

Protocol for testing DNA concentration and quality using 1% agarose gel

1. Assemble the gel apparatus; Arrange three rows of combs to maximize the capacity;
2. Make gel by adding:
 - 1.5g of agarose;
 - 150 ml of 1XTAECook the gel in microwave and let it cool for 5 minutes before pouring;
3. Prepare loading buffer mix:
 - 120 ul of 6X loading buffer;
 - 360 ul of water;
 - 3 ul of EtBr;Aliquote 4 ul into a 96-well plate;
Take 45ul loading mix to separate tube and add 9 ul of pGEM standard;
4. Choose DNA to be tested, record the order and sample names, add 2 ul to the loading buffer, centrifuge briefly to mix;
5. Load 6 ul pGEM standard mix at the both ends of each lane, then load all 6ul of samples in order onto the gel; Arrange the samples that at least three plates could be checked each row;
6. Let run for 45 min at 120V;
7. Visualize using UV light and take picture, save the gel picture and print a copy;
8. Determine amount of DNA for sequencing based on the intensity of the band in comparison to pGEM.