“Blue-Silver” Coomassie Staining
A High sensitivity Coomassie G-250 Staining procedure.

This is a modified Neuhoff procedure as adapted in Electrophoresis 2004, 25, 1327-1333.

If the gel is to be used for in gel trypsin digestion and protein identification, see the general gel handling procedures described in the In Gel Digestion procedures.

Materials

- Milli-Q water
- Phosphoric Acid
- Ammonium Sulphate
- Methanol
- G-250 Coomassie

The staining solution is prepared as follows and can be stored at Room temperature for >6 months.

For 1 L of Staining Solution:

- To 100 ml water add phosphoric acid (enough to obtain 10% in the final 1L).
- Add 100 g ammonium sulphate.
- Add 1.2g Coomassie Blue G-250.
- Add water to 800 mL.
- Add 200 mL of 100% methanol.

Procedure

1. Fix gel in 50% ethanol and 2% phosphoric acid.
2. Wash the gel for 2x 20 minutes in ddH2O.
3. Add staining solution and stain overnight or longer.
4. Rinse the gel with ddH2O and store in ddH2O at 4°C until further use (drying or for protein ID).

Note: Be sure to dispose of all methanol containing solutions appropriately. Methanol should never be disposed of down the drain.