : YamayBio CY5464

Fig. 1. Left: Unstained protein ladder and Pre-stained protein ladders. **Right:** The molecular weight of the 5 protein ladders.

Compared with unstained protein ladders, most bands of YamayBio CY5464 align accurately with their expected molecular weights.

In contrast, commonly used Thermo protein ladders show notable deviations at 10 kDa, 35 kDa, and 100 kDa. The Bio-Rad 1610347 ladder exhibits significant variability at the 75 kDa band and moderate variability at 37 kDa.

Excellent stability

Designed to maintain performance during freeze–thaw cycles and short-term room-temperature storage.

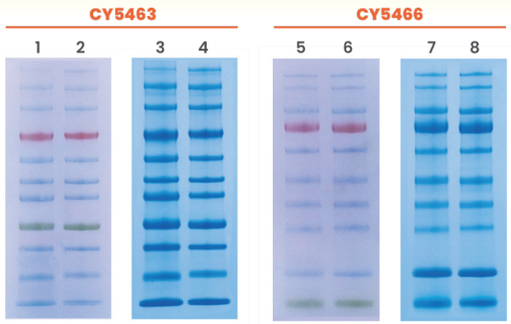


Fig. 2. Lanes 1, 3, 5, and **7** show protein ladders stored at room temperature for 60 days. **Lanes 2, 4, 6,** and **8** show protein ladders stored at −20 °C.

Protein ladders CY5463 and CY5466 were stored at room temperature for 60 days and at −20 °C. Analysis by 4–20% SDS-PAGE followed by Coomassie Brilliant Blue staining demonstrated that short-term room-temperature storage does not compromise ladder performance.

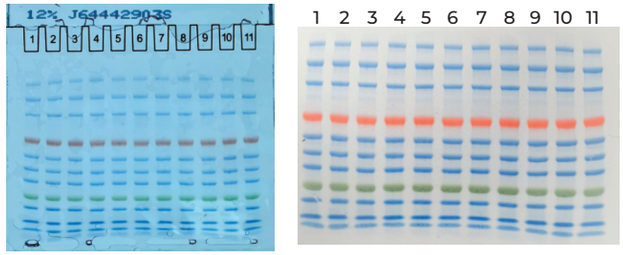


Fig. 3. A. 12% Bis-Tris SDS-PAGE Gel. **B.** Nitrocellulose Membrane. **Lanes 1–11** represent CY5466 protein ladders frozen at −80 °C and subjected to 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, and 50 freeze–thaw cycles. Consistent band patterns confirm excellent stability after repeated freezing and thawing.

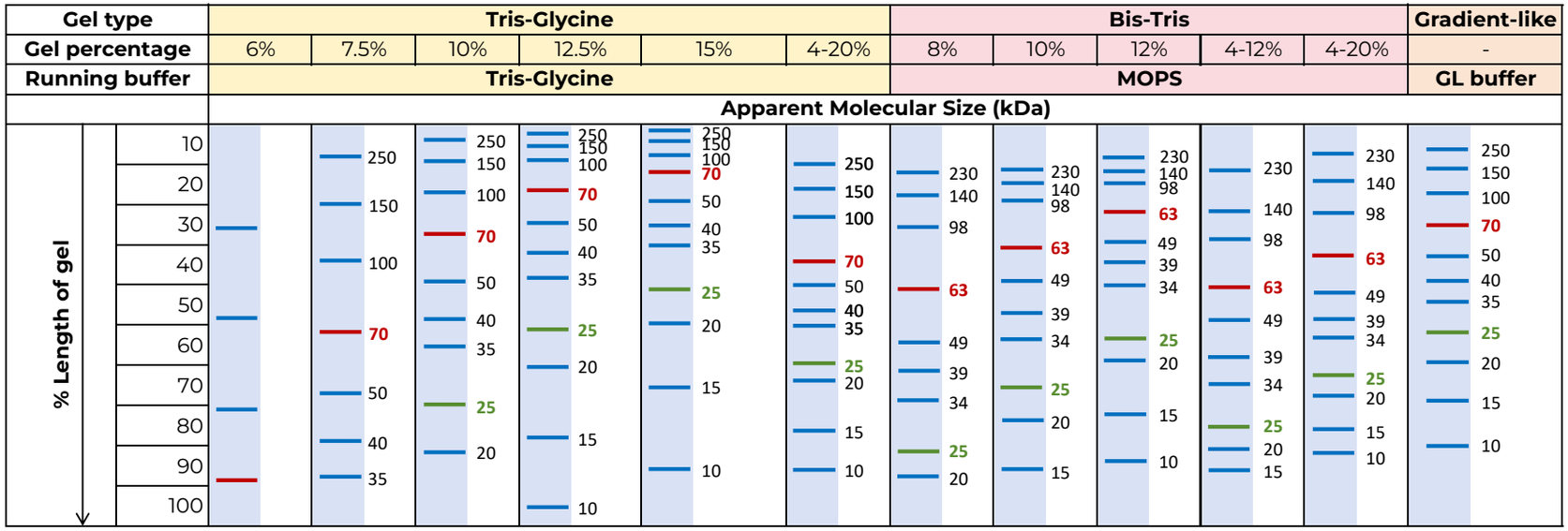
The result shows that CY5466 has excellent stability after 50 times repeatedly freezing and thawing.

