

EXREsolve™ Prestained Protein Markers 25-300 kDa

Catalog Number: EXBR020



For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

Product Description

The EXREsolve™ Prestained Protein Markers product is composed of 9 purified pre-stained proteins with a molecular weight range of 25 kDa to 300 kDa. The individual protein markers are 25 kDa, 45 kDa, 72 kDa, 100 kDa, 130 kDa, 160 kDa, 200 kDa, 250 kDa and 300 kDa. The 25 kDa marker is green, the 72 kDa marker is orange-red, and the other 7 markers are blue. This product is suitable as a protein molecular weight standard for SDS-PAGE or Western blot and is compatible with PVDF, nylon, and nitrocellulose membranes. The prestained markers enable direct observation of the protein electrophoresis status and estimation of protein transfer during Western Blot.

The product is a ready-to-use liquid that does not require heating, dilution or additional reducing agents before loading sample.

Available sizes: 1 Pack (250 uL) or 5 Pack (5 x 250 uL)

Limitations

- For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

Precautions

- Always wear appropriate protective clothing and follow safe laboratory procedures.
- The product contains a small amount of DTT.

Storage

- Shipped on blue ice.
- Store at -20°C for up to 12 months. **Avoid repeated freeze-thaw cycles.**
- **Storage Buffer:** 62.5 mM Tris-H₃PO₄ (pH 7.5 at 25°C), 2% (w/v) SDS, 2 mM EDTA, 0.02% (v/v) ProClin™300, 33% (v/v) glycerol, 5mM DTT.

Protocol

1. Thaw at room temperature for a few minutes prior to use. **Do not boil.**
2. Load the following recommended volumes on an SDS-polyacrylamide gel:
 - 5 uL per well for mini gel (0.75-1.0 mm thickness)
 - It is recommended that each laboratory determine the optimal volume based on the experimental protocol.
 - Volumes may need to be increased for low-percentage gels (<8%), large gels, or gel thickness ≥ 1.5 mm.

Note:

- Transfer times of high molecular weight proteins (>100 kDa) during Western blotting may need to be increased.
- The low molecular weight protein markers may migrate with the dye front in low-percentage gels (<8%).
- The mobility of the prestained protein markers may be affected by various buffers and gel concentrations (See Figure 2). To achieve suitable approximation of molecular weight determination, it is recommended to calibrate against unstained standards using the same conditions.
- It is not recommended to add SDS to the transfer solution. If SDS must be used, it is recommended to not exceed 0.02-0.04%.

Figure 1. EXREsolve™ Prestained Protein Markers 25-300 kDa Typical Data

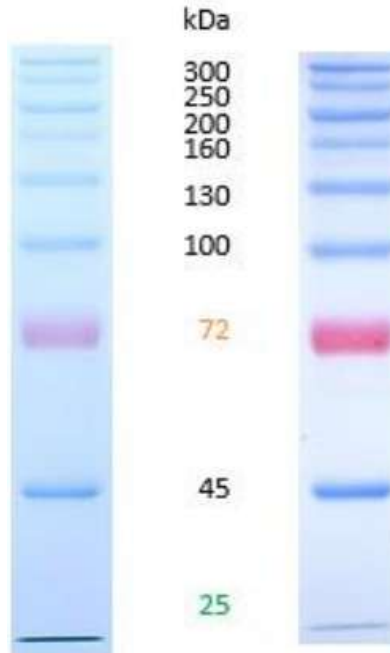


Figure 2. Example of EXREsolve™ Prestained Protein Markers 15-130 kDa Mobility in Various Conditions

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	300, 250, 200, 160, 130, 100	300, 250, 200, 160	300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	20	300, 250	300, 250, 200, 160, 130	300, 250, 200, 160, 130, 100	300, 250, 200, 160	300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	30	200, 160	130, 100	100, 70	130, 100	300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	40	130	100	70	100	300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	50	100	72	45	65	300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	60					300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	70	72		25	45	300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	80		45			300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	90	45				300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	
	100	25	25		25	300, 250, 200, 160, 130, 100	300, 250, 200, 160, 130, 100	

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