

Rapid Running Buffer

REF: CP17203M

Storage Condition

Store at room temperature for three years

Components

Component	CP17203M
Rapid Running Buffer	100 Pouches

⚠ Note: pH is $8.3 \pm 0.2 @ 25^{\circ}\text{C}$ when made to 1× solution.

Description

Rapid Running Buffer (hereinafter referred to as RRB) appears as white instant granules. Each pouch makes 1 L of 1× RRB solution conveniently with a simple procedure.

RRB is a rapid nucleic acid electrophoresis buffer that mainly used in agarose gel electrophoresis of DNA. RRB has a good buffering capacity and a high electrophoresis resolution, and effectively separates DNA fragments smaller than 5 kb. With certain concentrations of agarose gel, it sustains high voltage electrophoresis with 300~350 V (15 V/cm), resulting in rapid electrophoresis that finishes in 10 min instead of 30 min. RRB is a good replacement of TBE buffer for agarose gel electrophoresis of small DNA molecules.

Method

1. To make 1 L of 1× RRB

- ① Put magnetic stirring beads and ~600 ml distilled water into a beaker.
- ② While stirring, slowly pour the whole contents from 1 pouch of RRB into the beaker; wait until everything is dissolved.
- ③ Add distilled water to bring the volume to 1 L and 1× solution is made.

2. Electrophoresis

- ① Rapid running

Recommended conditions: Gel concentration: 1.5% agarose; Voltage: 300~350 V (15 V/cm); Run time: 10 min; Separation range: 100~5000 bp.

⚠ Note 1: 1.5% agarose gel concentration is recommended for rapid running. Lower concentrations may result in poor resolution of fragments smaller than 200 bp. Higher concentrations may result in poor resolution of big fragments.

⚠ Note 2: High room temperature or consecutive running may result in high temperature of the running buffer. Wait for cooling if necessary.

- ② Normal running

1× RRB can be a replacement of TBE and to be used in normal conditions for good separation of small DNA fragments.

Buffer making procedure using the RTU instant granules

