RapidSet Broad-Range Gradient Gel Kit

Catalog #: RA10043

Product Overview

This kit is designed specifically for protein denaturation PAGE electrophoresis. It employs a one-step instant gel technology and a gradient-like gel fabrication process to achieve rapid separation of a broad spectrum of proteins (10-250kDa). When used with EnkiLife 's universal rapid electrophoresis buffer, the entire process from gel preparation to electrophoresis can be completed within 1 hour.

Product Components

Components	Storage conditions	100T	100 T Set
Coagulant	-20℃	10 mL	10 mL
Lower layer adhesive 1	2-8℃	250mL	250mL
Lower layer adhesive 2	2-8℃	250mL	250mL
Top layer adhesive 3	2-8℃	100mL	100mL
Top layer adhesive 4	2-8℃	100mL	100mL
20× Universal Rapid Electrophoresis Buffer	2-8℃	/	500mL
Manual	-	1pcs	1pcs

illustrate:

1. Store according to reagent requirements; shelf life is 1 year.
2. The coagulant should be stored at -20℃ and has a shelf life of 3 months at 4℃.
3. The reagent kit should not be frozen directly;
4. This product can achieve its best performance when used with 20× universal rapid electrophoresis buffer (RA10044) .

Product Advantages

- **Instant gel formation :** No waiting time required, simply add the matching reagents to quickly form a gel, making the operation process extremely simple **.**
- **Broad spectrum coverage:** The gradient gel-like structure allows for clear separation of proteins with molecular weights from 10 to 250 kDa without the need to change the formulation.
- **High efficiency and time saving:** 20 min gel, 15-35 min (150-180V) rapid electrophoresis.

Operating procedures

One-step solidification method (taking a 1.0mm mini glue as an example)

1. Take 2.5 mL of each of the lower layer gel 1 and lower layer gel 2 and mix them well;
2. Add 50 μL of coagulant to the above mixture and mix gently. Pour the mixture into the gel casting plate, so that the liquid level is about 1.5 cm from the top edge of the short gel casting plate .

⚠ This solution is in excess; do not inject it all. After adding the coagulant, mix gently to avoid excessive air entering and affecting solidification .

3. Take 1.0 mL each of upper layer 3 and upper layer 4 (shake well before use) and mix well;
4. Add 20 μL of coagulant to the above mixture and mix gently. Pour the mixture into the gelation plate and insert the comb teeth.
5. Wait about **20 minutes** for the adhesive to solidify, then slowly pull out the comb teeth for later use.

Two-step solidification method (taking a 1.0mm mini glue as an example)

1. Take 2.5 mL of each of the lower layer gel 1 and lower layer gel 2 and mix them well;
2. Add 50 μL of coagulant to the above mixture and mix gently. Pour the mixture into the gel casting plate, so that the liquid level is about 1.5 cm from the top edge of the short gel casting plate.

⚠ This solution is in excess; do not inject it all. After adding the coagulant, mix gently to avoid excessive air entering and affecting solidification .

3. Add an appropriate amount of water or ethanol to cover the liquid surface, wait **8-15 minutes for** the gel to solidify, and then pour off the upper layer of liquid.
4. Take 1.0 mL each of upper layer 3 and upper layer 4 (shake well before use) and mix well;
5. Add 20 μL of coagulant to the above mixture and mix gently. Pour the mixture into the gelation plate and insert the comb teeth.
6. Wait about **7 minutes** for the adhesive to solidify, then slowly pull out the comb teeth for later use.

⚠The preparation methods for gels of different thicknesses are as follows:

Lower layer adhesive formulation			
Gel thickness	Lower layer adhesive 1	Lower layer adhesive 2	Coagulant
0.75mm	2.0mL	2.0mL	40μL
1.0mm	2.5mL	2.5mL	50μL
1.5mm	3.8mL	3.8mL	7 6μL

Top layer adhesive formulation			
Gel thickness	Top layer adhesive 3	Top layer adhesive 4	Coagulant
0.75mm	0.8mL	0.8mL	16μL
1.0mm	1.0mL	1.0mL	20μL
1.5mm	1.5mL	1.5mL	30μL

Precautions

1. The gelation rate is positively correlated with temperature, and the amount of coagulant can be adjusted appropriately according to the temperature;
2. Allowing the solution to equilibrate to room temperature before preparing the gel can effectively prevent the formation of air bubbles during gelation;
3. This product is suitable for both Tri- Gly electrophoresis and MOPS electrophoresis systems; MOPS electrophoresis is recommended.
4. Recommended voltage : 150-180V, maximum not exceeding 200V ;
5. This product is for research use only.