

FT-U50450



INTERFINE CHEMICALS

ANALYTICAL SCIENCES

BIOCHROMATOGRAPHY

BIOSCIENCES

CRACK FREE

Description

Name :	Crack Free concentrated 4X
Catalog Number:	U50450, 1 kit
contains:	U5045a Crack free (500 ml concentrated 4X) U5045b Crack free Midi cellophane (20 units 20x20 cm)

Storage: +4°C (L)

Applications:

Crack-Free kit is based on a unique solution and cellophane sheets, which together regulate the rate of water released from the gel to ensure crack-free gel of up to 20% polyacrylamide content. Crack free allows drying polyacrylamide gels without cracks for fluorography, densitometry, autoradiography and permanent storage.

Directions for use

20 midi gels (100 ml for 20X20 cm gel) or 57 mini gels (35 ml for 10X10 cm gel, the cellophane sheets need to be cut in half). It is possible to immerse several gels together but one must verify that all of the gels are immersed.

Handling and Storage

- Dilute the stock solution by four-fold with dH₂O (the amount of solution needed depends on the size of the gel or the container used to immerse the gel). For example, add 100 ml stock solution to 300 ml dH₂O.
- Cut two supporting papers (3mm) for each gel, in minimum size of the gel.

Protocol :

Gel treatment by Crack Free solution

1. Put the gel in an appropriate container. Rinse the gel three times for 10 min in dH₂O. Handle the gel gently to prevent it from cracking.
2. Add Crack-Free solution X until the gel is immersed fully in the solution.
3. Equilibrate the gel by shaking the gel in the solution for 10-30 min (see timetable at below). Immerse the gel in the solution for a longer time (e.g. overnight) only if proteins were previously fixed to the gel.

Drying the gel with supporting paper and one cellophane sheet (option A)

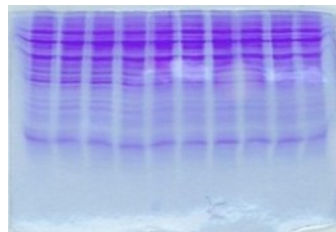
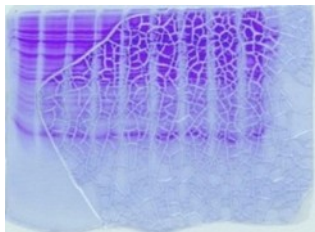
1. After equilibration, immerse cellophane sheet in the Crack-Free solution X for no more than 5 minutes.
2. Wet the supporting paper with the Crack-Free solution X and put it over the gel-drying apparatus.
3. Lay the pretreated gel on the center of the supporting paper. Make sure no bubbles are trapped between the gel and the supporting paper. If necessary, add a little crack free solution X to the surface of the supporting paper.

FT-U50450

4. Carefully lay the pretreated cellophane sheet over the gel so that no bubbles are trapped anywhere between the cellophane and the gel. Add a little more Crack-Free solution X if necessary. Gently smooth out any wrinkles in the assembly with a gloved hand.
5. Wet the second supporting paper with the Crack-Free solution X and cover the cellophane sheet.
6. Dry for two hours at 60-80°C.

Drying the gel with two cellophane sheets (option B)

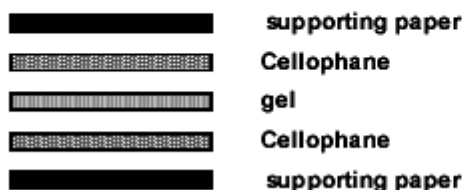
1. After equilibration, immerse two cellophane sheets in the Crack-Free solution X for no more than 5 minutes.
2. Wet the supporting paper with the Crack-Free solution X and put it over the gel-drying-apparatus.
3. Carefully lay the pretreated cellophane sheet over the supporting paper so that no bubbles are trapped anywhere between the cellophane and the supporting paper.
4. Lay the pretreated gel on the center of the cellophane sheet. Make sure no bubbles are trapped between the gel and the cellophane sheet. If necessary, add a little crack-free solution X to the surface of the cellophane sheet. Add a little more of the Crack-Free solution X if necessary. Gently smooth out any wrinkles in the assembly with a gloved hand.
5. Carefully lay the pretreated cellophane sheet over the gel so that no bubbles are trapped anywhere between the cellophane and the gel. Add a little more Crack-Free solution X if necessary. Gently smooth out any wrinkles in the assembly with a gloved hand.
6. Wet the second supporting paper with the Crack-Free solution X and cover the cellophane sheet.
7. Dry for two hours at 60-80 degree Celsius.



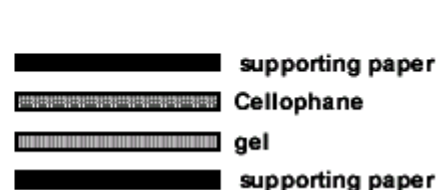
Time Table for immersing gels in Crack-Free solution

Material	Time for shaking in the Crack Free solution
Supporting paper	Immerse briefly in the solution
Protein gel <14%	10 minutes or overnight for fixed protein
Protein gel 14%-16%	30 minutes or overnight for fixed protein
Protein gel >16%	120 minutes or overnight for fixed protein
Cellophane sheet	5 minutes before drying

Option B



Option A



FT-U50450

Problem	Cause	Corrective action
Gels cracking during drying	<ul style="list-style-type: none"> i) Air trapped between cellophane layers. ii) Rough edges or small cracks on gel. iii) Gel was not soaked in crack-free solution X long enough. iv) Gel was not fully immersed in crack-free solution X. 	<ul style="list-style-type: none"> i) Apply adequate Crack-Free solution X. ii) Trim rough edges & small cracks. iii) Equilibrate gel in crack-free solution X for a longer time. iv) Immerse the gel fully in crack-free solution X.
Gels turning white after drying	Gels drying too fast.	Remove gel from possible drafts.

Other Information

For in vitro R&D use only
 Please contact InterBioTech – Interchim for any other information

Rev.H03vb