FASTER BETTER™
MEDIA LLC

HOW TO USE LB™ low-conductive electrophoretic medium:

LB substitutes for TAE or TBE in most slab gel systems.
LB is similar to SB™, but with slightly lower conductance.
Dilute 20X LB with deionized/distilled water to 1X LB.
Use 1X LB in gel reservoirs for horizontal or vertical gels.
Agarose or acrylamide gels, with optional 0.2 ug/ml ethidium bromide or denaturants, can be made with 1X LB.
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% of a standard agarose is appropriate for DNA fragments up to 2000 bp, while a strengthened agarose at 0.3-0.5% is best for larger DNA.
Mix the sample and any required water in 5X LB loading medium to form a 1X LB 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.
The voltage for LB gels is usually 4 to 6 times that of TAE or TBE gels. The time needed for the electrophoretic run can be reduced even more, due to improved resolution.

20X LB and 5X LB loading medium are stable at RT, will not precipitate, and tolerate cooling and freezing.
For special purposes, such as resolution of DNA less than 100 bp, dilutions of LB as low as 0.1X can be employed at very high voltage.
Equipment used must have failsafe electrical protection.