FREQUENTLY ASKED QUESTIONS (FAQs)

Q1.What do you mean by "Immobilization"?

Answer: It is the imprisonment of free or soluble enzymes to different types of supports resulting in reduction or loss of mobility of enzyme that allows its interaction with substrate effectors or inhibitor molecules but it is separate from them.

Q2.When can we use enzyme for immobilization?

Answer: When, the reaction is a single step When, co-enzyme is not involved When, there is use of single enzyme

Q3. What are the benefits of enzyme immobilization?

- Answer: It is Cost effective
 - It requires smaller reactor It needs shorter process time

Q4. What should be immobilized - cell or enzyme?

Answer: The selection of immobilization of cell or enzyme depends on so many criteria like number of step in the process requirement of coenzyme importance of contaminating reactions, cost, stability, and catalytic specificity.

Q5. List some potential advantages of immobilized enzymes ?

Answer: Greater productivity per unit of enzyme .

Precise control over the reaction.

Recovery of enzyme free product.

Enzyme activity may be enhanced and/or stabilized.

Q6. Why Enzymatic synthesis of Aspartame (artificial sweetener) is preferred over its chemical synthesis?

Answer: Chemical synthesis of Aspartame results in the formation of an optical isomer that has a bitter taste. So enzymatic synthesis is preferred in which no such isomer is formed.

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Q7. Name the commercial source of the enzyme for Aspartame synthesis?

Answer: The commercial source of the enzyme for Aspartame synthesis is derived from Bacillus thermoproteolyticus.

Q8. Why Econa Cooking Oil is labeled as healthy oil?

Answer: Econa Cooking Oil is made enzymatically from natural oil using immobilized lipases. This product is marketed as healthy oil since diacylglycerol (DAG) in it aids in the maintenance or loss of weight and fat mass, may lower the level of cholesterol in the body and may help maintain healthy triacylglycerol levels. DAG is digested and absorbed in the small intestine and is consumed as energy without resynthesizing into a neutral fat like conventional oil. As a result, it reduces the level of neutral fat in the blood compared with conventional oil