

343 Recombinant DNA Technology

Item Text	Option Text 1	Option Text 2	Option Text 3	Option Text 4
The Nobel Prize in Medicine was awarded in 1978 to _____ and _____ for the discovery of restriction endonucleases.	Watson and Crick	W. Arber and H. Smith	E. Southern and P. Werner	Gilbert and Sanger
The process of using biotechnology to alter the genetic makeup of an organism is called as _____	Therapeutic cloning	Genetic engineering	Reproductive cloning	Gene therapy
Which of the following is NOT the DNA manipulative enzymes?	Endo nucleases	Ligases	Polymerases	Dehydrogenases
The enzyme which has the ability to synthesize the DNA strand complementary to RNA strand is	Taq polymerase	Klenow fragment	Reverse transcriptase	Okazaki fragment
Which of the following is NOT the property of the vector molecule?	presence of selectable marker	Presence of origin of replication	low Molecular Weight	low compatibility
The commonly used bacteriophages for construction vectors are :	Lambda and M13 bacteriophage	T even and T odd bacteriophages	lambda and T even bacteriophage	T even and M13 bacteriophages
T-DNA is	DNA from plasmid introduced into Agrobacterium	DNA from plasmid introduced into plant cells	Chromosomal DNA introduced into Agrobacterium	Chromosomal DNA introduced into plant cells
Biolistic method is an example of _____ method of gene transfer.	physical	chemical	biological	biochemical
Purity of DNA is considered by calculating ratio of absorbance obtained at _____ and _____ nm	250 and 280	260 and 280	180 and 280	210 and 260

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During DNA extraction, _____ is included in buffers to chelate divalent cations required for activity of endonucleases.	Ethylene diamine tetra acetic acid	Ethidium bromide	sodium dodecyl sulphate	CTAB
Maxam-Gilbert method involves	Base specific cleavage by chemicals	Use of radioactive compound	Use of base analogs	Use of dideoxynucleotides
Sanger's method involves	Base specific cleavage by chemicals	Use of radioactive compound	Use of base analogs	Use of dideoxynucleotides
Identify the palindromic sequence from the following	5' GAATTC 3'	5' GAATTA 3'	5' GAAAAG 3'	5' GAAGAA3'
Which of the following enzymes in bacteria are responsible for restricting the growth of viruses?	restriction endonuclease	topoisomerase	gyrase	protease
In shotgun experiment usually the enzymes of choice are	any combination of restriction enzymes	only one type of restriction enzyme	combination of restriction enzymes having 6bp recognition site	combination of restriction enzymes having 4 bp recognition site
If the genome size is small, the number of clones in the genomic library is	less	more	all genomes produce equal number of clones	the number of clones is independent of the genome size
Taq polymerase is a ----- polymerase.	heat-stable	buffering	denaturant	large
A genomic library is a collection of -----	Genes	Proteins	Vectors	Recombinants

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cDNA is synthesized from	DNA	mRNA	Genes	proteins
Which is the key enzyme in cDNA synthesis?	Endonuclease	DNA polymerase	RNA polymerase	Reverse transcriptase