

Vorum Silver Stain Method

- Fix 2-18 hrs. (50% MeOH/12% HoAc, 0.05% formalin), 1 liter/gel
- Wash three times in 35% EtOH/water for 20 min
- Wash twice in distilled water for 10 minutes
- Sensitize 2 min with 0.5L of 100 mM sodium thiosulfate, 30 mM potassium ferricyanide
- Wash in 0.5 L water for 10 min. four times
- Stain 20 min. with 1 L 0.2% silver nitrate, 0.076% formalin
- Wash in water 1 min. twice
- Develop till dark enough with 1 L of 6% sodium carbonate, 0.05% formalin, 0.0004% sodium thiosulfate
- Stop 5 min. with 1 L of 50% MeOH/12% HoAc
- Store in 1% HoAc/water

Desiderio Silver Destain

- Water 5 min (3X)
- Destain whole gel 15 min. with 1:1 v/v 30mM potassium ferricyanide and 100 mM sodium thiosulfate prepared fresh
- Water 5 min. (10X)
- Proceed to Vorum procedure and fix for 2 hrs and redo silver stain

*Destain is useful if background darkens faster than the protein bands or if the gel is not stopped quickly enough and is generally too dark.

References:

Vorum and Blum procedures: <http://www.protana.com/PDF/ASMS/PosterSilverstain.pdf>
presented at 48th American Society for Mass Spectrometry Conference on Mass Spectrometry June 11-15 2000, Long Beach, CA, poster TPE 191.

Desiderio procedure: R.R. Becklin, E.S. Umstor, D.M. Desiderio, poster WPF 216, 48th American Society for Mass Spectrometry Conference on Mass Spectrometry June 11-15 2000, Long Beach, CA.