

## Product datasheet for **RC209845**

### Ferritin Heavy Chain (FTH1) (NM\_002032) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ferritin Heavy Chain (FTH1) (NM\_002032) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Ferritin Heavy Chain  
**Synonyms:** FHC; FTH; FTHL6; HFE5; PIG15; PLIF  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC209845 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGACGACCGGTCCACCTCGCAGGTGCGCCAGAACTACCACCAGGACTCAGAGGCCGCCATCAACCGCC  
 AGATCAACCTGGAGCTCTACGCCTCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCATGATGT  
 GGCTTTGAAGAACTTTGCCAAATACTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCTGAGAACTG  
 ATGAAGCTGCAGAACCAACGAGGTGGCCGAATCTTCTTCAGGATATCAAGAAACCAGACTGTGATGACT  
 GGGAGAGCGGGCTGAATGCAATGGAGTGTGCATTACATTTGGAAAAAATGTGAATCAGTCACTACTGGA  
 ACTGCACAAACTGGCCACTGACAAAAATGACCCCATTTGTGTGACTTCATTGAGACACATTACCTGAAT  
 GAGCAGGTGAAAGCCATCAAAGAATTGGGTGACCACGTGACCAACTTGGCGCAAGATGGGAGCGCCCGAAT  
 CTGGCTTGGCGGAATATCTCTTTGACAAGCACACCCTGGGAGACAGTGATAATGAAAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC209845 protein sequence  
 Red=Cloning site Green=Tags(s)

MTTASTSQVRQNYHQDSEAAINRQINLELYASYVYLSMSYYFDRDDVALKNFAKYFLHQSHREERHAEKL  
 MKLQNRGGRIFLQDIKPPDCDDWESGLNAMECALHLEKNVNQSLLELHKLATDKNDPHLCDFIETHYLN  
 EQVKAIKELGDHVTNLRKMGAPESGLAEYLFDKHTLGSDNES

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6087\\_c10.zip](https://cdn.origene.com/chromatograms/mk6087_c10.zip)



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002032

**ORF Size:** 549 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_002032.3](#)

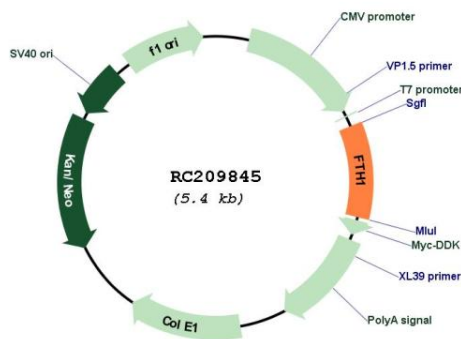
**RefSeq Size:** 1245 bp

**RefSeq ORF:** 552 bp

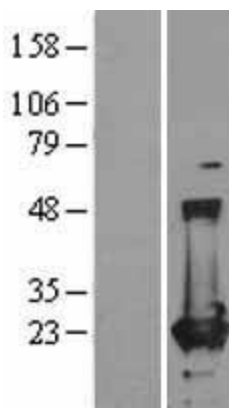
**Locus ID:** 2495  
**UniProt ID:** [P02794](#)  
**Cytogenetics:** 11q12.3  
**Domains:** ferritin  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Porphyrin and chlorophyll metabolism  
**MW:** 21.2 kDa

**Gene Summary:** This gene encodes the heavy subunit of ferritin, 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. This gene has multiple pseudogenes. Several alternatively spliced transcript variants have been observed, but their biological validity has not been determined. [provided by RefSeq, Jul 2008]

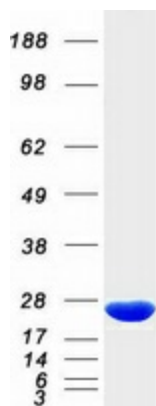
### Product images:



Circular map for RC209845



Western blot validation of overexpression lysate (Cat# [LY400741]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209845 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FTH1 protein (Cat# [TP309845]). The protein was produced from HEK293T cells transfected with FTH1 cDNA clone (Cat# RC209845) using MegaTran 2.0 (Cat# [TT210002]).