

Gel Staining Information Update

We have recently concluded that the SYBR Safe stain does not fluoresce nearly as intense as Ethidium Bromide (EtBr). The problem with this diminished fluorescence is the poor quality photos that result. Gels stained with EtBr produce far superior gel photos. For that reason, *we are going to “optimize” the camera setting, on the gel doc system, for use with EtBr.* However, we will include both stains with your supplies. See the staining directions below.

Each stain requires a different filter. The filter is located inside the camera hood and is easily replaced. Should you decide to use the SYBR Safe, you will need to change the filter. Be careful that you do not force the filter between the clips as it is possible to bend the metal tabs. If you do use the fluorescent green filter (for SYBR Safe), **please replace the filter with the EtBr filter before returning the equipment.**

Ethidium Bromide Staining

1. Put on a pair of **nitrile** gloves. Avoid latex gloves.
2. Carefully slide the gel from the gel tray into a staining container. The container could be a large weighboat or plastic sandwich tray.
3. Cover the gel with EtBr and allow the gel to stain for a minimum of 10 minutes. If this is a 2% gel (PCR), you should increase staining time to 15-20 minutes.
4. Pour the EtBr back into the aluminum-covered bottle. This will be returned with your unused supplies and cell-contaminated wastes.
5. Destain the gel, by covering the gel with deionized or distilled water, for 10 minutes (or 15 minutes if it's a 2% gel). Do not use tap water as it is chlorinated and may reduce the fluorescence of the DNA by removing the bromine in EtBr.
6. Pour the destaining liquid down the sink, being careful not to allow the gel to slip out of the staining tray.
7. Carefully place the gel on the glass plate of the transilluminator. Gels can be discarded in the regular trash following documentation.

SYBR Safe Staining

1. Put on a pair of gloves.
2. Carefully slide the gel from the gel tray into a staining container. The container could be a large weighboat or plastic sandwich tray.
3. Cover the gel with SYBR Safe and allow the gel to stain for 30 minutes.
4. Pour the SYBR Safe back into the aluminum-covered bottle. This can be reused and return the bottle with unused supplies and cell-contaminated wastes.
5. Carefully place the gel on the glass plate of the transilluminator. Gels can be discarded in the regular trash following documentation.