Rationale:	
Special Observations:	
Results:	
Interpretation:	

Experiment Date:
Experiment Time:

Source: Rafael, Nathan Kruer-Zerhusen, Dujduan Waraho

Primary Experimenter (contact):
Other Experimenters:
Image Filename:

Assembled: 6/27/2012

Reagent	Details	Quantity
Agarose		1%
1X TAE	Used for making gel, running buffer, and dilutions of samples	50 mL
EtBr	For post-staining	n/a
Ladder* (premixed with dye)	(brand; size)	6 ☐L
6X Loading Dye	1 ul dye for 5 ul DNA	** **X**☐L
DNA samples	See below chart for details	* ☐L

*For fragments ≤1kb, use NEB 2-log ladder for clearer visualization of fragment size.

$$(X\mu L) = \frac{\mu L\, sample}{4}$$

Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8	Lane 9	Lane 10

Procedure:

Critical Steps:

- Swirl agarose to make sure that all is melted (but not too vigorously to avoid bubbles)

The following is for a 1% Gel

- **Measure 0.5 g agarose and add to flask**
- **Add 50 mL 1X TAE to the flask**
- **Cover flask with saran wrap (should be on top of the microwave)**
- **Microwave the agarose for 1:00, or until all agarose is dissolved and the solution is completely clear and bubbling**
    - If the agarose is still suspended/undissolved, microwave for additional 10-20 seconds
    - CAREFUL, bottle will be extremely hot, watch out for steam coming from the bottle, hot gloves should be by the microwave
- **Obtain gel tray, box, and comb, then rinse with dH2O**
    - Comb size depends on experiment
- **Place gel tray in gel box sideways – the tray's rubber gasket should make a watertight seal against the gel box**
    - Make sure the gasket hasn't derailed
- **Insert gel comb**
- **Pour hot agarose solution carefully into mold**
- **Use a sterile pipette tip to sweep bubbles away from the important parts of the gel, then cover the gel while it cools to prevent debris from falling in**
- **Prepare DNA samples with dye & appropriate volume (at least 200 ng for visualization, avoid more than 1 ug if you need to distinguish between similarly sized fragments)**
- **When agarose has completely solidified, gently pull tray out of box, rotate tray, then re-insert tray so the wells are on the black side**
- **Pour 1X TAE into the box until it just covers the lanes**
- **Record locations of samples, load accordingly, and run at 100 V for 50 mins (alternatively, 80V for 60-75 mins)**
- **Soak in EtBr bath for 20-30 mins then image according to posted instructions**