





# DESCRIPTION

ExactPro Broad Range (5-245kDa) Prestained Protein Ladder contains 13 prestained recombinant proteins that cover a wide range of molecular weights from 5kDa – 245kDa. An orange reference band of ~75kDa and a green reference band of ~25kDa provides easy monitoring of protein separation.

The ladder is ready-to-use. No further dilution, addition of a reducing agent or heating is required.

# Storage Buffer

20mM Tris-H<sub>3</sub>PO<sub>4</sub> (pH 7.5 @ 25°C) 15% (v/v) Glycerol 2% (w/v) SDS 10mM DTT 3.6mM Urea

# **Quality Control**

 $5\mu$  of ExactPro Broad Range (5-245kDa) Prestained Protein Ladder provide 13 bands of equal intensities in 4 – 20% gradient SDS-PAGE (Tris-Glycine buffer) and after electrotransfer onto PVDF membrane.

# Applications

Used in SDS-PAGE and Western blots for approximation of protein sizes, and to locate a protein of interest for excision from an unstained preparative gel.



### Recommendations

- Thaw ladder at room temperature to dissolve precipitated solids.
  Do not boil.
- Mix solution gently to ensure that it is homogeneous.
- Load ladder into SDS-PAGE gel or Western blot using these volumes (based on gel thickness of 0.75 – 1.0mm).
  - 3µl per loading on 15-well mini-gel
  - 5µl per loading on 10-well mini-gel
  - $\circ$  1.5 2.5µl per loading for general Western transferring
- Double the loading volume for thicker or larger gel.

### Remarks

- Each lot of ExactPro Broad Range (5-245kDa) Prestained Protein Ladder is calibrated with unstained protein ladder and ExactPro Broad Range (5-245kDa) Prestained Protein Ladder calculated apparent molecular weights are as the picture.
- Prestained proteins can have different mobilities in various SDS-PAGE-buffer system. However, they are suitable for approximate molecular weight determination when calibrated against unstained standards in the same system.
- In 8% or 10% gels, low molecular weight proteins may migrate with the dye front.
- Suitable for use in Western blotting with all common membranes.
- Longer transfer times or higher transfer voltages may be required for Western blotting of proteins larger than 100kDa.