# **BLUelf Prestained Protein Ladder**



Cat. No.: SP008-0600 Size: 300 µl x 2 vials

Cat. No.: SP008-0025 Size: 25 µl

#### Description

The BLUelf Prestained Protein Ladder is a three-color protein standard with 13 prestained proteins covering a wide range molecular weights from 3.5 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 BLUelf Prestained Protein Ladder is designed for monitoring protein separation during SDS-PAGE, verification of Western transfer efficiency on membranes (PVDF, nylon, or nitrocellulose) and for approximating the size of p roteins. The ladder is supplied in gel loading buffer and is ready to use. Do not heats, dilute, and add reducing agent before loading.

#### **Features**

- > Broad range: 3.5-245 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 dve
- > 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 Tris-phosphate, 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 BLUelf Prestained Protein Ladder is tested on a lot-to-lot basis to ensure consistent product quality.

#### Storage

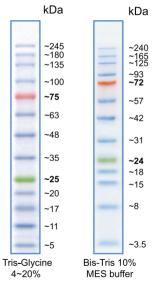
Stable for up to 2 weeks at 25°C. Stable for up to 3 months at 4°C. For long term storage, store at -20°C.

#### **BLUelf 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:
- > 15 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
- > Apply more for thicker (> 1.5 mm) or larger gel

### Guide for Molecular Weight Estimation (kDa)

Migration patterns of BLUelf 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 % —			245	245	245 135 180	245 135 75 63					240
10 % —		245 180	180 135 100	180 135	75 63	75 <sub>63</sub> 48	045	230	240 165 125		180
20 % —		135	100 75	100 75 63	48	35	245 180	230 170 130	93	235	240 180 135 95 72
30 % —	245	100	63	48	35	25	135 100	93	72 57	120	57
40 % ——	180	75	48	35	25	20	75 63	70	42	100	45
50 % —	135	63			20		48	53	31	70	
60 % ——	100		35	25	17	11	35 25	41	18	55 45	36
70 % —	75	48	25		11			30	15	30	26
80 % —		0.5	20	17		5	<u>17</u> 11	22	8	27 18	23 19
90 % —	63	35	17	11	5		5	18 14 9	3.5	15	10
100 % —								<u> </u>			3.5

#### 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.