FASTER BETTER™

MEDIA LLC

HOW TO USE LA™ low-conductive electrophoretic medium:

LA substitutes for TAE in DNA gels, for MOPS in RNA gels. Dilute 20X LA with deionized/distilled water to 1X LA. Use 1X LA in gel reservoirs for horizontal or vertical gels. Agarose or polyacrylamide gels, with optional 0.2 ug/ml ethi dium bromide or denaturants, can be made with 1X LA.

The voltage used for LA gels is usually 3 to 5 times that of TAE and similar to that of MOPS.

For horizontal gels, gel thickness should be no more than 5 mm. The overlay of conductive medium should be no more than 1 to 2 mm in order to keep the overall conductance of the system low. 0.7 - 3% agarose can be used.

For DNA, mix the sample and any water in 5X LA loading medium to form a 1X LA sample for loading. As with all electrophoretic systems, the salt content of the samples should be as low as possible and should be similar among the reference markers and the analyzed samples. Load the wells of a gel containing 1X LA.

For RNA separations, the sample can be added to a standard denaturing medium. Example: add 0.4 uL (200 ng) ladder to 1.8 uL of loading medium (for 7 ml, combine 350 uL 20X LA, 1.4 ml formalin, 4 ml deionized formamide, 400 uL 80% glycerol, 35 uL 10 mg/ml ethidium bromide, 815 uL water). Denature at 70C, 2 min, then ice, 2 min. Load onto denaturing gel containing 1X LA and 0.67% formaldehyde.

1X LA and 5X LA loading medium are stable at RT, will not precipitate, and tolerate cooling and freezing.

Equipment used must have failsafe electrical protection.