Prestained Agarose Gel Electrophoresis Kit

*Features and Advantages

This product is for nucleic acid electrophoresis and has the following features and advantages:

1. Ready to use: Each kit contains agarose, nucleic acid stain, electrophoresis solution, loading buffer and other reagents, which will save the trouble to purchase all these separately.

2. Time saving: It eliminates the hassle of making gel by yourselves, thus saving you as much as one hour's time to do experiments.

3. Easy to handle: A safer and more reliable nucleic acid dye is employed in the gel to prestain the solution. During electrophoresis there is no need to stain or post-stain the solution, thus making it easier to handle and ready to use.

4. Expense saving: The agarose gel can be reused after the DNA fragments obtained, which will not affect the subsequent DNA connection and other reactions.

5. Compatible: The agarose gel uses the buffer of TAE type, which is the same as that used in the laboratory, thus making it possible to use the previous voltage during electrophoresis.

* Kit Components

1. Ten 8-well prestained agarose gels, the maximum loading volume per well: 25μl. Or ten 25-well prestained agarose gels, the maximum loading volume per well: 10μl. Six recommended concentrations are for selection as shown in the following table.

Cat. No. (8 wells)	10088	10108	10128	10158	10188	10208
Cat. No. (25 wells)	100825	101025	101225	101525	101825	102025
Concentration	0.8%	1.0%	1.2%	1.5%	1.8%	2.0%

Note: For other concentrations, please consult with the suppliers.

2. One 6×DNA Loading Buffer, Cat. No. 10052, 500μl

6×DNA loading buffer is used to process DNA samples before electrophoresis. Mix 6×DNA loading buffer with the DNA samples at a volume ratio of 1:5 completely before loading. With the buffer compositions optimized, the incorporated tracking dyes bomophenol blue and xylene cyanol FF help to visualize the DNA migration during electrophoresis. Glycerin ensures that samples gather at the bottom of the loaded wells; EDTA binds divalent metal ions and inhibits metal-ion-dependent nucleases. In agarose gel of 1%, the mobility rate of bromophenol blue is approximately the same as that of double-stranded DNA fragment of 300bp, and that of xylene blue FF is approximately the same as that of double-stranded DNA fragment of 4000bp.

3. One bottle of TAE buffer, Cat. No. 1060, 60ml per bottle

TAE is a commonly used nucleic acid electrophoresis buffer. Its main components are TRIS acetate and EDTA. DNA molecules are negatively charged in the buffer above the isoelectric point and migrate toward the positive pole. TAE buffer is often used for separation of genomic DNA, macromolecule superhelix DNA and amplified DNA fragments. TAE buffer will achieve better separation effect on DNA fragments larger than 13kb.

*Shipment and Storage

Ship and store the kit at 4℃.It will remain stable for twelve months.

Store 6×DNA loading buffer at 4℃ for short time's shipment and at -20℃ for long time. It will remain stable for twelve months.

Ship and store TAE buffer at room temperature. It will remain stable for twenty-four months.

*Reagents Required But Not Provided

Nucleic acid sample, Marker and Deionized water

*Procedure

1. To prepare 50 ml buffer, add 1 ml TAE buffer to 49 ml deionized water, mix well and pour the mixed buffer into the electrophoresis cell above the top surface of the gel 1mm. (Note: TAE buffer may precipitate at lower temperature. In cases precipitates generate, dissolve in water bath at 37℃ and shake well right before use.)

2. Take out one kit, take off the plastic package, reverse it, support the two edges with index and middle fingers of both hands, immerse it in the buffer with the opening downward and gently press the central part of the kit with two thumbs. Thus the gel will fall into the buffer with the side of the well facing upward. Move the gel to make the well end close to negative electrode of the electrophoresis cell. If bubbles are produced in the sample wells, try to remove them.

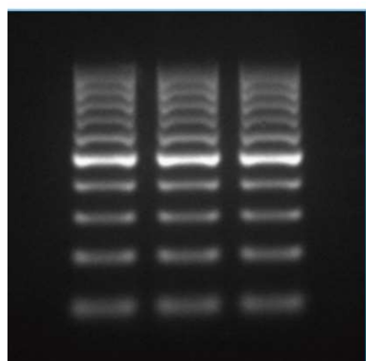
3. Add 6×DNA loading buffer to DNA sample and mix well before use. Carefully load the mixed sample and prepared Marker into the wells with pipette at the same time.

4. Connect the electrophoresis cell to the power source according to the conventions: Red-Anode and Black-Cathode. Turn on the power source. Note that the DNA sample moves from the negative to the positive (the end near the wells that DNA samples are loaded in is negative).

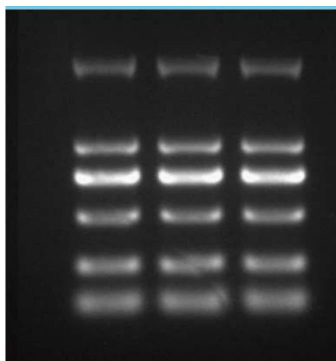
5. Determine whether to stop electrophoresis according to the migration of the tracking dyes.

6. Switch off the power source when the electrophoresis finishes. Visualize the band by using a gel documentation system and compare the size of the amplified product with that of Marker.

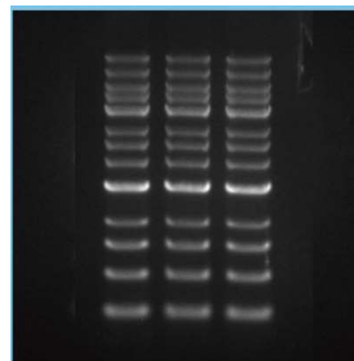
*Gel Image



100bp 2%



2000bp 1%



1kb 1%

TAE buffer 80v 60min

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