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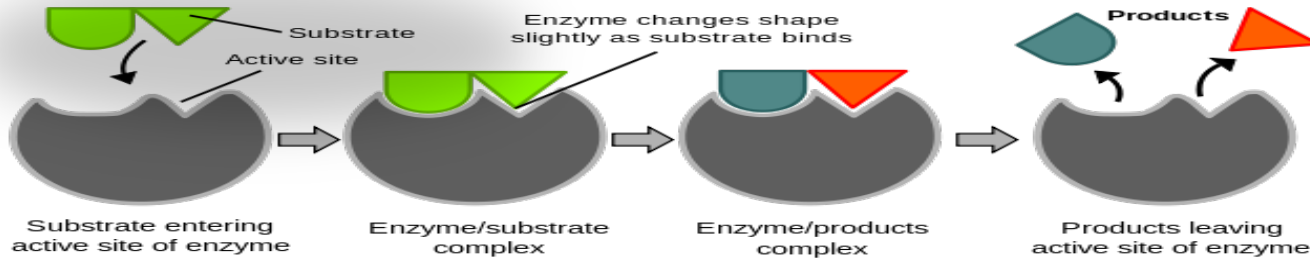
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Meet the
Enzyme:
Bromelain

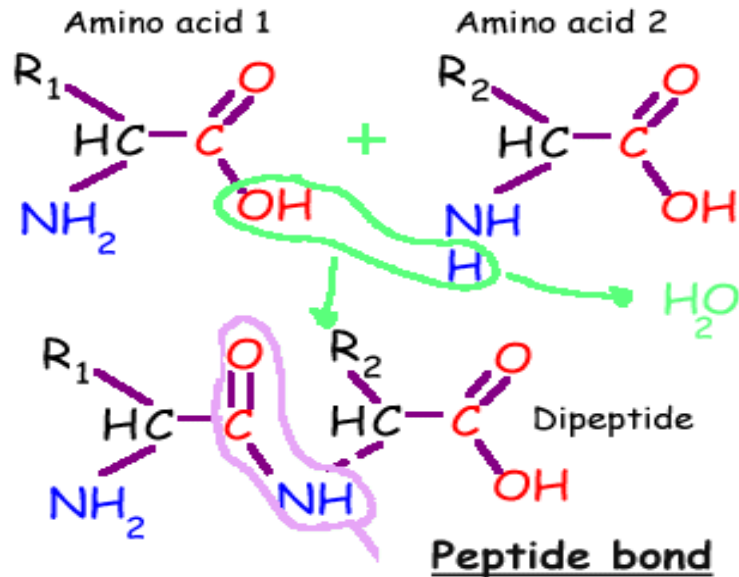


Meet the Enzyme: Bromelain

- Pineapple contains enzyme **bromelain**.
- Bromelain is a protease. It digests (breaks down) proteins into its component building blocks.
- **Q:** What are the building blocks of protein?



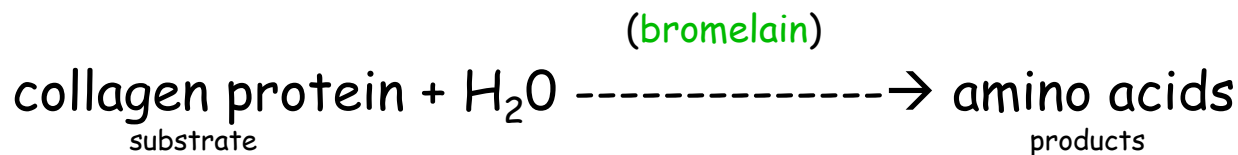
Meet the Enzyme: Bromelain



Bromelain is a **protease enzyme** that facilitates hydrolysis of protein.

Remember, hydrolysis cuts molecule by adding water...the reverse of the hydration synthesis pictured to the left.

Reaction:



Meet the Enzyme: Bromelain

- Jell-O® is made of *gelatin*, a processed version of a structural **protein** called **collagen** found in many animals, including humans.
- Collagen = big, fibrous molecule makes skin, bones, and tendons both strong and elastic.
- Gelatin you eat usually comes from the collagen found in cow, chicken or pig skin, bones and connective tissues. (*Yummie!*)



Meet the Enzyme: Bromelain

- Pineapple contains enzyme **bromelain**, which can digest protein. (*It is a protease.*)
- Jell-O® is made of *gelatin*, a processed version of a structural **protein** called **collagen** found in many animals, including humans.
- Examine 2 containers:
 - a. In one, canned pineapple was used to make Jell-O®.
 - b. The other, fresh pineapple was used.



Q: Why is one gelatin solid and the other liquid?

FYI: Bromelain is used as a meat tenderizer. It breaks down the collagen in meat. So what do you think could happen to your tongue when you eat lots of fresh pineapple?