Tag-free protein composition

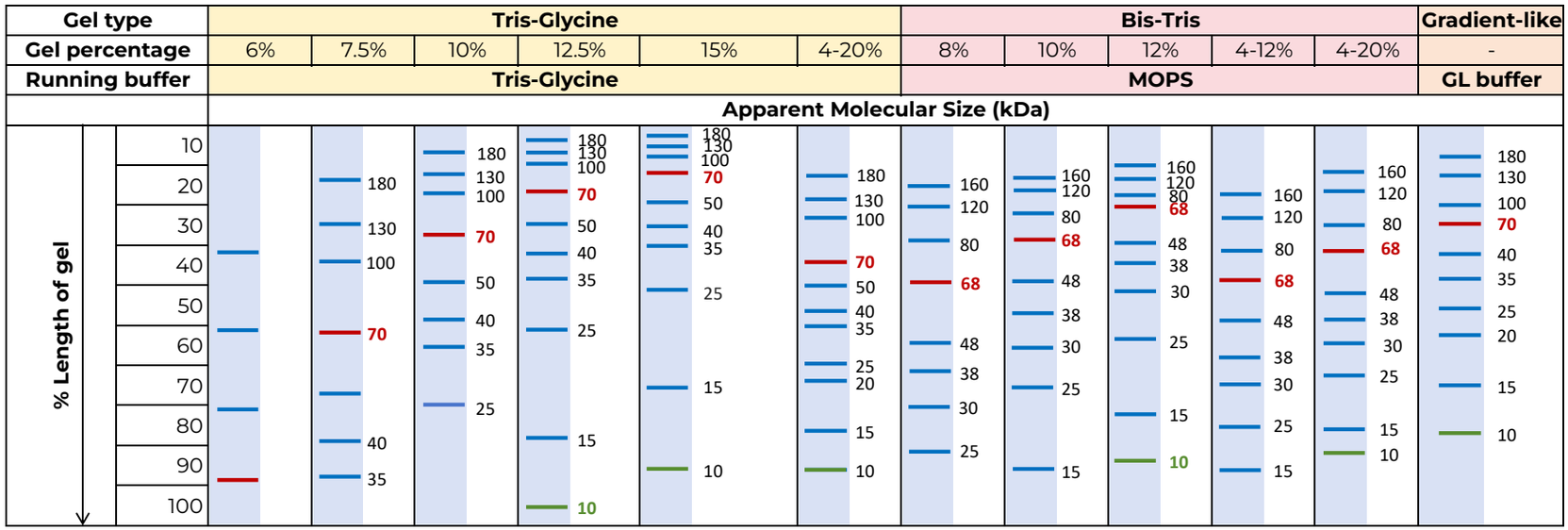
No protein tags, which minimizes non-specific antibody interactions during Western blotting.

