

Learning Target: I can describe the properties of enzymes.

AP Biology Topic 2.1 Enzyme Structure

1. Enzymes are _____
2. Most enzymes are _____
 - Tertiary shape must be _____
 - Have a region called _____
3. The active site interacts with the _____.
 - A molecule that can interact with an enzyme is called _____
 - Enzymes have an _____, specifically interacts with _____
 - Has a unique shape and size
 - Can have _____ or not
 - Physical and chemical properties of the _____
 - Slight changes can occur to align with _____
 - Enzyme names often indicate the _____
 - Not _____ by the reaction
 - Cells typically maintain a _____
 - Enzymes can facilitate _____

Lesson Skill Focus: Concept Explanation

A researcher wants to study the hydrolysis of amylose, a polar carbohydrate polymer. Salivary amylase is an enzyme found in human saliva. Salivary amylase hydrolyzes amylose into glucose. Amylase has a polar active site region. The researcher isolates amylase from saliva and measures the rate of glucose production when amylose is added.

Based on this study, which of the following statements best explains the chemical interaction between amylose and salivary amylase?

- A. Amylase is compatible with glucose allowing for amylose polymers to be produced.
- B. Amylase has a polar active site and amylose is nonpolar allowing for an attraction.
- C. Amylase changes from a tertiary structure to a primary structure allowing amylose to enter the active site.
- D. Amylase active sites have similar chemical properties to amylose allowing glucose products to form.

Explain why this is the right answer.....