

Cat. No. PM008-0500 Size: 500 µl Cat. No. PM008-0025 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 proteins. 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 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 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

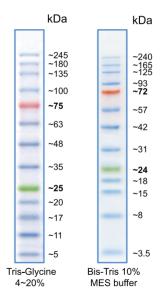
Stable for up to 2 weeks at 25°C. Stable for up to 3 months at 4°C. For long term storage, store at -20°C.

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			0.40		_240_
10 % —		245 180	180 135	180 135 100 75	135 180 135 100 75 63	48	245	230	240 165 125		180 135
20 % ——		135	100 75	63	48	35	180 135	230 170 130	93	235 165	240 180 135 95 72
30 % —	245	100	63	48	35	25	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 55	26
60 % ——	100		35	25	17	11	35	41	18	45	36
70 % —	75	48	25		11		25 20	30	15	30	26
80 % —	-75	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 % —								9			3.5

Note:

All products are for research use only.

^{1.} The apparent molecular weight of each protein has been determined by calibration against an unstained protein ladder in each electrophoresis condition.

^{2.} Supplemental data should be considered for more accurate adjustment.