

Ferrochelatase (H-300): sc-99138

BACKGROUND

Ferrochelatase, also designated heme synthetase or protoheme ferrolyase, is the terminal enzyme of protoheme biosynthesis that catalyzes the ferrous form of iron insertion into protoporphyrin IX. Mature Ferrochelatase is a homodimeric, mitochondrial membrane-associated protein translated downstream of an N-terminal 54 amino acid transit peptide. Ferrochelatase contains two nitric oxide (NO)-sensitive clusters and coordinated 2FE-2S clusters which may potentially serve as a nitric oxide sensor. Defects in the gene encoding the Ferrochelatase enzyme, FECH, cause erythropoietic protoporphyria (EPP), which is a dominantly inherited disease of porphyrin metabolism characterized by photosensitivity and hepatobiliary disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FECH (human) mapping to 18q21.31; Fech (mouse) mapping to 18 E1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

Ferrochelatase (H-300) is a rabbit polyclonal antibody raised against amino acids 124-423 mapping at the C-terminus of Ferrochelatase of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Ferrochelatase (H-300) is recommended for detection of mitochondrial precursor and mature Ferrochelatase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ferrochelatase (H-300) is also recommended for detection of mitochondrial precursor and mature Ferrochelatase in additional species, including equine, canine, bovine, porcine and avian.

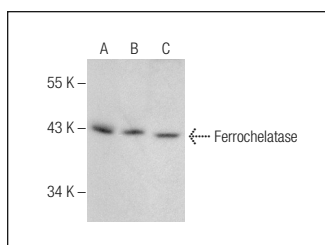
Suitable for use as control antibody for Ferrochelatase siRNA (h): sc-60631, Ferrochelatase siRNA (m): sc-60632, Ferrochelatase shRNA Plasmid (h): sc-60631-SH, Ferrochelatase shRNA Plasmid (m): sc-60632-SH, Ferrochelatase shRNA (h) Lentiviral Particles: sc-60631-V and Ferrochelatase shRNA (m) Lentiviral Particles: sc-60632-V.

Molecular Weight of Ferrochelatase homodimer: 86 kDa.

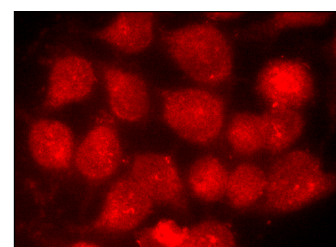
Molecular Weight of Ferrochelatase monomer: 40-43 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or HEL 92.1.7 cell lysate: sc-2270.

DATA



Ferrochelatase (H-300): sc-99138. Western blot analysis of Ferrochelatase expression in Jurkat (A), K-562 (B) and HEL 92.1.7 (C) whole cell lysates.



Ferrochelatase (H-300): sc-99138. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.