DUAL COLOR PRESTAINED PROTEIN MARKER 100

Dual-Color Prestained Protein Marker - Red Blue

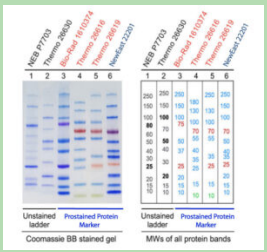
* Citation of this marker in your publication will get $25 Amazon gift card
* Sample size is available upon request

Cat. # : 22201-1
Size : 2 x 250 µL
Description: Dual‧Color Prestained Protein Marker - Red Blue
Background:
Dual-Color Prestained Protein Markers are a mixture of recombinant proteins ranging from 10 kD to 250 kD. Red bands at 25 kD and 70 kD and provide easy references for molecular weight identification. The molecular weights of the prestained markers are confirmed in Tris-Glycine SDS-PAGE system with an accuracy of >95% by using unstained protein ladders. The protein markers are highly stable with minimal band broadening during storage. Products are conveniently packaged and ready to use, with no heating, dilution or additional reducing agent required.

1. Highlights

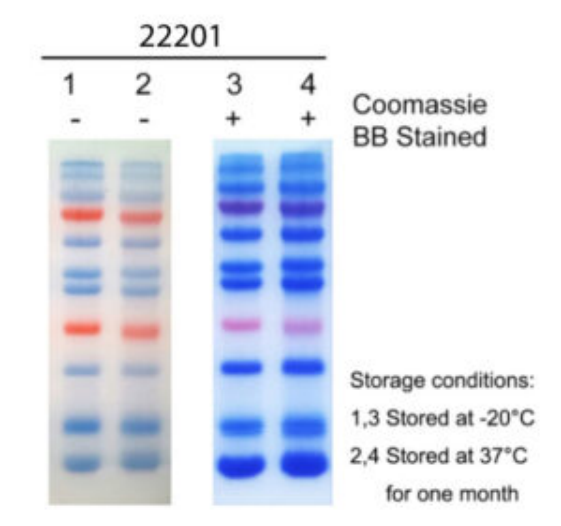
- **Broad MW range (10-250 kD)**
- **Dual-Color or Tri-Color**
- **Precise molecular weights (MWs)**
- **Clear and sharp bands**
- **Optimized membrane binding affinity**
- **High storage stability**
- **Compatible with NIR fluorescent system**

2. MW Precision



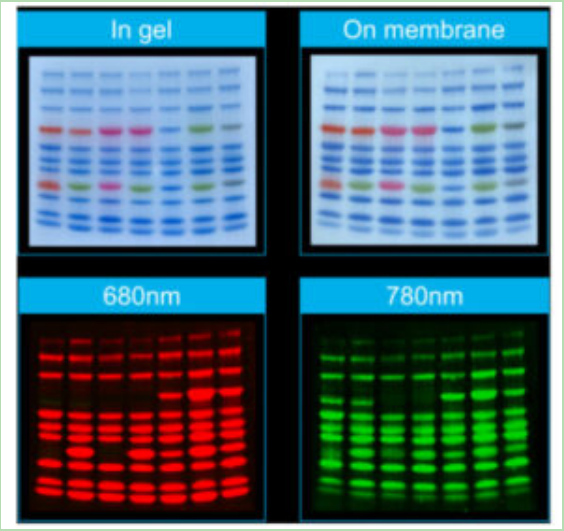
NewEast Biosciences Prestained Protein Marker is as accurate as the current non-prestained ladders on the market (Compare lanes 1 and 2 with ours lane 6), but has superior MW precision in comparison with the major market suppliers, ie. Biorad and Thermo (Compare lanes 3, 4 and 5 with ours lane 6). Biorad ladder has two inaccurate bands of 37K and 75K while Thermo prestained products have inconsistent 35K and 25K. Even more, Thermo has many inconsistencies in the molecular weight between its prestained and non-prestained protein markers.

3. Storage Stability



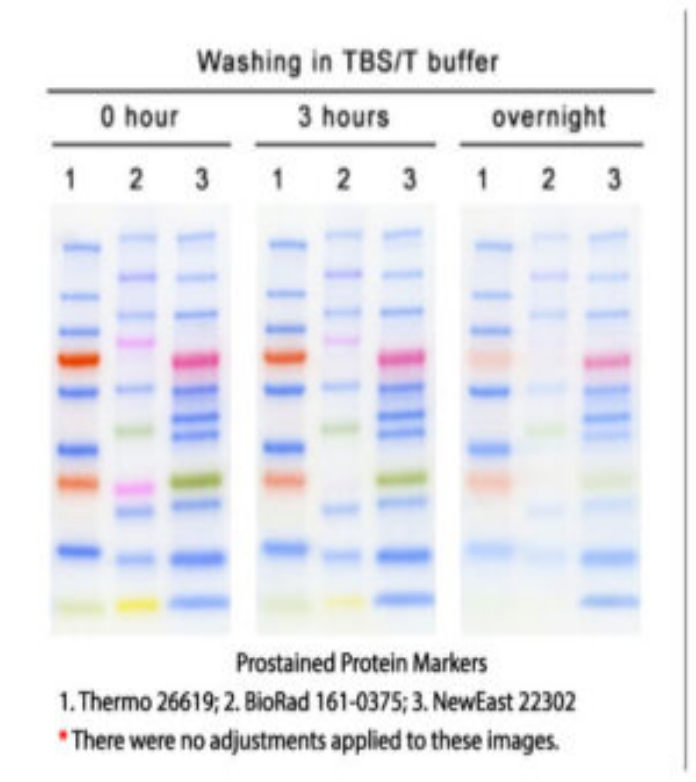
Our Prestained Protein Markers are very stable. All the markers are subject to strict stability QC before release.
The results for a comparative study under two different temperatures (-20°C and 37°C) are shown in this image. Dyes only fade slightly and very little or almost no degradation of the marker proteins occurs even under the extreme temperature (37 °C)) for one month (lanes 2 and 4).

