Reference

1. Schägger, H., and von Jagow, G., *Anal. Biochem.,* **166,** 368-379 (1979).

Ordering Information

Catalog Number	Product Description
Premixed Buffers	
161-0739	**Tricine Sample Buffer,** 30 ml
161-0744	**10x Tris/Tricine/SDS,** 1 L
Prestained Standards	
161-0325	**Kaleidoscope Polypeptide Standards,** 500 µl
161-0324	**Kaleidoscope Prestained Standards,** 500 µl
161-0305	**Prestained SDS-PAGE Standards,** Low, 500 µl
161-0309	**Prestained SDS-PAGE Standards,** High, 500 µl
161-0318	**Prestained SDS-PAGE Standards,** Broad, 500 µl
Molecular Weight Standards	
161-0326	**Polypeptide SDS-PAGE Standards,** 200 µl
161-0304	**SDS-PAGE Standards,** Low, 200 µl
161-0303	**SDS-PAGE Standards,** High, 200 µl
161-0317	**SDS-PAGE Standards,** Broad, 200 µl
161-0314	**Silver Stain SDS-PAGE Standards,** Low, 200 µl
161-0315	**Silver Stain SDS-PAGE Standards,** High, 200 µl

Bio-Rad Laboratories, 2000 Alfred Nobel Drive, Hercules CA 94547

4006046 Rev B

Polypeptide SDS-PAGE Molecular Weight Standards

Catalog Number 161-0326

Product shipped at room temperature.
Store at -20 °C upon arrival.

BIO-RAD

Specifications

Contents	Approximately 900 µg of each protein blended to give bands of equal intensity on SDS polyacrylamide gels run according to Schägger and von Jagow[1] and stained with Coomassie blue G-250 stain.
Storage buffer	40% glycerol, 100 mM Tris-HCl, 4 mM EDTA, 3 mM NaN_3 pH 8.5
Volume	200 µl concentrated solution
Storage	-20 °C
Shipping conditions	Room temperature
Shelf life	1 year at -20 °C
Applications per vial	400
Recommended gel percentage*	16.5% Tris-Tricine 10-20% Tris-Tricine

***Note:** These standards can be run on other percentage gels, but all proteins may not be visible. Lower percentage gels or Tris-glycine buffer systems may cause the low molecular weight proteins to migrate with or in front of the dye front.

Protein Molecular Weights (daltons)

Protein	Molecular Weight
Triosephosphate isomerase	26,625
Myoglobin	16,950
α-Lactalbumin	14,437
Aprotinin	6,512
Insulin b chain, oxidized	3,496
Bacitracin	1,423

Protocol

Dilute standards 1:20 in Tris-Tricine Sample Buffer.* Heat for 5 minutes at 95 °C. Cool and load 10 µl/well for full length gels (16-20 cm) or 5 µl/well for mini gels.

Tris-Tricine Sample Buffer

Deionized water	4.0 ml
0.5M Tris-HCl, pH 6.8	2.0 ml
Glycerol	2.4 ml
10% SDS	1.0 ml
ß-mercaptoethanol	0.2 ml
0.5% Coomassie G-250	0.4 ml
	10.0 ml

Use of Sample Buffer with insufficient or old ß-mercaptoethanol may result in doublets or diffuse bands.

Coomassie Blue G-250 Staining Solution

Acetic acid	100 ml
Coomassie Blue G-250	0.25 g
Deionized water	900 ml

Note: Use stain only once.

Coomassie Blue G-250 Destaining Solution

Acetic acid	100 ml
Deionized water	900 ml

Protein References

Protein	Reference
Rabbit triosephosphate isomerase	Corran, P. H. and Waley, S. G., *Biochem. J.*, **139**, 1 (1974).
Equine myoglobin	Black, J. A. and Leaf, G., *Biochem. J.*, **96**, 693 (1965).
Bovine α-Lactalbumin	Brew, K., Vanaman, T. C., and Hill, R. L., *J. Biol. Chem.*, **242**, 16 (1967).
Bovine aprotinin	Kassell, B. and Laskowski, M., *Biochem. Biophys. Res. Comm.*, **20**, 463 (1965).
Bovine insulin, b chain, oxidized	Porter, R. R., *Biochem.*, **53**, 320 (1953).
Bacitracin	Merck Index, 11, 948.

Gel Staining

Approximately 0.5 µg of protein per band is needed for detection when gels are stained with Coomassie Blue G-250. Place the gels in polypeptide fixative solution for 30 minutes. Stain in Coomassie blue G-250 Staining Solution for 1 hour. Destain in Coomassie Blue G-250 Destaining Solution for 3 x 15 minutes washes or until the desired destain is reached.

Note: Peptides are not completely fixed and may diffuse out of the gels if fixing and staining times are greatly exceeded. We recommend a maximum fix time of 45 minutes and a maximum staining time of 1.5 hours.

Polypeptide Fixative Solution

Methanol	400 ml
Acetic acid	100 ml
Deionized water	500 ml

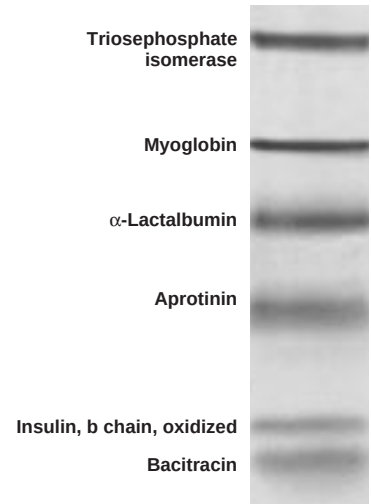

Fig. 1. SDS polyacrylamide gels run in the Mini-PROTEAN® II cell according to the method of Schagger and von Jagow. Polypeptide SDS-PAGE standards run on a 16.5% Tris-Tricine gel, stained with Coomassie G-250.