

# Instructions for Use

## SERVA Silver Staining Kit for SDS PAGE

Kat.-Nr. 35076

## SERVA Silver Staining Kit for Native PAGE

Kat. Nr. 35077

Kit Components	For SDS PAGE	For native PAGE
	500 ml Fixing solution	500 ml Trichloroacetic acid
	25 x 30 mg Sodium thiosulfate • 5 H <sub>2</sub> O	25 x 30 mg Sodium thiosulfate • 5 H <sub>2</sub> 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. spoon for 1 g portions	30 g Glycine incl. spoon for 1 g portions
<b>Application</b>	SERVA Silver Staining Kit is a highly sensitive, easy and fast staining method for SDS PAGE and native gels.	
<b>Features</b>	<ul style="list-style-type: none"><li>• Rapid staining: 45 – 60 min.</li><li>• Very low background staining</li><li>• Highly sensitive</li><li>• Contains all needed for fixation and staining</li><li>• For 25 applications (gel format: 125 mm x 125 mm)</li></ul>	
<b>Storage</b>	Store at room temperature. If stored at recommended temperature at least usable until: see expiry date on label.	

### Instructions for Use:

**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 x 125 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) Part-No. 36913.01	Trichloroacetic acid * 100 ml (> 5x reusable!)	≥ 20 min
Fixing (SDS) Part-No. 400054.07	Fixing solution 100 ml (> 5x reusable!)	≥ 20 min ( > 1 h significantly enhances the staining sensitivity)
2. Wash	30 % (v/v) Ethanol	2 x 10 min
3. Pre-Treatment Part-No. 400098.07	Sodium thiosulfate • pentahydrate Dissolve 30 mg aliquot in 100ml H <sub>2</sub> O dest.	1 min
4. Wash	H <sub>2</sub> O dest.	3 x 10 s (stop watch)
5. Stain Part-No. 400050.07	Silver nitrate solution ** 10 ml ad 100 ml H <sub>2</sub> O dest.	15 min
6. Wash	H <sub>2</sub> O dest.	2 x 10 s (stop watch)
7. Develop Part-No. 400052.07 + Part-No. 400053.07	Sodium carbonate solution 20 ml ad 100 ml H <sub>2</sub> O dest. + 50 µl Formaldehyde 37%	By view, approx. 1 - 5 min
8. Wash	H <sub>2</sub> O dest.	1 x 10 s
9 Stop Part-No. 23390.06	1 % (w/v) Glycine 1 g Glycine ad 100 ml H <sub>2</sub> O dest.	5 min
10. For long term storage	2 % (w/v) Glycerol in H <sub>2</sub> O dest.	10 min

\*Please dispose chloride hydrocarbon expertly      \*\*please dispose silver nitrate expertly

Vers. 10/14