

RFC-1 (H-185): sc-98971

BACKGROUND

Reduced folate carrier protein (RFC-1), also designated 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. RFC-1 is a heavily glycosylated protein that is primarily detected in liver and placenta. RFC-1 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

1. Moscow, J.A., et al. 1995. Isolation of a gene encoding a human reduced folate carrier (RFC-1) and analysis of its expression in transport-deficient, methotrexate-resistant human breast cancer cells. *Cancer Res.* 55: 3790-3794.
2. Prasad, P.D., et al. 1995. Molecular cloning of the human placental folate transporter. *Biochem. Biophys. Res. Commun.* 206: 681-687.

CHROMOSOMAL LOCATION

Genetic locus: SLC19A1 (human) mapping to 21q22.3; Slc19a1 (mouse) mapping to 10 C1.

SOURCE

RFC-1 (H-185) is a rabbit polyclonal antibody raised against amino acids 407-591 mapping at the C-terminus of RFC-1 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

RFC-1 (H-185) is recommended for detection of RFC-1 of human and, to a lesser extent, mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RFC-1 siRNA (h): sc-61462, RFC-1 siRNA (m): sc-37632, RFC-1 shRNA Plasmid (h): sc-61462-SH, RFC-1 shRNA Plasmid (m): sc-37632-SH, RFC-1 shRNA (h) Lentiviral Particles: sc-61462-V and RFC-1 shRNA (m) Lentiviral Particles: sc-37632-V.

Molecular Weight of human RFC-1: 58 kDa.

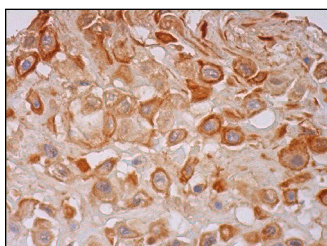
Molecular Weight of glycosylated RFC-1: 92 kDa.

Molecular Weight of mouse RFC-1 isoforms: 58/54/43 kDa.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



RFC-1 (H-185): sc-98971. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of decidual cells.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **RFC-1 (D-4): sc-390948** or **RFC-1 (D-6): sc-271276**, our highly recommended monoclonal alternatives to RFC-1 (H-185).