Lonza Rockland, Inc.
www.lonza.com
scientific.support@lonza.com
Scientific Support: 800-521-0390
Document # 00522217-0911-02
Rockland, ME 04841 USA

ProSieve™ QuadColor™ protein marker, 4.6 kDa – 300 kDa

Instructions for use

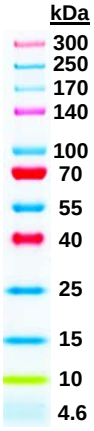
Introduction

The ProSieve™ QuadColor™ protein marker is a mixture of 12 recombinant, highly purified proteins with molecular weights of 4.6, 10, 15, 25, 40, 55, 70, 100, 140, 170, 250, and 300 kDa. The proteins are individually prestained using four different dyes, producing a brightly colored ladder with an easy-to-remember pattern. The ProSieve™ QuadColor™ protein marker is ready-to-use: no heating, further dilution or addition of a reducing agent is required before use.

ProSieve™ QuadColor™ protein marker is ideal for several applications.

- Monitoring of protein migration during SDS-PAGE[1].
- Verifying Western transfer efficiency[2-4].
- Approximate sizing of proteins on SDS-polyacrylamide gels and Western blots.

Typical band sizes*



* Some band sizes may vary from lot to lot. Lot specific reference card is supplied with each marker.

Contents

Cat. No. 00193837
ProSieve™ QuadColor™ protein marker, 2 x 250 µl (50 minigel applications @ 10 µl per well or 25 large gel applications @ 20 µl per well)

Storage buffer
62.5 mM Tris-H_3PO_4 (pH 7.5), 1 mM EDTA, 2% (w/v) SDS, 10 mM DTT, 1 mM NaN_3 and 33% (v/v) glycerol.

Store at -20°C for 2 years or at 4°C for 3 months

Protocol

1. Thaw the ladder at room temperature for a few minutes to dissolve precipitated solids. Do not boil!
2. Mix gently, but thoroughly, to ensure that the solution is homogeneous.
3. Load the following volumes of the marker on an SDS-polyacrylamide gel.

	For Gel Analysis	For Blot Analysis
Minigel*	5-10 µl	5-10 µl
Large gel	20 µl	10 µl

4. Use the same volumes for Western blotting.

* Optimal volume dependent on well size.

NOTES

- Low molecular weight proteins may migrate with the dye front on low concentration gels (e.g. 7.5% & 10%).
- Longer transfer times or higher transfer voltages may be required for Western blotting of large (>100 kDa) proteins.
- For precise protein molecular weight determination use ProSieve™ unstained protein markers.
- Lot specific calculated apparent MW, kDa on 4-20% tris-glycine SDS-PAGE

References

1. Laemmli, U.K. (1970). Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature*, 227: 680-685.
2. Burnette, W.N. (1981). "Western blotting": electrophoretic transfer of proteins from sodium dodecyl sulfate – polyacrylamide gels to unmodified nitrocellulose and radiographic detection with antibody and radioiodinated protein A. *Anal. Biochem.*, 112 (2): 195-203.
3. Towbin, H., et al. (1979). Electrophoretic transfer of proteins from polyacrylamide gels to nitrocellulose sheets: procedure and some applications. *PNAS*, 76: 4350-4354.
4. Kurien, B.T. and Scofield, R.H. (2003). Protein blotting: a review. *J. Imm. Meth*., 274: 1-15.

Product safety

For details regarding product safety, see material safety data sheet (MSDS); call +1 (800) 638-8174 for extra copies of the MSDS. Emergency after hours, call collect +1 (303) 595-9048.

Manufactured for Lonza Rockland, Inc.

For research use only.
Not for use in diagnostic procedures.