Amersham ECL Rainbow Marker

Product Specification Sheet

Introduction

Product code

RPN800E

About

M_r = 12 000 - 225 000.

Important

Read these instructions carefully before using the products.

Intended use

The products are intended for research use only, and shall not be used in any clinical or *in vitro* procedures for diagnostic purposes.

Safety

For use and handling of the products in a safe way, refer to the Safety Data Sheets.

CAUTION

For use with radioactive material.

This product may be used with radioactive material. Please follow the manufacturer's instructions relating to the handling, use, storage and disposal of such material.

Note: *This product is used in conjunction with gel electrophoresis. Please follow the manufacturer's instructions relating to the handling and use of the equipment and materials.*

Storage

Store at -15°C to -30°C. Stable for at least 3 months when stored under recommended conditions.

Concentration

Approx. 2 mg/mL of protein.

Pack size

250 µl, sufficient for for 50 minigel loadings when used under recommended conditions.

Description

Amersham™ ECL™ Rainbow™ Marker - Full Range is a mixture of individually colored proteins of defined size from Cytiva. Purified proteins are combined to produce bands of equal color intensity and even spacing when separated on a polyacrylamide gel as described by Laemmli (1), Schagger and von Jagow (2), Swank and Munkres (3), Weber and Osborn (4).

Form

Supplied ready to use in 30% glycerol and sample buffer containing mercaptoethanesulphonic acid (MESNA) as reducing agent (5).

Molecular weight (Da)	Color
225 000	Blue
150 000	Red
102 000	Green
76 000	Yellow
52 000	Purple
38 000	Blue
31 000	Orange
24 000	Green
17 000	Blue
12 000	Red

Usage

Recommended minimum loadings are as follows:

8 × 10 cm gels: 5 µl of Amersham ECL Rainbow Marker - Full Range.

20 × 20 cm gels: 10 µl of Amersham ECL Rainbow Marker - Full Range.

Step	Action
1	Remove the marker from storage at -15°C to -30°C and allow to equilibrate to room temperature. A precipitate of SDS may form on storage at -15°C to -30°C. If necessary briefly warm the solution at 37°C to dissolve the precipitate.
2	Mix well and load the required volume of markers directly onto the gel.

More technical help, tips, and best practices can be found in the handbook *Western Blotting Principles and Methods* from Cytiva (Product code 28999897).

Typical result RPN800E

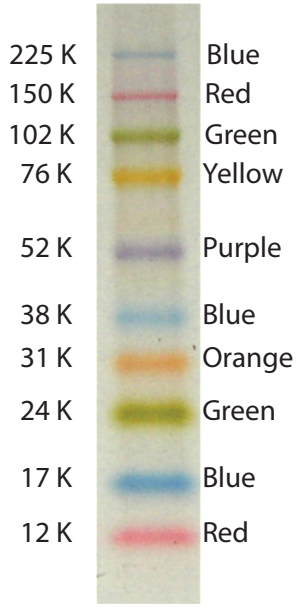

Fig 1. 4% to 20% Tris-Glycine gradient SDS-PAGE gel. Electrophoresis performed for 90 minutes at 125 V.

Quality control

Each batch of Amersham ECL Rainbow Marker - Full Range is assessed for color intensity and band integrity on a 4% to 20% Tris-Glycine gradient SDS-PAGE mini-gel.

24 k Green band

In some gel/buffer systems the mobility of this band may differ from that quoted using a Tris/Glycine/SDS buffer.

Measurment of protein sizes

The sizes of the labeled proteins have been determined by interpolation from a standard curve of Rf values of known molecular weight recombinant proteins on a 4% to 20% Tris-Glycine gradient SDS-PAGE gel.

Related products

Amersham ECL DualVue Western Blotting Markers (M_r = 15 000 - 150 000)	RPN810
Amersham ECL Plex Fluorescent Rainbow Markers (M_r = 12 000 - 225 000)	RPN850E, RPN851E
Amersham ECL Rainbow Marker - Low Range (M_r = 3 500 - 40 000)	RPN755E (8 protein ladder)
Amersham ECL Rainbow Marker - High Range (M_r = 12 000 - 225 000)	RPN756E (10 protein ladder)

References

1. Laemmli, U.K., *Nature* **227**, 681 (1970).
2. Schagger, H. and von Jagow, G., *Anal. Biochem.* **166**, 368 (1987).
3. Swank, R.T. and Munkres, K.D., *Anal. Biochem.* **39**, 462 (1971).
4. Weber, K. and Osborn, M., *J. Biol. Chem.* **244**, 4406 (1969).
5. Singh, R., *Biotechniques.* **17**, 263 (1994).

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