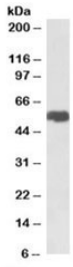
SLC40A1 Antibody / FPN Antibody (R33865)

Catalog No.	Formulation	Size
R33865-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Dog
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	30061
Applications	Western blot: 1-3ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This SLC40A1 Antibody / FPN Antibody is available for research use only.



SLC40A1 Antibody Human Breast Cancer WB. Western blot testing of human breast cancer lysate with SLC40A1 antibody at 1 ug/ml demonstrates a prominent immunoreactive band near 50 kDa. The predicted molecular weight of ferroportin is approximately 62 kDa. This SLC40A1 Antibody, also called FPN Antibody, supports studies of ferroportin expression, cellular iron export, and iron homeostasis in breast cancer.

Description

SLC40A1 Antibody / FPN Antibody recognizes ferroportin, the transmembrane iron-export protein encoded by the SLC40A1 gene. Ferroportin, also known as FPN, FPN1, IREG1, and MTP1, is a major regulator of cellular and systemic iron homeostasis. The protein transports iron from the cytoplasm across the plasma membrane and is particularly important in intestinal enterocytes, macrophages, hepatocytes, and placental cells. Through these cell populations, SLC40A1 helps control dietary iron absorption, recycling of iron from senescent erythrocytes, mobilization of stored iron,

and transfer of iron into the circulation.

Ferroportin function is closely regulated by hepcidin, a liver-derived peptide hormone that serves as a central regulator of systemic iron balance. Hepcidin binds to ferroportin and regulates its iron-export activity, thereby limiting iron release into plasma when circulating or stored iron is sufficient. Regulation of the hepcidin-FPN axis is influenced by iron status, erythropoietic activity, inflammation, and hypoxia. An SLC40A1 Antibody can therefore support research into mechanisms controlling cellular iron export, macrophage iron recycling, intestinal iron absorption, and systemic iron availability.

Altered SLC40A1 expression or activity is associated with several disorders of iron metabolism. Pathogenic variants in SLC40A1 can cause ferroportin disease, an inherited iron-overload disorder involving abnormal tissue iron accumulation and distribution. Changes in hepcidin-FPN signaling are also relevant to anemia of inflammation and other conditions characterized by disturbed iron availability. Beyond classical iron metabolism, ferroportin is studied in cancer biology, immune cell metabolism, oxidative stress, and ferroptosis because changes in cellular iron export can influence intracellular iron pools and iron-dependent processes. An FPN Antibody can help researchers examine ferroportin expression in these physiological and disease-related settings.

Ferroportin research intersects with pathways involving ferritin, transferrin, transferrin receptor, heme metabolism, macrophage function, and iron-dependent oxidative processes. As a major route of cellular iron efflux, SLC40A1 provides an important molecular link between intracellular iron handling and whole-body iron homeostasis. NSJ Bioreagents offers antibodies for research into metabolic regulation and related cellular pathways. An SLC40A1 Antibody is useful for studying FPN expression, ferroportin biology, hepcidin regulation, iron transport, systemic iron homeostasis, and disorders involving altered iron metabolism.

For additional information on SLC40A1 and its role in cellular iron export and systemic iron homeostasis, see our Ferroportin 1 Antibody / Ferroportin Antibody page.

Application Notes

Optimal dilution of the SLC40A1 Antibody / FPN Antibody should be determined by the researcher.

Immunogen

Amino acids ELKQLNLHKDTEPKP were used as the immunogen for this SLC40A1 antibody.

Storage

Aliquot and store the SLC40A1 antibody at -20oC.

Alternate Names

SLC40A1 antibody, FPN antibody, Ferroportin antibody, Ferroportin 1 antibody, FPN1 antibody, Solute Carrier Family 40 Member 1 antibody, Iron-Regulated Transporter 1 antibody

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