Migration Patterns of Tricolor Prestained Protein Ladder

The following charts illustrate the migration behavior of the prestained protein ladder across different gel types and concentrations. Apparent molecular weights are shown for Tris-Glycine, Bis-Tris and Gradient-like systems, providing a practical reference for protein size estimation under commonly used electrophoresis conditions



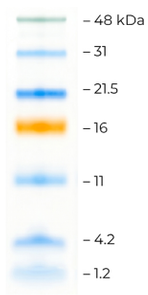
Migration Patterns of Tricolor Prestained Protein Ladder (CY5466 & CY5468)



Migration Patterns of Tricolor Prestained Protein Ladder (CY5463)

Product Summary

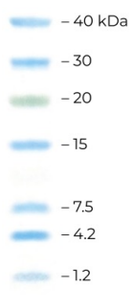
Tricolor Low Range Protein Ladder 1.2-48 kDa



CY5460

50 μL | 50 μL × 5

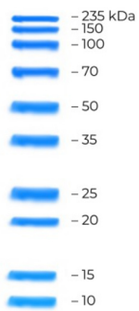
Multicolor Low Range Protein Ladder 1.2-40 kDa



CY5461

50 μL | 50 μL × 5

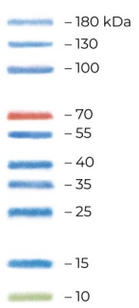
Unstained Protein Ladder 10-235 kDa



CY5462

250 μL × 2 | 250 μL × 10

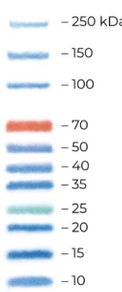
Tricolor Prestained Protein Ladder 10-180 kDa (Orange, Green & Blue)



CY5463

250 μL × 2 | 250 μL × 10

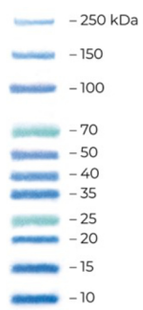
Tricolor Prestained Protein Ladder 10-250 kDa (Orange, Green & Blue)



CY5466

250 μL × 2 | 250 μL × 10

Multicolor Prestained NIR Protein Ladder 10-250 kDa



CY5468

250 μL × 2 | 250 μL × 10

Related Products

NO.	PRODUCTS	CAT NO.	SIZE
1	Stain-Free Bis-Tris Precast Gels, 8%, 12 wells	AN9321	10 pieces
2	Stain-Free Bis-Tris Precast Gels, 8%, 15 wells	AN9351	10 pieces
3	Stain-Free Bis-Tris Precast Gels, 10%, 12 wells	AN9322	10 pieces
4	Stain-Free Bis-Tris Precast Gels, 10%, 15 wells	AN9352	10 pieces
5	Stain-Free Bis-Tris Precast Gels, 12%, 12 wells	AN9323	10 pieces
6	Stain-Free Bis-Tris Precast Gels, 12%, 15 wells	AN9353	10 pieces
7	Stain-Free Bis-Tris Precast Gels, 4-12%, 12 wells	AN9324	10 pieces
8	Stain-Free Bis-Tris Precast Gels, 4-12%, 15 wells	AN9354	10 pieces
9	Stain-Free Bis-Tris Precast Gels, 4-20%, 12 wells	AN9325	10 pieces
10	Stain-Free Bis-Tris Precast Gels, 4-20%, 15 wells	AN9355	10 pieces
11	One-Step Stain Free PAGE Gel Rapid Preparation Kit (6%)	RF1521	100 Assays
12	One-Step Stain Free PAGE Gel Rapid Preparation Kit (7.5%)	RF1522	100 Assays
13	One-Step Stain Free PAGE Gel Rapid Preparation Kit (10%)	RF1523	100 Assays
14	One-Step Stain Free PAGE Gel Rapid Preparation Kit (12.5%)	RF1524	100 Assays
15	One-Step Stain Free PAGE Gel Rapid Preparation Kit (15%)	RF1525	100 Assays
16	All-in-One Low Range Protein Gel Kit (Tricine-PAGE) (10%)	RF1531	10 Assays
17	All-in-One Low Range Protein Gel Kit (Tricine-PAGE) (16%)	RF1532	10 Assays
18	Stain Free Gradient-like PAGE Gel Kit	RF1541	100 Assays
19	Tris/Glycine/SDS Buffer Instant Granules	MS8131	10 sticks(1L×10)
20	Tris/MOPS/SDS Buffer Instant Granules	MS8132	10 sticks(500mL×10)