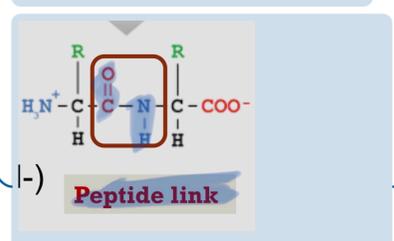


# Protein

## Definition

Organic complex nitrogenous compounds Formed of C, H, O, N (+/- S)

Forming polymers (chains) of amino acids = (polypeptides)



Ends of the polypeptide chain:  
 - COOH group at one end → called C-terminal  
 - NH2 group at the other end → called N-terminal

## Biological importance

- Enzymes
- Hormones (protein hormones)
- Hemoglobin
- Plasma protein (lipoproteins)
- Immunoglobulins (antibodies)
- Supporting structure (cartilage, skin, nail, hair, et)

## Classification

**A) Simple proteins**  
 Definition: They are proteins that on hydrolysis gives only amino acids  
 Types: (1) Albumin, Globulin, Histone, Globulin, Protone, Proteone, Albuminoids

Simple proteins

Formed only of amino acids



**B) Conjugated (Compound) protein**  
 Definition: They are protein conjugate with non protein part (other groups)  
 Types of conjugated proteins: (2)

Conjugated (compound) proteins

Formed from protein + non protein part

**C) Derived protein**  
 Definition: These are the denatured or hydrolytic products of simple or conjugated proteins  
 Types of derived proteins: (2)

Derived proteins

Product of hydrolysis of simple or compound protein