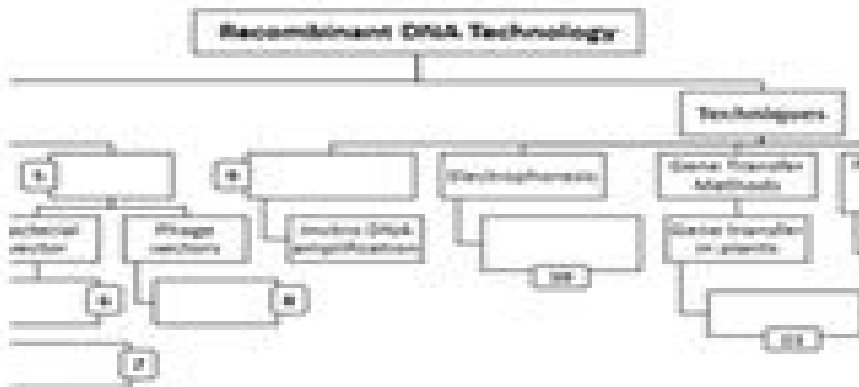


Recombinant DNA Technology

Recombinant DNA Technology Worksheet

Fill the numbered boxes with correct word from the word bank.



Steps in rDNA Technology Worksheet

Name: _____

Date: _____

Steps in the production of recombinant insulin:
Fill up the blanks using the correct word from the word bank.

Step 1: Identification & isolation of a gene or DNA fragment to be cloned.

Source of gene:

1. _____
2. cDNA library
3. _____

Step 2: Insertion of the isolated gene in a suitable vector.

Cloning vector:

1. Plasmid
2. _____
3. Lambda phage
4. _____
5. _____

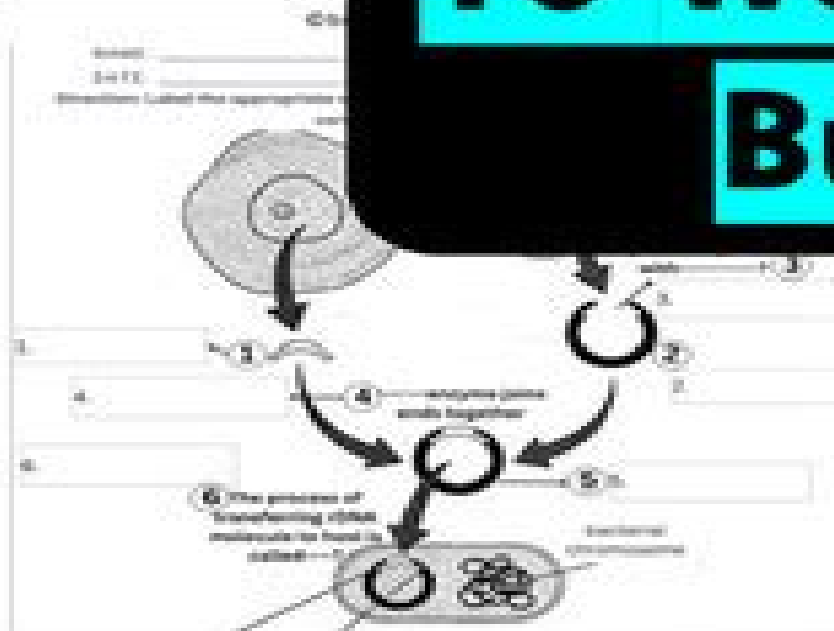
Step 3: Introduction of this vector into a suitable organism/ cell called host.

Gene transfer methods:

1. Agrobacterium mediated
2. _____
3. Microinjection
4. Electroporation
5. PEG and CaCl₂

10 Worksheets Bundle

88322 - Chemical gene transfer
Polymerase Chain Reaction



1. Which enzyme joins the DNA fragments by forming phosphodiester bond?

- A) ☐ Alkaline Phosphatase
- B) ☐ Terminal Nucleotidyl Transferase
- C) ☐ Ligase
- D) ☐ Restriction Nucleotidase

2. Which enzyme is involved in DNA elongation?

- A) ☐ Terminal Nucleotidyl Transferase
- B) ☐ DNA polymerase
- C) ☐ Reverse Transcriptase
- D) ☐ Restriction Nucleotidase

3. The enzyme that adds phosphate to 5'OH group of the fragment about to be joined is

- A) ☐ Terminal Nucleotidase
- B) ☐ Alkaline Phosphatase
- C) ☐ DNA polymerase
- D) ☐ Ligase

4. Which enzyme adds nucleotides to 3'OH group of the fragment?

- A) ☐ Ligase
- B) ☐ Terminal Nucleotidyl Transferase
- C) ☐ DNA polymerase
- D) ☐ Restriction Nucleotidase

Recombinant Dna Teacher Guide And Answers

**Marcia L. Gillette,Ira Blei,Wendy
Gloffke,George Odian**



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