Protocol for Agarose Gel Electrophoresis

Weigh moderate agarose powder and 1xTAE buffer;

Add agarose powder and 1xTAE buffer to a flask;

Heat up until the solution is homogeneous, avoiding boiling. If it boils, move away from the heat until it "calms down" and put it back on the heat until the agarose is completely dissolved.

While heating, prepare the bed in which the gel will polymerize. Make sure that it is well balanced and tight, and that the "comb" is well placed.

When homogeneous, add 2 µL of SYBR SAFE DNA Gel Stain to the solution and mix well.

Pour the solution into the bed and clear all its bubbles with a tip.

Carefully pull out the "comb";

Place the gel in the electrophoresis chamber;

Add enough TAE Buffer so that there is about 2-3 mm of buffer over the gel;

Mix the samples with loading dye in a 10:1 ratio.

Put the samples into the wells, as well as marker into the first well.

Run the gel at 120V for about 30 minutes;

Note: For different size of gels, we have 25 ml, 50 ml and 100 ml agarose gel. And we often use 0.7%, 1% and 1.5% agarose gel for different samples.