

Unit 11 - Week 9: Chemical Synthesis of Peptides and its therapeutic applications; Spectroscopic techniques for biomolecules.

Course outline

How does an NPTEL online course work?

Week 0: Prerequisite

Week 1: Nucleic acids and proteins

Week 2: Nucleic acids and proteins

Week 3 : Synthesis of Nucleobases and Nucleotides

Week 4 : DNA Replication, Polymerases, DNA Sequencing and PCR

Week 5 : DNA Replication, Polymerases, DNA Sequencing and PCR

Week 6: DNA damage, mutation and cancer

Week 7: DNA to proteins: transcription, translation and genetic code`

Week 8: Protein Sequencing and Solid Phase Peptide Synthesis (SPPS)

Week 9: Chemical Synthesis of Peptides and its therapeutic applications; Spectroscopic techniques for biomolecules.

- Lecture 26: Solution phase peptide synthesis : mechanism and end protection
- Lecture 27: Peptide coupling agents, Solid phase synthesis, peptide based therapeutics
- Lecture 28: Spectroscopic techniques
- Weekly feedback form for week 9

Quiz : Assignment 9

Lecture notes: Week 9

Week 10: Modern techniques for biomolecules study, purification and characterization; Molecular probes

Week 11: Molecular probes and Chemistry of carbohydrates

Week 12: Chemistry of carbohydrates and Recap

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Assignment 9

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-04-01, 23:59 IST.

1) Which of the following peptides can penetrate the cell barriers?

2 points

- CREKA and Polylysine
 Polylysine and polyarginine
 CREKA and NGR
 All the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Polylysine and polyarginine

2) _____ is used for F-moc deprotection and _____ is used for ester deprotection.

2 points

- NaOH and TFA
 TFA and NaOH
 Piperidine and TFA
 Piperidine and NaOH

No, the answer is incorrect.
Score: 0

Accepted Answers:
Piperidine and NaOH

3) Which of the following is/are peptide coupling agents?

1 point

- DCC
 BOP
 boc-anhydride
 HBTU

No, the answer is incorrect.
Score: 0

Accepted Answers:
DCC
BOP
HBTU

4) The peptide coupling agents activates which group in an amino acid?

1 point

- amine group
 carboxylic group
 Both amine and carboxylic group

No, the answer is incorrect.
Score: 0

Accepted Answers:
carboxylic group

5) Which of the following statements is/are true for solid phase peptide synthesis (SPPS)

2 points

- Synthesis of long amino acid sequences
 Minimized racemization
 Ease in purification
 All the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All the above

6) Which peptides are used in the Alzheimer?

2 points

- Beta-sheet breakers
 CPP
 Blood brain barrier peptides

No, the answer is incorrect.
Score: 0

Accepted Answers:
Beta-sheet breakers