

FERRITIN

Ferritin is a protein complex found in cells that serves as the primary storage form of iron in the body. It acts as a buffer against iron deficiency and overload by storing excess iron in a non-toxic form and releasing it when needed to maintain normal iron levels in cells and tissues. In essence, ferritin plays a crucial role in regulating iron metabolism and ensuring its availability for various cellular processes while preventing iron toxicity.

Low levels of Ferritin:

Low levels of ferritin in the body typically indicate depleted iron stores. This condition is known as iron deficiency. Ferritin levels are often used as a biomarker to assess iron status because ferritin stores iron and reflects the amount of iron stored in the body. When ferritin levels are low, it suggests that the body's iron stores are also low, which can lead to symptoms such as fatigue, weakness, pale skin, shortness of breath, and difficulty concentrating. Iron deficiency can result from insufficient dietary intake of iron, blood loss (such as from menstruation or gastrointestinal bleeding), malabsorption disorders, or increased iron requirements (such as during pregnancy or growth spurts).

It is essential to identify and treat the underlying cause of low ferritin levels to prevent complications and restore optimal iron status. Treatment typically involves iron supplementation and addressing the root cause of the deficiency.

High levels of Ferritin:

High levels of ferritin in the body can indicate several potential conditions, including:

- Iron overload disorders like hemochromatosis, where the body absorbs too much iron.
- Liver diseases such as hepatitis, liver cancer, or alcoholic liver disease.
- Inflammatory conditions such as rheumatoid arthritis, systemic lupus erythematosus, or inflammatory bowel disease.
- Certain cancers, including leukemia, lymphoma, or multiple myeloma.
- Chronic kidney disease.
- Infections, particularly bacterial infections.
- Hemolytic anemia, where red blood cells are destroyed faster than they are produced.