Protein Micro-Analysis Facility, Innsbruck Medical University

MS-Compatible Silver Staining

According to: Blum et al. *Electrophoresis* 8, 93-99, 1987. Another suitable protocol was published by Shevchenko et al. *Anal Chem.* 68, 850-858, 1996.

Use high quality chemicals and prepare all solutions fresh!

Beware of contaminations by keratines!!

See also the file "Gel Handling" in the Download Section!

All steps should be carried out on a shaker.

Step	Reagent	Duration
Fixing	40% ethanol / 10% acetic acid in deionized water	≥1 h
Wash	30% ethanol in deionized water	2 x 20 min
Wash	deionized water	1 x 20 min
Sensitizer	sodium thiosulfate 0.02% in deionized water	1 min
Wash	deionized water	3 x 20 sec
Silver	silver nitrate 0.1% in deionized water	20 min at 4 °C
Wash	deionized water	3 x 20 sec
Development	3% sodium carbonate 0.05% formaldehyde (37%) in deionized water	3-5 min
Wash	deionized water	1 x 20 sec
Stop	5 % acetic acid in deionized water	5 min
Wash	deionized water	3 x 10 min
Store	1 % acetic acid in deionized water	