

# Prestained Protein Ladder (245 kDa)

## *For research use only*

**Broad range:** 10-245 kDa

**Ready to use:** Supplied buffer for direct gel loading

**Convenient:** Includes Protein Loading Dye (2 ml, 5X)

**Easy identification:** Sharp bands with 25 and 75 kDa reference bands (green/red dye)

**Storage:** -20°C for 24 months, 4°C for 3 months

**Optional Requirements:** DTT (2M)

**Applications:** Monitor protein migration/sample in SDS-PAGE, Monitor protein transfer onto membranes during Western Blotting, Sizing of proteins on SDS-PAGE and Western blots

## Introduction

Prestained Protein Ladder (245 kDa) is a three-color protein standard with 12 pre-stained proteins covering a wide range of molecular weights for 10 to 245 kDa. Proteins are covalently coupled with a blue chromophore except for two reference bands (one green and one red band) when separated on SDS-PAGE (Tris-glycine buffer). The Ladder is designed for monitoring protein separated during SDS-PAGE, verification of Western transfer efficiency on membranes (PVDF, nylon or nitrocellulose) and for approximate sizing of proteins. The ladder is supplied in a gel loading buffer and is ready to use, without requiring heating, diluting, or a reducing agent prior to loading.

## Quality Control

5 µl of Prestained Protein Ladder (245 kDa) resolves 12 bands in 4-20% SDS-PAGE (Tris-glycine buffer) and after Western blotting to nitrocellulose membrane.

## Kit Contents

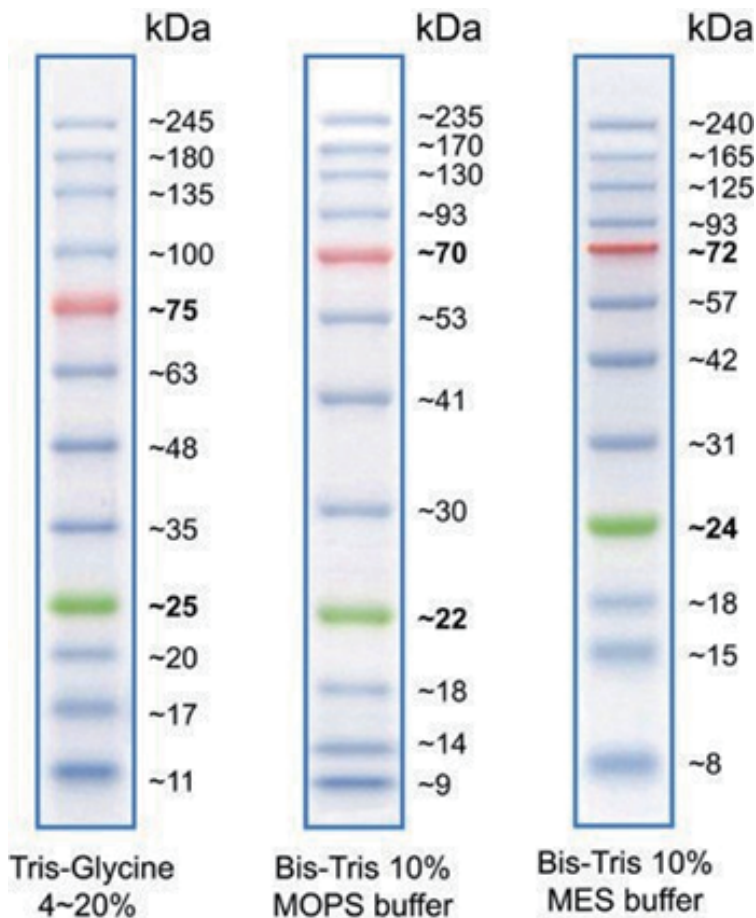
Components	PL0245
Prestained Protein Ladder (245 kDa)	500 µl
Protein Loading Dye (5x)	2 ml

Approximately 0.1-0.4 mg/ml of each protein in buffer {20 mM Trisphosphate, pH7.5 at 25°C, 2% SDS, 1 mM 2-Mercaptoethanol, 3.6 M Urea and 15% (v/v) glycerol} and Protein Loading Dye (2 ml, 5X)

Protein Ladder Loading	Loading Dye Sample Preparation
Thaw the ladder either at room temperature or at 37-40°C for a few minutes to dissolve precipitated solids. <b>Do not boil.</b>	<ul style="list-style-type: none"><li>Dissolve any precipitated solids in the Protein Loading Dye at 37-40°C.</li><li>Thaw DTT at room temp. (optional)</li></ul>
Mix thoroughly to ensure the solution is homogeneous.	
Load the following ladder volumes for SDS-PAGE: <ul style="list-style-type: none"><li>5 µl/well for mini-gels, 3 µl/well for general western transferring.</li><li>10 µl/well for large gels, 6 µl/well for general western transferring.</li></ul>	<ul style="list-style-type: none"><li>Add 2 µl of 5X Protein Loading Dye into a clean microcentrifuge tube.</li><li>Add 0.5 µl of 2M DTT. (optional)</li><li>Add 8 µl of protein sample solution.</li><li>Incubate at 100°C for 3-5 minutes.</li><li>Centrifuge briefly and directly add to SDS-PAGE.</li></ul>

## Guide for Molecular Weight Estimation (kDa)

Figure 1. Migration patterns in different electrophoresis conditions using the Prestained Protein Ladder (245 kDa).



Note: The apparent molecular weight of each protein (kDa) has been determined by calibration against an unstained protein ladder in each electrophoresis condition. Supplementary data should be considered for more accurate adjustment. All products are for research use only and are not intended for human or animal diagnostic or therapeutic uses.

### Order Information

Prestained Protein Ladder V (500 µl)	PL005
Prestained Protein Ladder 245 kDa (500 µl)	PL0245
Protein Loading Dye (2 ml, 5X)	PLD001
50 bp DNA Ladder	DL008
100 bp DNA Ladder (50 µg, 500 µl)	DL007
1 Kb DNA Ladder (50 µg, 500 µl)	DL006
DNA Loading Dye (10 ml, 100 ml, 6X)	LD010/ 100