



# Severn Biotech Ltd.

## De-staining Bags (T-Bag method) for Ethidium Bromide Removal

**Product Code 90-1500-10 (10 Bags Pack), 90-1501-50 (50 Bags Pack)**

Ethidium Bromide is a widely used intercalating dye stain for visualising DNA and RNA, used in Agarose and Poly-acrylamide Gel Electrophoresis. (PAGE)

To safely remove the Ethidium Bromide dye from solution a number of methods are available, for large volumes charcoal filters will remove the majority of organic dye materials and for small scale volumes resin absorbent de-staining bags (T-Bags) can be used.

De-staining bags manufactured by Severn Biotech Ltd are designed to remove 5-6mg of Ethidium bromide from solution. Most buffers and aqueous solutions used in molecular biology, use Ethidium Bromide in a concentration of 10mg/ml (concentrate) so each De-staining Bag (T-Bag) will remove the majority of DNA/RNA nucleic acid stain from solution.

The red colour seen within the solution containing Ethidium Bromide is completely removed by the de-staining bags; if the solution does not look colourless then Ethidium Bromide is still present. To completely remove, then simply add another de-staining bag, until the solution becomes colourless.

The bags can then be removed and incinerated or disposed of within the hazardous waste; the liquid solution devoid of stain can be re-used or disposed of, into the municipal drainage system.

The de-staining bags can be used to remove a number of different dyes from solution; Ethidium Bromide, Coomassie Blue G250 and Coomassie Blue R250 are three of the most common dyes used.

However, Fluorescein dyes can also be removed in small mg quantities.

Removal takes minutes, but to get complete removal and to obtain a clear solution normally takes overnight or up to 24 hours. This is usually aided by gentle stirring with a magnetic stirrer bar.

Data/ DYE	Absorption A=285nm	% Removal
<b>Ethidium Bromide (5mg/500ml)</b>		
Time ZERO *	0.648	-
24 hours*	0.010	99.5%
<b>Coomassie Blue G250 (5mg/500ml)</b>	Absorption A=580nm	
Time ZERO *	0.634	-
24 hours*	0.031	99%

\*to remove dyes from buffer solutions normally requires more de-staining bags than aqueous solutions .  
Stirring over 24 hours ensures complete removal of dyes from solution.



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Ethidium Bromide Solution DNA Stain 10mg/ml (Dropper Bottle)  
Ethidium Bromide Solution DNA Stain 10mg/ml  
Coomassie Blue G250 Protein Stain,

Product Code 30-30-01DB, volume 10ml  
Product code 30-30-01, volume 10ml  
Product code 30-39-10, volume 1000ml.

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