

Human FTH1 Protein

Catalog Number: 13217-HNAE



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

FHC; FTH; FTHL6; HFE5; PIG15; PLIF; FHC; Fth; HfT; MFH

Protein Construction:

A DNA sequence encoding the human FTH1 (P02794) (Met 1-Ser183) was expressed and purified.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met 1

Molecular Mass:

The recombinant human FTH1 consists of 183 amino acids and has a calculated molecular mass of 21.2KDa as estimated in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

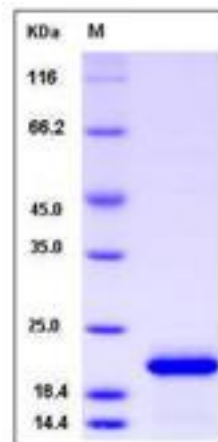
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

FTH1 (ferritin, heavy polypeptide 1) is the heavy subunit of ferritin which is the major intracellular iron storage protein in prokaryotes and eukaryotes. It is composed of 24 subunits of the heavy and light ferritin chains. Variation in ferritin subunit composition may affect the rates of iron uptake and release in different tissues. A major function of ferritin is the storage of iron in a soluble and nontoxic state. Defects in ferritin proteins are associated with several neurodegenerative diseases. FTH1 gene has multiple pseudogenes. Several alternatively spliced transcript variants have been observed, but their biological validity has not been determined. FTH1 stores iron in a soluble, non-toxic, readily available form. It is important for iron homeostasis. It has ferroxidase activity. Iron is taken up in the ferrous form and deposited as ferric hydroxides after oxidation. It also plays a role in delivery of iron to cells. FTH1 mediates iron uptake in capsule cells of the developing kidney.

References

- 1.Hentze MW, *et al.* (1986) Cloning, characterization, expression, and chromosomal localization of a human ferritin heavy-chain gene. *Proc Natl Acad Sci.* 83(19):7226-30.
- 2.Rual, *et al.* (2005) Towards a proteome-scale map of the human protein-protein interaction network. *Nature.* 437(7062):1173-8.
- 3.Stelzl, *et al.* (2005) A human protein-protein interaction network: a resource for annotating the proteome. *Cell.* 122(6):957-968.

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