



SLC19A1 (m): 293T Lysate: sc-123083

BACKGROUND

SLC19A1 (solute carrier family 19 member 1), also designated reduced folate carrier protein (RFC-1), folate transporter 1, placental folate transporter (FOLT), or intestinal folate carrier (IFC-1), is a multi-pass membrane protein that acts as a transporter for folate intake. In human placental choriocarcinoma cells, folate intake occurs via potocytosis, a mechanism that couples three components: folate receptor, folate transporter and a H⁺-pump. SLC19A1 is a heavily glycosylated protein that is primarily detected in liver and placenta. SLC19A1 mediates the uptake of methotrexate (MTX), the antifolate drug widely used as both an anticancer chemotherapeutic drug and as an immunosuppressive agent. MTX mimics natural folates to inhibit critical cellular biosynthetic pathways.

REFERENCES

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2. Prasad, P.D., Ramamoorthy, S., Leibach, F.H. and Ganapathy, V. 1995. Molecular cloning of the human placental folate transporter. *Biochem. Biophys. Res. Commun.* 206: 681-687.
3. Wong, S.C., Proefke, S.A., Bhushan, A. and Matherly, L.H. 1995. Isolation of human cDNAs that restore methotrexate sensitivity and reduced folate carrier activity in methotrexate transport-defective Chinese hamster ovary cells. *J. Biol. Chem.* 270: 17468-17475.
4. Chiao, J.H., Roy, K., Tolner, B., Yang, C.H. and Sirotnak, F.M. 1997. RFC-1 gene expression regulates folate absorption in mouse small intestine. *J. Biol. Chem.* 272: 11165-11170.
5. Moscow, J.A. 1998. Methotrexate transport and resistance. *Leuk. Lymphoma* 30: 215-224.

CHROMOSOMAL LOCATION

Genetic locus: Slc19a1 (mouse) mapping to 10 C1.

PRODUCT

SLC19A1 (m): 293T Lysate represents a lysate of mouse SLC19A1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

SLC19A1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SLC19A1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.