# AceColor™ prestained Protein marker (25-300 kDa)

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| **Cat. No.** | A1057 |
| **Pack Size** | 2*250μL/Tube, 100mL/Bottle, 1L/Bottle |
| **Appearance** | Dark blue solution |
| **Storage Buffer** | 20mM Tris-H3PO4(pH7.5), 2mM EDTA, 1.5% (W/V) SDS, 15% (W/V) Glycerol, 4M Urea, 3mM DTT, 0.1% (V/V) Proclin300 |
| **Quality Control** | Tested in SDS-PAGE and western blotting |
| **Shelf life** | Stable at -20°C for 36 months ; 4°C for 3 months ; 25°C for 4 weeks |

## Description

AceColor™ Prestained Protein Ladder is a ready-to-use formulation containing nine prestained proteins ranging from 25 to 300 kDa, including distinct reference bands: an orange band at 72 kDa and a green band at 25 kDa. It is specifically designed for monitoring protein separation during SDS-PAGE, verifying protein transfer during Western blotting onto PVDF, nylon, or nitrocellulose membranes, and estimating approximate protein sizes. The ladder is provided in a convenient gel-loading buffer, requiring no heating, dilution, or addition of reducing agents before use. Lot-to-lot variation in the apparent molecular weights of prestained proteins is consistently less than 3%.

## Important Information

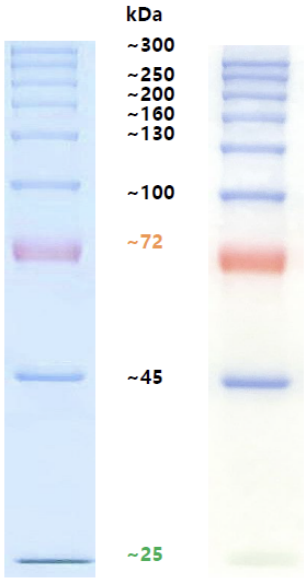
1. Prestained proteins may exhibit variable migration patterns depending on the SDS-PAGE buffer system used. For accurate estimation of molecular weights, calibrate the prestained ladder against unstained protein standards run simultaneously under identical conditions. Refer to the provided table for migration patterns across different electrophoresis conditions.
2. In gels with low acrylamide concentration (<10%), low-molecular-weight proteins in the ladder may migrate close to or with the dye front.
3. **AceColor™** Prestained Protein Ladder is suitable for Western blotting applications and compatible with commonly used membranes, including PVDF, nylon, and nitrocellulose.
4. Proteins larger than 100 kDa may require extended transfer times or increased voltages during the Western blot transfer step.

## Preparation

1. Thaw the ladder at room temperature for several minutes until any precipitates are fully dissolved. Do not boil.
2. Mix gently but thoroughly to ensure a homogeneous solution.
3. Load the ladder onto an SDS-polyacrylamide gel according to the following guidelines:
   - Mini gels: 5 μL per well
   - Large gels: 10 μL per well
4. Use identical volumes for Western blotting applications.
5. The recommended loading volumes apply to gels with a thickness of 0.75–1.0 mm. For gels of 1.5 mm thickness, double the loading volumes.

## Migration patterns of Prestained Protein Ladder

The apparent molecular weight of each protein (kDa) has been determined by calibration against an unstained protein




Gel 12.5% Tris-Glycine Blot

| Gel type | Tris-Glycine | | | Tris-Acetate | | Bis-Tris | |
|---|---|---|---|---|---|---|---|
| Gel concentration | 6% | 7% | B4-20% | 6% | T3-8% | T4-12% | T4-12% |
| Running buffer | Tris-Glycine | | | Tris-Acetate | | MES | MOPS |
| | Apparent Molecular Weights, kDa | | | | | | |
| % length of gel 10 | 300 250 200 160 130 100 72 45 25 | 300 250 200 160 130 100 72 45 25 | 300 250 200 160 130 100 70 45 25 | 300 250 200 160 130 100 65 45 25 | 300 250 200 160 130 100 65 45 25 | 300 250 200 160 130 100 65 45 25 | 300 250 200 160 130 100 65 45 25 |
| 20 | | | | | | | |
| 30 | | | | | | | |
| 40 | | | | | | | |
| 50 | | | | | | | |
| 60 | | | | | | | |
| 70 | | | | | | | |
| 80 | | | | | | | |
| 90 | | | | | | | |
| 100 | | | | | | | |

## Product Use Limitation

For Research Use Only. Not for Diagnostic Purposes.