

BIOTECHNOLOGY

Professional Training Program

atg 2 : rDNA Technology

Complete Protocols in Genetic Engineering And Recombinant DNA technology



Course coordinator – **DEVENDRA LINGOJWAR** Director, ATG LAB

1. Nucleic acid isolation: DNA extraction by DNazol method
2. Polymerase Chain Reaction: Nested (two step) viral PCR (biologically safe for students handling, non hazardous DNA virus) by **Biorad gradient thermal cycler**
3. Agarose gel electrophoresis: For DNA separation and visualization under **Biorad** Gel documentation system
4. Restriction digestion: By Eco RI restriction endonuclease
5. Ligation : By T4 DNA ligase
6. Cultivation of bacteria: Subculture of *E. Coli* from stock culture
7. Log phase culture preparation: Preparation of *E. coli* (host cells) in log phase stage
8. Host vector preparation: Competent cell preparation by CaCl₂ method & pUC 18 plasmid preparation
9. Transformation: Addition of plasmid into competent *E. coli*
10. Screening of transformants: Observation of colonies and calculation of transformation efficiency
11. SDS PAGE: For separation of proteins by **Biorad Mini tetra cell PAGE System**
12. Western blot: For detection of protein by antibody based assay by **Biorad Western blotting system**
14. Trouble shooting and calculations
15. Theory (Power point): DNA electrophoresis, PCR Basic concepts, PCR types, PCR based molecular diagnostics

Duration: 30 days; **Registration:** Rs. 500/-

For joining ATG Training program, register in advance. BY SENDING FOLLOWING DOCUMENTS

1. Completely filled registration form with colored photograph
2. DD of Rs. 500/- in favor of “DEVENDRA LINGOJWAR” payable at Pune,
3. Letter from college / institute authority in case if you are student, or from Director if you are employee,
4. CV with address and contact number,
5. Address proof from college/ institution’s authority

For more details

Contact

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