Nucleic acid denatured polyacrylamide gel preparation kit

Item No. : P1330
Specification: 25T/50T
Store: 2-8°C, away from light, valid for 1 year

Product Contents:

Ingredients	P1330-25T	P1330-50T	Save conditions
40%Acr/Bis(19:1)	100mL	100mL×2	4°C, away from light
10×TBE powder	1L×1	1L×2	RT
PAGE glue coagulant	1g	2g	Dry powder 4C; Solution -20°C
PAGE gel accelerator	0.8mL	1.5mL	4°C, away from light
Urea	157.5 g	315g	RT

Product description:

Polyacrylamide gel electrophoresis has a very high resolution, can be molecular weight difference 20-800 base length of single strand DNA or RNA analysis and purification. Under appropriate conditions, single-stranded DNA molecules or RNA with a size difference of only one base pair can be separated. This kit contains relevant reagents for gluing. Customers only need to bring their own gluing equipment and distilled water to make gluing. It can be used for synthetic oligonucleotide analysis and purification, RNA enzyme protection experiments, in vitro transcription studies and RNA imprinting.

Instructions for gluing:

1、First, add distilled water or deionized water to the dry powder of PAGE adhesive coagulant (10mL water per gram of PAGE adhesive coagulant) and configure the solution into 10% solution. Then, the solution is divided into small volumes and frozen at -20°C, and then used after melting when preparing gel. The shelf life of 4°C is about 7 days.

2、Take out 1 bag of 10 x TBE buffer powder, dissolve it with 800mL distilled water first, and finally fill it with distilled water to 1L, that is, 10 x TBE buffer.

3、The electrophoresis solution buffer is 1 x TBE, and the 10 x TBE buffer is diluted 10 times with distilled water, which is 1 x TBE.

4, according to the molecular weight of nucleic acid size, select the gel concentration, according to the following table preparation. (The **amount of preparation can be added or subtracted according** to the following table. If the concentration of glue used is different from the above, it can be adjusted by itself, mainly to adjust the amount of 40% Acr/Bis (need concentration × total volume ÷40%), and finally make up the total volume with water.)

5. Before loading the sample, rinse the comb hole repeatedly with 1 x TBE Buffer to clear the urea in the comb hole, and add the appropriate concentration and volume of DNA sample into the comb hole.

Configuration table:

Total Volume	15mL	15mL	15mL	15mL	15mL	15mL
Concentration	**20%**	**15%**	**12%**	**8%**	**6.5%**	**5%**
40% gumming solution (19:1)	7.5mL	5.625mL	4.5mL	3mL	2.44mL	1.875mL
10 x TBE	1.5mL	1.5mL	1.5mL	1.5mL	1.5mL	1.5mL
Urea	6.3g	6.3g	6.3g	6.3g	6.3g	6.3g
10%PAGE glue coagulant	150muL	150muL	150muL	150muL	150muL	150muL
PAGE gel accelerator	15muL	15muL	15muL	15muL	15muL	15muL
Double steamed water	5.835mL	7.71mL	8.835mL	10.335mL	10.89mL	11.46mL

What to watch for:

1. First dissolve the urea with water and then mix with other reagents, and finally add PAGE adhesive coagulant and 10% PAGE adhesive coagulant.
2. PAGE adhesive coagulant is volatile. Please close the bottle tightly after use.
3. At room temperature gel time should not be less than 30 minutes, such as the temperature is too low, can be put 37℃ temperature box solidification.
4. Insert the comb immediately after filling the glue.
5. After the glue has solidified, put it into the electrophoresis solution (let the electrophoresis solution spread over the sample holes), gently pull out the comb to prevent the deformation of the sample holes.
6. It is recommended to select the appropriate glue concentration and voltage for the glue running experiment.
7. The lower the glue concentration, the more transparent the glue and the softer the glue. Please pay attention to the operation when dyeing to prevent the glue from breaking.
8. Separation range **(for reference only)**

Glue concentration	Separation fragment size (base)
6% - 8%.	70-300
8% - 10%.	45-70
10% - 13%.	35-45
13.5% - 15%.	25-35
15% - 20%.	8-25
20% - 30%.	2-8

Related products:

D0990 *2 x UREA-TBE Loading Buffer(DNA denaturation)*
G7210 *PAGE gel silver dye kit*