

Recombinant Human Apoferritin (H+L Chains) Protein

Cat. No. FTH1-28156TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Apoferritin (H+L Chains) without tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	Ferritin is a water-soluble, iron storage protein found in most animal cells. Its spherical structure is composed of 24 subunits and contains a 7-nm cavity with a ferric oxyhydroxide crystalline core that is capable of storing approximately 4500 iron atoms. Iron passes in and out of the ferritin cavity through 0.7-1.0 nm pores in the outer shell. Up to 25 ferritin isoforms are thought to exist, composed of various combinations of the two primary subunits, H and L, which have molecular weights of 21,000 and 19,000, respectively. Ferritin rich in the H subunit is found in heart muscle, red blood cells, lymphocytes, and monocytes, while that rich in the L subunit is found in the liver, spleen, and placenta. Ferritins composed of a higher proportion of H subunits are more acidic (pI as low as 4.8) than the isoforms containing a higher proportion of L subunits (pI 5.3-5.8) Human serum ferritin is primarily composed of the L subunit, which also corresponds with a lower iron content. Ferritin isolated from the liver and spleen contain >12% iron by weight. Ferritin is the body's primary iron source for hemoglobin synthesis; only hemoglobin itself accounts for more of the body's total iron content. When serum iron levels decrease below normal levels, ferritin readily releases its iron stores for use. Serum levels of ferritin are known to closely parallel tissue ferritin levels and are, therefore, indicative of body iron content. As such, clinical tests for ferritin serum levels are used to detect and manage iron-

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related disorders, such as iron deficiency anemia and iron overload. High levels of serum ferritin are associated with disease severity in Covid-19 patients, in addition to various malignant diseases and tissue damage.

Form

Clear liquid-Buffer: 10mM Tris, 150mM Sodium Chloride, 0.02% Sodium Azide, pH 8.0 ± 0.1

Purity

≥95% by SDS-PAGE

Notes

This product is not considered a biohazard. Handle using normal laboratory procedures. For Research Use or Further Manufacture Only. Not for Use in Diagnostic Procedures.

Storage

Product is shipped using a refrigerated gel pack (not temperature monitored). On arrival, store refrigerated at 2 to 8 centigrade. Do not freeze!

Concentration

1.0-5.0 mg/mL

GENE INFORMATION

Gene Name

FTH1 ferritin heavy chain 1 [Homo sapiens (human)]

Official Symbol

FTH1

Synonyms

FTH1; ferritin, heavy polypeptide 1; FTHL6; ferritin heavy chain; apoferritin; FHC; FTH; PIG15; placenta immunoregulatory factor; PLIF; proliferation inducing protein 15; ferritin H subunit; proliferation-inducing protein 15; cell proliferation-inducing gene 15 protein; MGC104426;

Gene ID

2495

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mRNA Refseq	NM_002032
Protein Refseq	NP_002023
MIM	134770
UniProt ID	P02794

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