SequaGel® UreaGel™ 6

SequaGel® UreaGel™ 8

Procedures for Gel Preparation

SequaGel UreaGel-6 and UreaGel-8 (EC-836 and EC-838, respectively) are convenient two solution systems. Both systems are comprised of the UreaGel Monomer Solution and the UreaGel Complete Buffer. The UreaGel Monomer Solution contains urea as well as acrylamide and bis-acrylamide (19:1 w/w) in deionized, distilled water. The UreaGel Complete Buffer contains 5X TBE and TEMED, also in deionized, distilled water.

Store solutions tightly capped in a dark area at room temperature (20°C). Urea may precipitate if UreaGel Monomer Solution is refrigerated. This urea will redissolve when the solution returns to room temperature. Acrylamide has been found to be neurotoxic. Protective eyewear and gloves should be worn while handling these products. If accidental exposure occurs, contact a physician immediately.

PROCEDURE

1. Mix UreaGel Monomer Solution and Buffer

Add appropriate volumes of Ureagel Monomer Solution and UreaGel Complete Buffer to a thick-walled Erlenmeyer flask (See Table 1). If desired, the solution may be degassed by stirring under vacuum for two minutes. Bring to room temperature before the solution is polymerized.

Table 1: Volumes of UreaGel 6 or 8 & UreaGel Complete Buffer to prepare 100 mL gel solution

UreaGel Monomer solution	UreaGel Complete Buffer
80 mL	20 mL

2. Add Initiators and Cast Gel

Add 0.8 mL of FRESHLY PREPARED 10% ammonium persulfate for every 100 mL of gel casting solution. Swirl gently to mix. Cast the gel. Insert the comb and allow to polymerize for one to two hours. NOTE: After two hours of polymerization wrap each end of the gel cassette with clear plastic wrap. This is important to keep the ends of the gel from drying and to maintain sample well integrity. Appropriately wrapped gels may be stored for up to 48 hours.

SUGGESTIONS FOR BEST RESULTS

- Clean glass plates thoroughly. Rinse with ethanol and wipe dry. Apply National Diagnostics' Glass Free (Order# EC-621) to one plate to ensure release after electrophoresis.
- Degassing the casting solution prior to initiation will improve reproducibility.
- Prerun the gel for 15-30 minutes before loading samples. Gel temperature should be between 45-50°C.
- After the completion of the run, allow the plates to cool 10-15 minutes before separation.

Table 2: Tracking Dye Migration in UreaGel Solutions

Gel Percentage	Bromophenol Blue (nucleotides)	Xylene Cyanole (nucleotides)
6	26	110
8	20	75

Use the table above to monitor electrophoresis progress by means of dye migration. When doing multiple loads the next load should be added when the bromophenol blue is 3-4 cm from the bottom of the gel.

For additional information and order placement:

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