Suggested Protocols for Working with GelGreen:

(A) Using GelGreen (concentrated stock at 10,000X in water) to cast agarose gel with 1x GelGreen:

(This method gives fast result, but the stain in gel may have a small effect on the migration of DNA fragments.)

For example:

- Prepare 40 ml of molten agarose gel solution. Cool to 70 to 80 ^{o}C.
  (*Use polypropylene containers to prepare the gel solution mixture. GelGreen binds to glass and other non-polypropylene plastics which may result in a decreased sensitivity from your sample.*)
- Add 4 µl 10,000X of concentrated GelGreen to the gel solution, mix thoroughly.
- Cast the gel as usual. Wait 45 to 60 minutes or until the gel solidifies and is ready for use.
- Load and run your DNA samples as usual.
- After electrophoresis, take the gel out of the warm buffer and let it cool down for a while; visualize the DNA bands with the PrepOne™ Sapphire.

(B) Post staining DNA bands following gel electrophoresis with a 3x GelGreen in 0.1M NaCl solution:

(This is the best method for maximum sensitivity! DNA migration will not be affected by the stain.)

- Separate the DNA samples by standard electrophoresis.
- Prepare a staining buffer (**3X GelGreen** in 0.1M NaCl solution) ---
  For example: add 15 µl of 10,000X GelGreen stock reagent to 50 ml 0.1M NaCl solution, mix thoroughly.
  It is very important to use polypropylene containers instead of glass containers. Glass surfaces will absorb GelGreen and render it unable to staining the DNA.
- Place the gel into the staining buffer. Ensure there is enough buffer to cover the whole gel. Incubate for **at least 45 to 60 minutes with gentle agitation**. Cover the container with a piece of aluminum foil to prevent photo bleaching of the dye from the ambient light.