4. Compatible with NIR Fluorescence



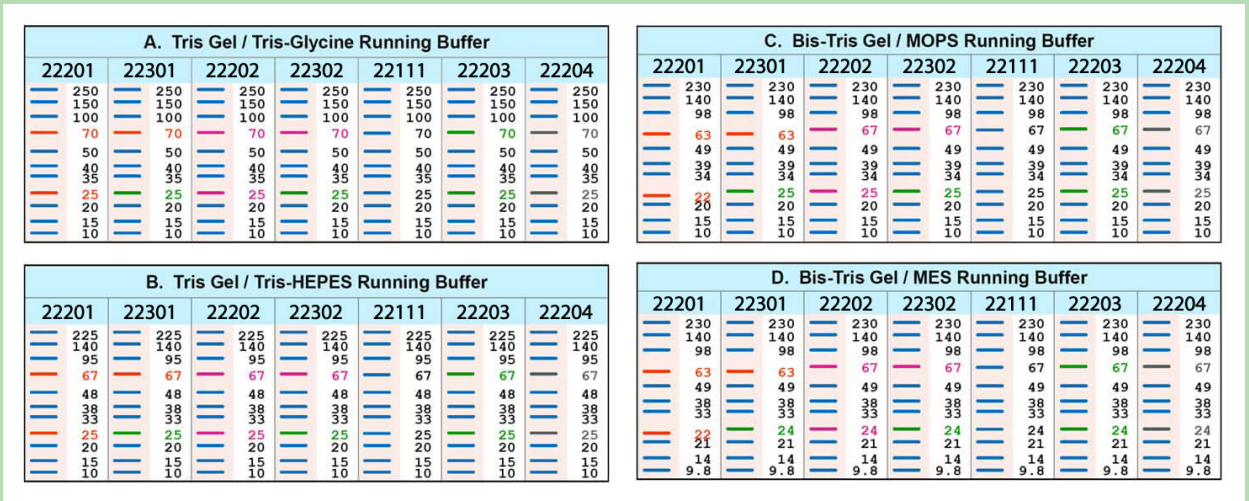
The images are produced from a single controlled experiment. All bands except orange ones are well compatible with near-infrared (NIR) fluorescent system. Note that the red band in Thermo's product cannot be scanned by NIR fluorescence either. The cat. # of protein markers (left to right) is 22201, 22301, 22202, 22302, 22101, 22203 and 22204.

5. High Membrane Binding Affinity



The membrane (PVDF or NC) after transferring during western blot experiment needs to undergo blocking, primary and secondary antibody incubation, and a multi-step washing process in between. It can take as short as 3 hours or even overnight. In a controlled experiment, our marker and ones of Thermo and Biorad are subjected to 3 hours to overnight washing with TBST washing buffer. After 3 hours, all bands of our products are very clear while the brightness of Thermo's 10 kD band has been extremely weak and Biorad's 25K band has completely disappeared, and its 10 KD band is also extremely weak. After overnight washing, only 25K and 20K of our marker are weakened, and the rest of the bands are still very clear. In comparison, Thermo's 10 KD band is almost completely disappeared, and the two red bands is very faint. More than half of the bands for Biorad product disappears or becomes very faint.

6. Migration Patterns



The migration of the prestained marker proteins during electrophoresis depends not only on the proteins themselves but also on the coupled dyes. Therefore, the markers usually show different migration patterns in different electrophoresis systems. The MWs of them are originally calibrated in Tris gel/Tris-Glycine buffer system (Table A). The shifts of the markers in other electrophoresis systems are shown in Table B-D for references. We highly recommend to specifically calibrate their MWs by unstained protein MW standard in corresponding systems other than Tris gel/Tris-Glycine buffer.

Usage: The protein ladder comes ready to use in gel loading buffer. After thawing and mixing, load approximately 3-5 µL of protein marker per lane. Do NOT heat, dilute, or add reducing agents before loading

Detection Method: Colorimetric

Molecular Weight Range: 10-250 KD

Stain Type : Red and Blue

Constituents : 62.5 mM Tris□HCl (pH 7.5 at 25°C), 1 mM EDTA, 2% (w/v) SDS, 10 mM DTT and 30% (v/v) glycerol

Storage : 4 °C for up to 1 year while -20°C and -80°C for up to 3 and 10 years, respectively. Avoid repeated freezing and thawing