

## 2. Plasma Proteins

Plasma proteins perform many functions in the body, including:

- **Transport:** Plasma proteins transport nutrients, hormones, lipids, vitamins, and drugs throughout the body
- **Blood clotting:** Plasma proteins like fibrinogen help form blood clots
- **Immunity:** Plasma proteins help the body's immune system, including specific immunity and non-specific immunity
- **Acid-base balance:** Plasma proteins help maintain the body's pH balance
- **Oncotic pressure:** Plasma proteins help maintain oncotic pressure
- **Nutrition:** Plasma proteins help with nutrition
- **Heat distribution:** Plasma proteins help distribute heat throughout the body
- **Blood pressure:** Plasma proteins help maintain blood pressure
- **Blood volume:** Plasma proteins help maintain blood volume
- **Waste removal:** Plasma proteins help remove waste products from the body
- **Gene expression:** Plasma proteins help regulate gene expression

Some examples of plasma proteins include:

- **Albumins:** Create and maintain osmotic pressure and transport insoluble molecules
- **Globulins:** Participate in the immune system
- **Fibrinogen:** A soluble plasma clotting factor precursor that converts to fibrin, a threadlike protein that traps platelets
- **Regulatory proteins:** Regulate gene expression