Protein Marker, Broad Range, (2–212 kDa)

1-800-632-7799
info@neb.com
www.neb.com

P7702S 04813031403 1

P7702S

150 mini-gel lanes **Lot: 0481303**

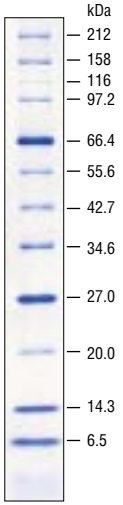
1.125 ml **Store at –20°C** **Exp: 3/14**

Description: Protein Marker, Broad Range is a mixture of purified proteins with known amino acid sequences. They are resolved to 13 sharp bands when analyzed by SDS-PAGE (Tris-Glycine) and stained with Coomassie Blue R-250 (1). Two bands (BSA, MW 66.4 kDa and Triosephosphate isomerase, MW 27.0 kDa) are at double intensity to serve as reference points.

Contents: 0.1–0.2 mg/ml of each protein in 70 mM Tris-HCl (pH 6.8 @ 25°C), 33 mM NaCl, 1 mM Na_2EDTA, 2% (w/v) SDS, 40 mM DTT, 0.01% (w/v) bromophenol blue and 10% glycerol.

Suggested Protocol for Loading a Sample (2):

1. Mix Protein Marker. Bring the desired amount of the Protein Marker (7 µl for mini-gels and 15 µl for full length gels) over to a separate tube.
2. Heat the Marker to 95–100°C for 3–5 minutes.
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.



10–20% SDS-PAGE
Insulin chains are unresolved by SDS-PAGE (Tris-Glycine).

References:

1. Laemmli, U.K. (1970) *Nature* 227, 680.
2. Sambrook, J., Fritsch, E.F. and Maniatis, T. (1989) *Molecular Cloning: A Laboratory Manual*, (2nd ed.). Cold Spring Harbor: Cold Spring Harbor Laboratory Press.

Protein Marker, Broad Range

PROTEIN	SOURCE	SWISS-PROT ACCESSION #	CALCULATED MW (Da)
Myosin	rabbit muscle		212,000
MBP-β-galactosidase[1]	*E. coli*		158,194
β-Galactosidase	*E. coli*	P00722	116,351
Phosphorylase b	rabbit muscle	P00489	97,184
Serum albumin	**bovine**	**P02769**	**66,409**
Glutamic dehydrogenase	bovine liver	P00366	55,561
MBP2*[1]	*E. coli*		42,710
Thioredoxin reductase	*E. coli*		34,622
Triosephosphate isomerase	*E. coli*		**26,972**
Trypsin inhibitor[2]	soybean	P01071	(20,040-20,167)
Lysozyme	chicken egg white	P00698	14,313
Aprotinin[3]	bovine lung	P00974	6,517
Insulin A[4]	bovine pancreas	P01317	3,400
B chain[4]	bovine pancreas	P01317	2,340

[1] MBP2*= maltose-binding protein. MBP-β-galactosidase = fusion of MBP and β-galactosidase. MW determined at NEB.

[2] Trypsin inhibitor (soybean) is a mixture of three isoforms: A-20,094 Da; B-20,040 Da; C-20,167 Da.
These isoforms migrate as one unresolved band using Tris-Glycine gels and as a doublet using Tris-Tricine gel [Schagger, H. and Von Jagow, G. (1987) *Anal. Biochem.* 166, 368–379].

[3] Protein sequence from bovine pancreatic trypsin inhibitor.

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