

SAT-1 (G-17): sc-102104

BACKGROUND

SAT-1 (sulfate anion transporter 1), also known as SLC26A1 (solute carrier family 26 (sulfate transporter), member 1) or EDM4, is a 701 amino acid multi-pass membrane protein that belongs to the SLC26A/SulP transporter family of proteins. Members of this family are sulfate/anion transporter proteins that are well conserved in their genomic (number and size of exons) and protein (amino acid length among species) structures, yet they exhibit very restricted and distinct tissue expression patterns. SAT-1 is predominantly expressed in kidney and liver but can also be found at lower levels in spleen, small intestine, brain, pancreas, leukocytes, prostate, thymus, testis and colon. Localized to the plasma membrane, SAT-1 contains one STAS domain, twelve trans-membrane domains, two N-glycosylation sites and multiple phosphorylation sites. Accepting oxalate as a cosubstrate, SAT-1 participates in transtubular sulfate reabsorption by mediating the exit of sulfate across the basolateral membrane.

REFERENCES

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- Vincourt, J.B., et al. 2002. Molecular cloning of SLC26A7, a novel member of the SLC26 sulfate/anion transporter family, from high endothelial venules and kidney. *Genomics* 79: 249-256.
- Lee, A., et al. 2003. The mouse sulfate anion transporter gene *Sat1* (Slc26a1): cloning, tissue distribution, gene structure, functional characterization, and transcriptional regulation thyroid hormone. *DNA Cell Biol.* 22: 19-31.
- Regeer, R.R., et al. 2003. Characterization of the human sulfate anion transporter (hSAT-1) protein and gene (SAT1; SLC26A1). *DNA Cell Biol.* 22: 107-117.
- Vincourt, J.B., et al. 2003. Molecular and functional characterization of SLC26A11, a sodium-independent sulfate transporter from high endothelial venules. *FASEB J.* 17: 890-892.
- Kere, J. 2006. Overview of the SLC26 family and associated diseases. *Novartis Found. Symp.* 273: 2-11.

CHROMOSOMAL LOCATION

Genetic locus: SLC26A1 (human) mapping to 4p16.3.

SOURCE

SAT-1 (G-17) is a purified rabbit polyclonal antibody raised against SAT-1 of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

RESEARCH USE

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

APPLICATIONS

SAT-1 (G-17) is recommended for detection of SAT-1 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)], 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 SAT-1 siRNA (h): sc-89262, SAT-1 shRNA Plasmid (h): sc-89262-SH and SAT-1 shRNA (h) Lentiviral Particles: sc-89262-V.

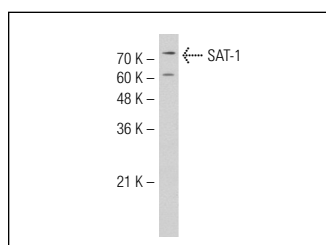
Molecular Weight of SAT-1: 75 kDa.

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). 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



SAT-1 (G-17): sc-102104. Western blot analysis of SAT-1 expression in Hep G2 whole cell lysate.

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.