

Rapid Running Buffer Powder (1 L of 1×)

1 Contents

Components	HY-K1017-10 pouches	HY-K1017-50 pouches
Rapid Running Buffer Powder (1 L of 1×)	10 pouches	5 × 10 pouches

2 Introduction

Rapid Running Buffer (RRB) is mainly used for agarose gel electrophoresis of nucleic acid. DNA fragments (< 5 kb) can be separated effectively under RRB buffer. Combined with a certain concentration of agarose gel, RRB buffer can support high pressure fast electrophoresis at 300-350 V (15 V/cm), reducing time to about 10 minutes. RRB buffer is also an alternative to TBE buffer for agarose gel electrophoresis of small-sized DNA.

Each pouch of MCE Rapid Running Buffer Powder (1 L of 1×) can be diluted to 1 L 1× RRB buffer. This product provides a convenient way to make RRB buffer and eliminates the need to weigh and mix individual components.

3 General Protocol

1. Prepare 1 L 1× RRB buffer

- Add 1 pouch of RRB Powder into the cleaned beaker, dissolve with 600 mL distilled water under a magnetic stirrer.
- Add distilled water to the solution in step 1 until the total volume is 1 L. The final solution is 1× RRB buffer.

Note: The pH of the 1× RRB buffer is 8.3 ± 0.2 @ 25°C.

- Store at room temperature for 1 month.

2. Electrophoresis

a. Fast electrophoresis

1.5% agarose is recommended. DNA fragments (100-5000 bp) can be separated effectively in 10 minutes under the voltage of 300-350 V (15 V/cm).

b. General electrophoresis

1× RRB buffer can replace 1× TBE buffer for agarose gel electrophoresis of small-sized DNA.

4 Storage

Store at room temperature for 3 years

5 Precautions

- 1.5% agarose gel is recommended for fast electrophoresis. Too high or too low gel concentration will result in poor fragment separation.
- It is recommended to conduct electrophoresis after cooling or on ice.
- For better results, please change the buffer in time.
- This product is for R&D use only, not for drug, household, or other uses.
- For your safety and health, please wear a lab coat and disposable gloves to operate.