


## Recombinant Human FTH

Catalog#:P00436 Derived from *E.coli*

<b>DESCRIPTION</b>	Recombinant Human Ferritin Heavy Chain is produced by our <i>E.coli</i> expression system and the target gene encoding Met1-Ser183 is expressed. <b>Accession#:</b> P02794 <b>Known as:</b> Ferritin heavy chain; FTH1; FTH; FTHL6; Ferritin H subunit; Cell proliferation-inducing gene 15 protein																								
<b>FORMULATION</b>	Lyophilized from a 0.2 $\mu$ m filtered solution of 20mM PB, 150mM NaCl, pH 7.4.																								
<b>SHIPPING</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.																								
<b>STORAGE</b>	Lyophilized protein should be stored at $\leq -20^{\circ}\text{C}$ , stable for one year after receipt. Reconstituted protein solution can be stored at 2-8 $^{\circ}\text{C}$ for 2-7 days. Aliquots of reconstituted samples are stable at $\leq -20^{\circ}\text{C}$ for 3 months.																								
<b>RECONSTITUTION</b>	<i>Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100<math>\mu\text{g/ml}</math>.</i> Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.																								
<b>QUALITY CONTROL</b>	<b>Mol Mass:</b> 21.2kDa <b>AP Mol Mass:</b> 20kDa, reducing conditions. <b>Purity:</b> Greater than 95% as determined by reducing SDS-PAGE. <b>Endotoxin:</b> Less than 0.1ng/ $\mu\text{g}$ (1 EU/ $\mu\text{g}$ ) as determined by LAL test.																								
<b>BACKGROUND</b>	Ferritin heavy polypeptide 1(FTH1), is a ubiquitous intracellular protein which stores iron in a soluble, non-toxic, readily available form. FTH1 has ferroxidase activity and is important for iron homeostasis. Iron is taken up in the ferrous form and deposited as ferric hydroxides after oxidation. Ferritin is composed of 24 subunits of the light and heavy ferritin chains. It plays a role in delivery of iron to cells and mediates iron uptake in capsule cells of the developing kidney. Variation of ferritin subunit composition may affect iron absorption and release in different tissues. Deficiency of ferritin proteins may cause several neurodegenerative diseases. Almost all living organisms can produce this protein, including algae, bacteria, higher plants, and animals.																								
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