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Overview: Using Agrylla PrepParticles to remove fluorescent dye from recovery well DNA

Fast simple Lonza© procedure

1. Load samples in top tier of wells
2. Run until band of interest almost reaches the second tier of wells (2-5 minutes)
3. Stop the run and add FlashGel™ Recovery Buffer. Start and run band into the well.
4. Stop the run and remove the DNA from the well(s).

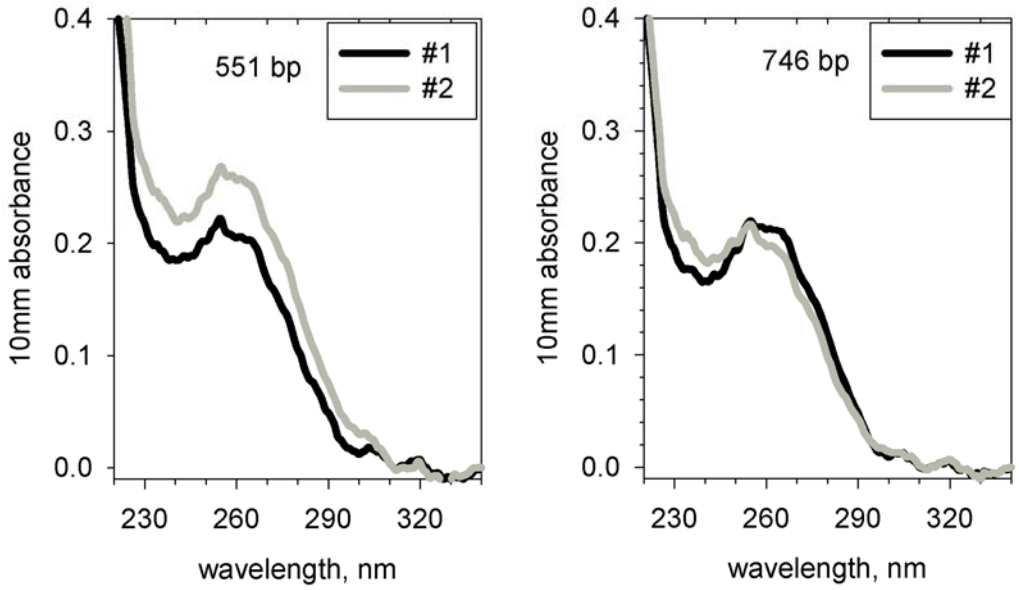
The FlashGel™ System for Recovery

✓ Eliminates the need to cut away and then purify bands.

✓ As DNA migrates to the second tier of wells, it is free from the agarose matrix and easily extracted via pipette, with the aid of the FlashGel™ Recovery Buffer.

✓ Samples are recovered at 80% - 100% efficiency, free from inhibitors and ready for subsequent re-amplification, cloning or other techniques, without additional purification steps.

Using Argylla Technologies' **nanoPurify Kit**, this system works very well. The fluorescent DNA tracking probe does not interfere with traditional PCR. We have found this to be an excellent system to separate larger pieces of DNA from smaller fragments of nucleic acids that tend to inhibit PCR. The dye may interfere with quantifying DNA concentration either by PicoGreen or by UV absorbance as measured by the NanoDrop spectrophotometer. We tested our ability to remove the fluorescent dye from two different sizes of PCR amplified DNA isolated from the Lonza recovery wells.



Two representative nanodrop spectra of the two PCR amplicons are shown. Can our product be trusted with very small samples?

- Lonza recovery gels were used to separate PCR amplicons from dNTPs, template DNA, primers, and Taq polymerase.
- Our product was used to separate the fluorescent dye from the recovered amplicon DNA.
- This removed the fluorescent probe so that the concentration could be measured using PicoGreen (Molecular Probes, Eugene, OR).
- 1-2ng aliquots of this purified DNA were spiked into Fresh Lonza recovery as well as recovery buffer that had been allowed to mix with running buffer in the center recovery wells as part of simulated electrophoresis. The average percent yield when the four groups (fresh recovery buffer, simulated used, 551bp amplicon, 746bp amplicon) were combined is 90% ± 36%. Slight variations in measurements are lightly to be due to evaporation in the dry climate of Arizona.

Are there other EtOH soluble organic molecules that you would like to separate from your DNA? If so, let Argylla Technologies help you modify our protocol to suit your needs.

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