Agarose Gel Electrophoresis

Use 1% agarose (i.e. 0.5g/50ml of 1X TAE buffer). 1X TAE can be prepared from 50X stock (as 20ml of the stock in 1L water). Use 1X buffer in the tank too.

Boil the dissolved gel for 3min in microwave and cool up for 5min prior to adding 2µl of ethidium bromide stock (10mg/ml)/50ml gel. Pour the ethidium bromide containing gel on the tray and place the comb. Let it solidify for at least 10min and remove the comb. Submerge the well made gel in the 1X buffer in the tank.

For low mass ladder, use total volume of 6µl (2 µl DNA, 1µl of 6X loading buffer and 3µl water). The low mass ladder (invitrogen) will give 6 discrete bands with specific weigh when added as 2µl DNA in 6µl final volume [100bp (5ng), 200bp (10ng), 400bp (20ng), 800bp (40ng), 1200bp (60ng) and 2000bp (100ng)].

* For miniprep preparation of vectors, use final volume of 18µl (2µl DNA, 13µl water and 3µl of 6X loading buffer).

* For PCR product, use 15 µl of amplified product + 3µl of 6X loading dye.

****