Gel Extraction

By Penn iGEM 2013 (Using QIAGEN information)

Goal: Run digested DNA on a gel to confirm and extract the DNA from that gel.

Protocol:

1) Create 0.8% Gel
    a. Weigh out 0.4g agarose and add to beaker
    b. Measure 50mL TAE and add to beaker
    c. Microwave until solution clear
    d. Add 5uL Syber Safe to solution
    e. Pour into casting mold. Use large comb for gel extraction
2) Add 10uL loading dye to 50mL digest, mix well and load.
3) Run gel on 120 volts for 30 min
4) Extract gel slice with clean knife, be sure to cut close to avoid excess agarose
5) Weigh gel in colorless tube
    a. Calculate volume (100uL=100mg)
6) Add 3 volumes of Buffer QG to 1 volume of gel
7) Incubate at 50 degrees C for 10 min, vortex every 3 min
8) Be sure solution is yellow before proceeding.
9) Add 1 gel volume of isopropanol, pipet up and down
10) Apply sample to QIAquick spin column
11) Add 0.75 mL PE, centrifuge for 1 min
12) Discard flow through, centrifuge again
13) Place column into clean 1.5mL microcentrifuge tube
14) Elute with 35uL of Eb
15) Nanodrop for yield