# **BLUeye Prestained Protein Ladder**



Cat. No.: SP007-0600 Size: 300 µl x 2 vials

Cat. No.: SP007-0025 Size: 25 µl

## Description

The BLUeye Prestained Protein Ladder is a three-color protein standard with 12 prestained proteins covering a wide range molecular weights from 10 to 245 kilodalton (kDa). Proteins are covalently coupled with a blue chromophore except for two reference bands (one green and one red band at 25 kDa and 75 kDa respectively) when separated on SDS-polyacrylamide gel electrophoresis (SDS-PAGE) with Tris-glycine-SDS running buffer. The BLUeye Prestained Protein Ladder is designed for monitoring protein separation during, verification of Western transfer efficiency on membranes (PVDF, nylon, or nitrocellulose) and for approximating the size of proteins. The ladder is supplied in gel loading buffer and is ready to use.

#### **Features**

- > Broad range: 10-245 kDa (Tris-glycine-SDS running buffer)
- > Ready-to-use: supplied in a loading buffer for direct loading on gels
- Easy to identify: includes the ~25, ~75 kDa reference bands coupled with a green and a red dye
- > Sharp bands

#### **Applications**

- > Monitoring of protein migration during SDS-PAGE.
- > Monitoring of protein transfer onto membranes during Western blots.
- Sizing of proteins on SDS-PAGE and Western blots.

#### Storage Buffer

Approximately 0.1~0.4 mg/ml of each protein in the buffer (20 mM Trisphosphate, pH 7.5 at 25°C), 2 % SDS, 0.2 mM Dithiothreitol, 3.6 M Urea, and 15 % (v/v) Glycerol.

## **Quality Control**

The quality of the BLUeye Prestained Protein Ladder is tested on a lot-to-lot basis to ensure consistent product quality.

#### Storage

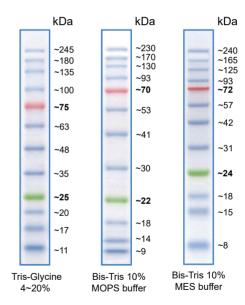
Stable for up to 2 weeks at 25°C. Stable for up to 3 months at 4°C. For long term storage, store at -20°C.

## **BLUeye Prestained Protein Ladder Protocol**

- Thaw the ladder either at room temperature or at 37-40°C for a few minutes to dissolve precipitated solids. Do not boil.
- 2. Mix thoroughly to ensure the solution is homogeneous.
- 3. Load the following volumes of the ladder on SDS-PAGE gel:
  - > 5 μl per well for mini-gels, 2.5 μl per well for blots
  - > 10 µl per well for large gels, 5 µl per well for blots

## Guide for Molecular Weight Estimation (kDa)

Migration patterns of BLUeye Prestained Protein Ladder in different electrophoresis conditions are listed below:



% of migration	Tris Glycine Gel							4-12% Bis Tris Gel		3-8% Tris Acetate	EVOgel
0.0/	6 %	8 %	10 %	12 %	14 %	16 %	4-20 %	MOPS	MES	TA	TG
0 % —		0.45	245	245 180 135	245 135 180 75 63	245 135 75 63			040		240
10 % —		245 180	180 135 100	135 100 75	75 63	48	245	230	240 165 125	005	180 135 95
20 % —		135	75	63	48	35	180 135	230 170 130	93 72	235 165	95 72
30 % ——	245	100	63	48	35	25	100	93	57	120	57
40 % ——	180	75	48	35	25	20	75 63	70	42	100 70	45
50 % —	135	63			20		48	53	31	55	
60 % ——	100		35	25	17	11	35 25	41	24 18	45	36
70 % ——	75	48	25		11		20	30	15	30 27	26 23
80 % —		25	20	17			<u>17</u> 11	22 18	8	18	19
90 % ——	63	35	17	11				14		15	10
100 % ——								<u> </u>			

#### Note:

All products are for research use only.

Caution: Not intended for human or animal diagnostic or therapeutic

<sup>1.</sup> The apparent molecular weight of each protein has been determined by calibration against an unstained protein ladder in each electrophoresis condition.

<sup>2.</sup> Supplemental data should be considered for more accurate adjustment.