

# Ferroportin-1 (G-16): sc-49668

## BACKGROUND

Ferroportin-1, also designated solute carrier family 40 member 1 or iron-regulated transporter 1, is a multi-pass membrane protein that belongs to the SLC40A transporter protein family and localizes to the cell membrane on various cells, especially hepatocytes, endothelial cells and enterocytes. It plays a role in iron transfer between maternal and fetal circulation and acts as a mediator of iron efflux in the presence of ferroxidases, such as ceruloplasmin or hephaestin. The Ferroportin-1 protein may be involved in iron export from duodenal epithelial cells. Ferroportin-1 is expressed at highest levels in intestine, muscle, spleen and placenta. Mutations in the gene encoding for Ferroportin-1, SLC40A, cause hemochromatosis type 4 (HFE4), an autosomal dominant disorder characterized by excess storage of iron in reticuloendothelial cells and an increase in serum ferritin before elevation of the transferrin saturation.

## REFERENCES CHROMOSOMAL LOCATION

Genetic locus: SLC40A1 (human) mapping to 2q32.2; Slc40a1 (mouse) mapping to 1 B.

## SOURCE

Ferroportin-1 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ferroportin 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.

Blocking peptide available for competition studies, sc-49668 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Ferroportin-1 (G-16) is recommended for detection of Ferroportin 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).

Ferroportin-1 (G-16) is also recommended for detection of Ferroportin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Ferroportin-1 siRNA (h): sc-60633, Ferroportin-1 siRNA (m): sc-60634, Ferroportin-1 shRNA Plasmid (h): sc-60633-SH, Ferroportin-1 shRNA Plasmid (m): sc-60634-SH, Ferroportin-1 shRNA (h) Lentiviral Particles: sc-60633-V and Ferroportin-1 shRNA (m) Lentiviral Particles: sc-60634-V.

Molecular Weight (predicted) of Ferroportin-1: 63 kDa.

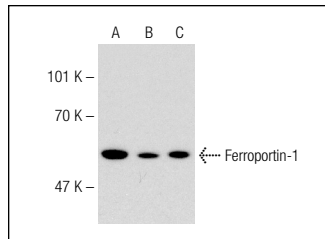
Molecular Weight (observed) of Ferroportin-1: 53 kDa.

Positive Controls: HISM cell lysate: sc-2229, KNRK whole cell lysate: sc-2214 and JAR cell lysate: sc-2276.

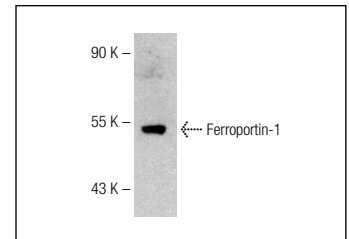
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Ferroportin-1 (G-16): sc-49668. Western blot analysis of Ferroportin-1 expression in HISM (A), HeLa (B) and JAR (C) whole cell lysates.



Ferroportin-1 (G-16): sc-49668. Western blot analysis of Ferroportin-1 expression in KNRK whole cell lysate.

## SELECT PRODUCT CITATIONS

- Ranganathan, P.N., et al. 2012. Immunoreactive hephaestin and ferroxidase activity are present in the cytosolic fraction of rat enterocytes. *Biomaterials* 25: 687-695.
- Swaminathan, S., et al. 2013. Gadolinium contrast agent-induced CD163<sup>+</sup> ferroportin<sup>+</sup> osteogenic cells in nephrogenic systemic fibrosis. *Am. J. Pathol.* 183: 796-807.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.