Instructions for Use

SERVA Silver Staining Kit for SDS PAGE SERVA Silver Staining Kit for Native PAGE

Kit Components	For SDS PAGE	For native PAGE
	500 ml Fixing solution	500 ml Trichloroacetic acid
	25 x 30 mg Sodium thiosulfate • 5 H ₂ O	25 x 30 mg Sodium thiosulfate • 5 H ₂ O
	250 ml Silver nitrate solution	250 ml Silver nitrate solution
	1,5 ml Formaldehyde	1,5 ml Formaldehyde
	500 ml Sodium carbonate solution	500 ml Sodium carbonate solution
	30 g Glycine incl. soon for 1 g portions	30 g Glycine incl. soon for 1 g portions
Application	SERVA Silver Staining Kit is a highly sensitive, easy and fast staining method for SDS PAGE and native gels.	
Features	 Rapid staining: 45 – 60 min. Very low background staining Highly sensitive Contains all needed for fixation and staining For 25 applications (gel format: 125 mm x 125 mm) 	
Storage	Store at room temperature. If stored at recommended temperature at least usable until: see expiry date on label.	

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Safety Precautions: The solutions are highly inflammable, toxic and dangerous for the environment. Please follow the instructions for handling hazardous substances. It is strongly advised to wear protective glasses, gloves and clothing during all steps of the staining procedure.

For the following instructions please use 100 ml solution per staining step per gel ($125 \times 125 \text{ mm}$). The times for incubation and wash steps are optimized for acrylamide gels of 0.3 - 0.5 mm thickness, for thicker gels please double the times. The use of a shaker is recommended in all steps of detection. Gentle motion (50 - 100 rpm) of the gel in the solution will help to optimize fixation, staining and destaining steps. Silver staining is a highly sensitive method. Please use dest. water and clean staining dishes (ideally made of glass) to reduce background. For reproducibility please keep within given incubation and wash times.

Step	Solution	Incubation
1. Fixing (native)	Trichloroacetic acid *	≥ 20 min.
Part-No. 36913.01	100 ml (> 5x reusable!)	
Fixing (SDS)	Fixing solution	
Part-No. 400054.07	100 ml (> 5x reusable!)	
2. Wash	30 % (v/v) Ethanol	2 x 10 min.
3. Pre-Treatment	Sodium thiosulfate • pentahydrate	1 min.
Part-No. 400098.07	Dissolve 30 mg aliquot in 100 ml H_2O dest.	
4. Wash	H ₂ O dest.	3 x 10 sec. (stop watch)
5. Stain	Silver nitrate solution **	15 min.
Part-No. 400050.07	10 ml ad 100 ml H_2O dest.	
6. Wash	H ₂ O dest.	2 x 10 sec. (stop watch)
7. Develop	Sodium carbonate solution	By view, approx. 1 - 5
Part-No. 400052.07 +	20 ml ad 100 ml H ₂ O dest.	min.
Part-No. 400053.07	+ 50 µl Formaldehyde 37%	
8. Wash	H ₂ O dest.	1 x 10 sec.
9 Stop	1 % (w/v) Glycine	5 min.
Part-No. 23390.06	1 g Glycine ad 100 ml H ₂ O dest.	
10. For long term storage	2 % (w/v) Glycerine in H ₂ O dest.	10 min.

Please dispose chloride hydrocarbon expertly **please dispose silver nitrate expertly Vers 07/13