Rewrite

Linguistics, English

Experiment Experiment The initial step of the experiment involved the transformation of Escherichia coli cells using pGLO plasmid to yield adequate quantity of GFP to help in purification and analysis. However, Escherichia coli only expressed GFP in a medium with arabinose, consisting of 302 colonies in +pGLO LB/amp/ara plate. The resultant frequency of transformation was estimated at 1920 transformants/µg of DNA. This value was within the anticipated range of 800-7000 transformants/µg of DNA, thus the transformation process was successful.

The next step involved extracting, purification and analysis of the transformed bacterial cells' GFP. The post-purified GFP sample concentration was estimate was 321. 3µg/ml, which was far much below the pre-purified sample concentration of 924. 3µg/ml. this indicated that 65% of pre-purified sample proteins were filtered through hydrophobic interaction chromatography. The native molecular weight was estimated to be 41. 8 kDa while denatured GFP molecular weight was estimated to be equal to 31. 9 kDa. Evidently, the molecular weight of the jellyfish GFP ranging between 27-30 kDa was lower than the values 41. 8 kDa and 31. 9 kDa of native and denatured GFP respectively. The discrepancy can be attributed to inadequate purification from HIC.