



P7709S

175 mini	-gel lanes	Lot: 0231211	
1.05 ml	Store at -20°C	Exp: 11/13	

BioLabs

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Description: ColorPlus Prestained Protein Marker, Broad Range includes a mixture of purified proteins covalently coupled to colored dye that resolves to 8 bands of even intensity, including one orange and one green reference band for easy orientation when electrophoresed (1). The covalent coupling of the dye to the proteins affects their electrophoretic behavior in SDS-PAGE gels relative to unstained proteins (1). For precise molecular weight determinations, use NEB's unstained Protein Marker, Broad Range (NEB #P7702) or Protein Ladder (NEB #P7703) in addition to the prestained marker.

ColorPlus Prestained Protein Marker, Broad Range (7–175 kDa)



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Storage Note: To maximize shelf-life, marker should be boiled upon receipt and aliquotted into single-use tubes. Store at -20°C.

Suggested Protocol for Loading a Sample (2):

- Mix ColorPlus Protein Marker. Bring the desired amount of the ColorPlus Prestained Protein Marker over to a separate tube. For blotting: use 6 µl for mini-gels and 12 µl for full length gels. For visualizing during electrophoresis: use 15 µl for mini-gels and 30 µl for full length gels.
- 2. Heat the marker to 95–100°C for 3–5 minutes. If the marker has been already boiled upon receipt, don't heat again, directly go to Step 3.
- After a quick microcentrifuge spin, load directly on to a gel. To ensure uniform mobility, load an equal volume of 1X reducing SDS Loading Buffer into any unused wells.

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ColorPlus Prestained Protein Marker, Broad Range

-	- 80)	
-	- 58	3	
-	- 46	6	
-	— 30)	
-	- 23	3	
-	- 17	7	
_	-		

10-20%

SDS PAGE

kDa

- 175

- 80

- 58

- 46

- 30

- 23

- 17

- 7

kDa

- 175

DRATEIN	0011005	APPARENT
PRUIEIN	SUURCE	WW (KDa)
MBP-β-galactosidase ¹	E. coli	175
MBP-truncated- β -galactosidase ¹	E. coli	80
MBP-CBD ¹	E. coli	58
CBD-Mxe Intein-2CBD ¹	E. coli	46
CBD- <i>Mxe</i> Intein ¹	E. coli	30
CBD- <i>E. coli</i> par ¹	E. coli	23
Lysozyme	chicken egg white	17
Aprotinin	bovine lung	7

¹ MBP = maltose-binding protein. MBP-β-galactosidase = fusion of MBP and β-galactosidase. MBP-truncated-β-galactosidase = fusion of MBP and a truncated β-galactosidase. MBP-CBD = fusion of MBP and chitin binding domain.

CBD-Mxe Intein-2CBD = fusion of the chitin binding domain, Mxe Intein followed by two chitin binding domains.

CBD-E. coli par = fusion of the chitin binding domain followed by and E. coli parvulin-like protein.

Note: Apparent molecular weights of every lot are determined on Invitrogen Novex 10–20% Tris-glycine SDS PAGE gels using NEB's Protein Ladder (NEB #P7703).

(See other side)

CERTIFICATE OF ANALYSIS

ColorPlus Prestained Protein Marker, Broad Range

		APPARENT
PROTEIN	SOURCE	MW (kDa)
MBP-β-galactosidase ¹	E. coli	175
MBP-truncated-β-galactosidase ¹	E. coli	80
MBP-CBD ¹	E. coli	58
CBD-Mxe Intein-2CBD1	E. coli	46
CBD-Mxe Intein ¹	E. coli	30
CBD- <i>E. coli</i> par ¹	E. coli	23
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MBP-CBD = fusion of MBP and chitin binding domain.

CBD-*Mxe* Intein-2CBD = fusion of the chitin binding domain, *Mxe* Intein followed by two chitin binding domains.

CBD-E. coli par = fusion of the chitin binding domain followed by and E. coli parvulin-like protein.

10–20% SDS PAGE

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(See other side)

Apparent Molecular Weights for Various Gel Types

10–20% Tris-glycine	10–20% Tris-tricine	4–12% Bis-Tris (MOPS)	4–12% Bis-Tris (MES)	3–8% Tris-acetate
175	141	138	126	148
80	66	66	63	69
58	48	48	45	52
46	35	35.5	35	40.5
30	27	25	25	n/a
23	24	17	17	n/a
17	19	12.5	12	n/a
7	13	9	7.5	n/a

Note: Apparent molecular weight values for prestained protein markers can be different when run on different gel types.

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References:

- 1. Laemmli, U.K. (1970) *Nature* 227, 680.
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