

6% PAGE/Urea Solution (19:1 Acrylamide/Bis, 6M Urea)

Store at 4°C.

Catalog #:	AM9030
Product Description:	Ready-to-use solutions which, when prepared as directed, yield a total of 450 mL 6% acrylamide:bisacrylamide (19:1), 1X TBE, pH 8.3, 6 M urea, for preparing polyacrylamide gels.
Components:	360 mL 6% PAGE/Urea Solution [Ultrapure acrylamide:bisacrylamide (19:1)/Urea] 90 mL Complete Buffer (5X TBE and TEMED in deionized, distilled water)
Appearance:	Clear liquid in brown bottle.
Molecular Weight:	Acrylamide component – 71.08 N,N' Methylene-bis-Acrylamide component – 154.17 Urea – 60.06
Caution:	Poison. Acrylamide is a neurotoxin and a suspected carcinogen. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. See MSDS.
Storage Conditions:	Store solutions tightly capped in a dark area at 4°C. Urea may precipitate; redissolve at room temperature. If high resolution is required (such as sequencing), fresh solution (less than 2 months) should be used.

USER INFORMATION

General Information:	<p>Ambion 6% PAGE/Urea Solution and Complete Buffer are provided in a ready-to-use form, eliminating the dust, inhalation hazards, and the inconvenience associated with weighing acrylamide and bis-acrylamide. Concentrations are carefully controlled and both solutions are micro-filtered prior to packaging.</p> <p>Denaturing acrylamide gel solution contains urea, acrylamide, and bis-acrylamide. Complete Buffer contains TBE and TEMED. Only 10% ammonium persulfate is required. When prepared as directed, these solutions yield a 6 M Urea, 6% acrylamide (w/v) gel of acrylamide:bis-acrylamide (19:1) in 1X TBE at pH 8.3. This gel is ideal for use in all denaturing PAGE urea applications with nucleic acids, including ribonuclease protection assays and small nucleic acid electrophoresis applications, such as gel purification of RNA probes, PCR fragment analysis, and sequencing.</p>
Applications:	<p>Preparation of 100 mL Gel</p> <ol style="list-style-type: none"> Mix 80 mL 6% PAGE/Urea Solution and 20 mL Complete Buffer in a thick-walled Erlenmeyer flask. (optional) Degas the solution for 2 min. Add 800 µL 10% ammonium persulfate, swirl gently to mix, and cast the gel. Insert the comb and allow the gel to polymerize 1 to 2 hr. (Gels can be stored wrapped in plastic wrap for up to 48 hours at room temperature before running.) Pre-run the gel for 15 to 30 minutes before loading the samples. For small gels (35 mL, 20 x 40 x 0.04 cm) use 30–35 Watts. For large gels (70 mL, 40 x 40 x 0.04 cm), use 55–65 Watts. The gel temperature should be 45–50°C. At no time during prerunning or running should the gel temperature exceed 55°C. Denature the samples in loading buffer with dye following your protocol. Rinse the wells with running buffer before loading. Monitor the running of the gel with the migration of the bromophenol blue and xylene cyanol dyes in your sample buffer. After stopping the run by turning off the power supply, allow the plates to cool for 10 to 15 minutes before separating them to proceed with your protocol.

QUALITY CONTROL

Nonspecific Endonuclease Activity:	Meets or exceeds specification when a sample is incubated for 14–16 hr with 300 ng supercoiled plasmid DNA and analyzed by agarose gel electrophoresis.
Exonuclease Activity:	Meets or exceeds specification when a sample is incubated for 14–16 hr with 40 ng labeled <i>Sau3A</i> fragments of pUC19 and analyzed by PAGE.
RNase Activity:	Meets or exceeds specification when a sample is incubated for 14–16 hr with 25 ng labeled RNA and analyzed by PAGE.
Functional Testing:	6% PAGE/Urea Solution is used for PAGE analysis of labeled RNA and labeled <i>Sau3A</i> /pUC19 fragments. All samples yield bands that are sharp and intact.

OTHER INFORMATION

Material Safety Data Sheets:

Material Safety Data Sheets (MSDSs) can be printed or downloaded from product-specific links on our website at the following address: www.ambion.com/techlib/msds. Alternatively, e-mail your request to MSDS_Inquiry_CCRM@appliedbiosystems.com. Specify the catalog or part number(s) of the product(s), and we will e-mail the associated MSDSs unless you specify a preference for fax delivery. For customers without access to the internet or fax, our technical service department can fulfill MSDS requests placed by telephone or postal mail. (Requests for postal delivery require 1–2 weeks for processing.)

Warranty and Liability:

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