X

Unit 11 - Week 9

Register for Certification exam

Course outline

How to access the portal

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Lecture 38 : Isolation and Characterization of DNA Part - I

Lecture 39 : Isolation and Characterization of DNA Part - II

Lecture 40 : Bacterial Culture for

Assignment 9

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment. **Due on 2019-04-03, 23:59 IST.**

1) To lyse the bacterial cell wall for extraction of DNA, which of the following reagents is commonly used? ***1 point***

- a. Lysozyme
- b. Phenol
- c. Penicillin
- d. Cetrimonium bromide

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. Lysozyme

2) Isolation of DNA from plant sources possess challenges due to the presence of ***1 point***

- a. high amount of RNA
- b. high amount of protein
- c. presence of polysaccharide and secondary metabolites
- d. low amount of DNA

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. presence of polysaccharide and secondary metabolites

3) The function of EDTA during cell lysis is to ***1 point***

- a. act as metal chelating agent
- b. inhibit cellular enzymes that degrade DNA
- c. destabilize the cell wall

a. Denature genomic and plasmid DNA.
b. Break down the cell wall.
c. Degrades the RNA.
d. Remove proteins from the cell lysate.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. Denature genomic and plasmid DNA.
b. Break down the cell wall.

5) RNase A degrades RNA that are present in cell lysate. What will happen if RNase A treatment is not done during DNA isolation? ***1 point***

a. DNA will get degraded.
b. RNA will not be removed and as both DNA and RNA absorbs at 260nm, quantification of isolated pure DNA will be problematic.
c. Both DNA and RNA will form complex and precipitate out of the solution.
d. All of the above.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. RNA will not be removed and as both DNA and RNA absorbs at 260nm, quantification of isolated pure DNA will be problematic.

6) What is the role of SDS in lysis buffer for plasmid DNA isolation? ***1 point***

a. Solubilizes the membrane.
b. Denatures the proteins.
c. Disrupts DNA-Protein complexes.
d. All of the above.

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. All of the above.

7) What is the purpose of plasmid isolation? ***1 point***

a. Cloning
b. Gene expression
c. Vehicle for delivering target DNA in another organism
d. All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. All of the above

8) Isolating plasmid DNA from genomic DNA is based upon ***1 point***

a. conformation
b. charge difference
c. size difference
d. cellular location

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. conformation
c. size difference

9) The neutralizing buffer used in plasmid isolation contains **1 point**

- a. triton-X
- b. potassium/sodium acetate
- c. SDS
- d. phenol

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. potassium/sodium acetate

10) When neutralizing buffer is added after lysis to the cell lysate **1 point**

- a. Chromosomal DNA gets tangled and precipitates out.
- b. Plasmid DNA anneals and remains in the solution.
- c. Proteins and SDS forms insoluble precipitate.
- d. All of the above.

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. All of the above.

11) DNA bound to silica membrane can be eluted out by addition of **1 point**

- a. Water
- b. Tris pH 6.0
- c. Isopropanol
- d. 0.5% SDS solution

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. Water

12) To wash the DNA bound to silica membrane which of the following reagents are used? **1 point**

- a. Tris pH 8.0
- b. Deionized water
- c. Ethanol/Isopropanol
- d. Detergents

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. Ethanol/Isopropanol

13) Quality of the purified plasmid DNA has to be checked by **1 point**

- a. Size exclusion chromatography

- b. Agarose gel electrophoresis
- c. Polyacrylamide gel electrophoresis
- d. UV spectroscopy

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. Agarose gel electrophoresis
d. UV spectroscopy

14) The quantity of the purified DNA can be estimated by measuring absorbance at ***1 point***

- a. 260nm
- b. 280nm
- c. 560nm
- d. 190nm

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. 260nm

15) In agarose gel electrophoresis, the plasmid DNA runs ahead of linear DNA as ***1 point***

- a. Linear DNA is more compact
- b. Plasmids have higher mass/charge ratio
- c. Plasmids are supercoiled and migrates faster
- d. All the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. Plasmids are supercoiled and migrates faster

Previous Page End