

De-Expose™ Background Remover

Instruction Manual

Catalog #170-5020

Introduction

De-Expose background remover removes undesirable background from overexposed X-ray film. It can be used for any application that uses X-ray film exposure, including western, Southern and northern blotting, gel-shift assays, ribonuclease protection assays, dot/slot blotting, and DNA sequencing.

There are many causes of high background, including overexposure of film, insufficient or incorrect blocking solution, impure antibodies, or incorrect antibody or probe dilution. The experiment may have to be repeated several times to troubleshoot and eliminate the background. De-Expose background remover can be used to fix all background problems regardless of the cause and without the need to strip and reprobe the blots or repeat an entire experiment.

De-Expose background remover can be used with film that was exposed recently or old film that was exposed years ago. Besides removing background, it also removes speckles and corrects overloaded bands. The working solution can be used at room temperature and does not need to be used in the darkroom. The entire process takes only a few minutes to complete.

Product Specification

This product is a 10x stock solution in 250 ml bottle. It is sufficient to perform background removal for 10 pieces of 5" x 7" film or 5 pieces of 8" x 10" film.

Storage Conditions

Store at 4°C upon receipt. The product is shipped at ambient temperature, and is guaranteed for one year from the date of purchase when stored under recommended conditions.

Instructions for Use

1. Wash film to be treated with water.
2. Prepare working solution immediately before use by diluting the product solution 10x with deionized water (see table below). The working solution is stable for up to 30 min.
3. Pour prepared working solution into a glass or plastic container large enough to fully submerge film to be treated. Place the container on a shaker.
4. Place film to be treated in the working solution. Monitor closely to ensure that the film does not stick to the container bottom. Turn film over with plastic forceps every 15–30 sec.
5. Remove film with plastic forceps when the image looks desirable.

Note: It is important to monitor film closely since the desired image can be erased.

6. Immediately wash film with running tap water to stop the reaction.
7. Allow film to air dry.

Preparation of working solution

Film size	Container Size	Volume of Product	Volume of DI water	Total Volume
5" x 7"	8" x 8" x 3.5"	25 ml	225 ml	250 ml
8" x 10"	10" x 13.5" x 3"	50 ml	450 ml	500 ml

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Troubleshooting Guide

Problem	Cause	Solution
Film was bleached completely	<ul style="list-style-type: none">• Working solution was too concentrated• Film was incubated for too long	<ul style="list-style-type: none">• Working solution may be further diluted• Monitor film closely and stop reaction as needed
It took too long to remove background	<ul style="list-style-type: none">• Working solution capacity exhausted	<ul style="list-style-type: none">• Prepare fresh working solution
Background was not evenly removed across the film	<ul style="list-style-type: none">• Film was not turned over often and stuck to the container bottom• More than one film was incubated at the same time	<ul style="list-style-type: none">• Shake container during incubation and turn film over often• Incubate only one film at a time
Hard to tell when to stop the reaction	<ul style="list-style-type: none">• Difficult to decide when image is optimal	<ul style="list-style-type: none">• Stop incubation at several time points; film can be repeatedly incubated in the same solution

Related Products

Catalog #	Description
170-5040	Immun-Star HRP Substrate, 500 ml
170-5041	Immun-Star HRP Substrate, 100 ml
170-5018	Immun-Star AP Substrate, 125 ml
170-5019	Immun-Star Enhancer, 6.25 ml
162-0115	Nitrocellulose Membrane, 0.45 μ m, 30 cm x 3.5 m, 1 roll
162-0112	Nitrocellulose Membrane, 0.2 μ m, 30 cm x 3.5 m, 1 roll
162-0177	Immun-Blot PVDF Membrane, 26 cm x 3.3 m, 1 roll
162-0184	Sequi-Blot PVDF Membrane, 26 cm x 3.3 m, 1 roll
162-6404	Blotting Grade Blocker, nonfat dry milk, 300 g
161-0780	10x Phosphate Buffered Saline, 1 L
170-6435	10x Tris Buffered Saline, 1 L
170-6531	Tween 20, EIA grade, 100 ml
161-0783	1x Phosphate Buffered Saline/1% Casein, 1 L
161-0782	1x Tris Buffered Saline/1% Casein, 1 L

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