

SLC41A2 (J-20): sc-102116

BACKGROUND

SLC41A2 (solute carrier family 41, member 2), also known as SLC41A1-L, is a 573 amino acid multi-pass membrane protein that belongs to the SLC41A transporter family that includes SLC41A1 and SLC41A3. Expressed in lymphocytes and localizing to the cell membrane, SLC41A2 contains twelve transmembrane domains, three myristoylation sequences, numerous possible phosphorylation sites and a putative N-glycosylation site. SLC41A2 is believed to function as a plasma-membrane magnesium transporter. Magnesium, a cofactor for ATP, plays a vital role in metabolic and biochemical processes. The transport of magnesium across membranes is essential for maintaining magnesium homeostasis and is fundamental to vertebrate metabolism.

REFERENCES

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3. Goytain, A. and Quamme, G.A. 2005. Functional characterization of the mouse [corrected] solute carrier, SLC41A2. *Biochem. Biophys. Res. Commun.* 330: 701-705.
4. Sahni, J., Nelson, B. and Scharenberg, A.M. 2007. SLC41A2 encodes a plasma-membrane Mg²⁺ transporter. *Biochem. J.* 401: 505-513.
5. Kolisek, M., Launay, P., Beck, A., Sponder, G., Serafini, N., Brenkus, M., Froeschauer, E.M., Martens, H., Fleig, A. and Schweigel, M. 2008. SLC41A1 is a novel mammalian Mg²⁺ carrier. *J. Biol. Chem.* 283: 16235-16247.

CHROMOSOMAL LOCATION

Genetic locus: SLC41A2 (human) mapping to 12q23.3.

SOURCE

SLC41A2 (J-20) is a purified rabbit polyclonal antibody raised against SLC41A2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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.

APPLICATIONS

SLC41A2 (J-20) is recommended for detection of SLC41A2 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLC41A2 siRNA (h): sc-95853, SLC41A2 shRNA Plasmid (h): sc-95853-SH and SLC41A2 shRNA (h) Lentiviral Particles: sc-95853-V.

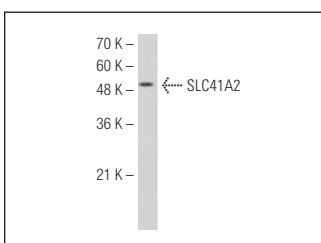
Molecular Weight of SLC41A2: 62 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



SLC41A2 (J-20): sc-102116. Western blot analysis of SLC41A2 expression in Hep G2 whole cell lysate.

RESEARCH USE

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