SANTA CRUZ BIOTECHNOLOGY, INC.

CNT1 (H-70): sc-134563

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Nucleosides play a role in signaling in several physiologic systems, and synthetic analogs of natural nucleosides are often used to treat neoplastic and viral diseases. Plasma membrane transport of nucleosides is mediated by equilibrative and concentrative nucleoside transporters, which may have specificity for purines or pyrimidines. The deduced human 650 amino acid concentrative nucleoside transporter 1 (CNT1) protein is 83% identical to the rat protein and is expressed in the intestine, kidney and liver. CNT1, also designated solute carrier family 28 (sodium-coupled nucleoside transporter), member 1 (SLC28A1), expedites sodium-dependent fluxes of uridine, azidodeoxythymidine (AZT) and adenosine, but not of guanosine or deoxyadenosine, which undergo net renal secretion. CNT1 activity may serve as a putative mechanism for renal reabsorption of physiologic nucleosides and synthetic nucleoside drugs.

REFERENCES

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5. Rodriguez-Mulero, S., Errasti-Murugarren, E., Ballarín, J., Felipe, A., Douce, A., Casado, F.J. and Pastor-Anglada, M. 2005. Expression of concentrative nucleoside transporters SLC28 (CNT1, CNT2 and CNT3) along the rat nephron: effect of diabetes. Kidney Int. 68: 665-672.

CHROMOSOMAL LOCATION

Genetic locus: SLC28A1 (human) mapping to 15q25.3.

SOURCE

CNT1 (H-70) is a rabbit polyclonal antibody raised against amino acids 1-70 mapping at the N-terminus of CNT1 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

CNT1 (H-70) is recommended for detection of CNT1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CNT1 siRNA (h): sc-60421, CNT1 shRNA Plasmid (h): sc-60421-SH and CNT1 shRNA (h) Lentiviral Particles: sc-60421-V.

Molecular Weight of CNT1: 72 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.

SELECT PRODUCT CITATIONS

1. Skrypek, N., Duchêne, B., Hebbar, M., Leteurtre, E., van Seuningen, I. and Jonckheere, N. 2013. The MUC4 mucin mediates gemcitabine resistance of human pancreatic cancer cells via the concentrative nucleoside transporter family. Oncogene 32: 1714-1723.
2. Sánchez-Tilló, E., Fanlo, L., Siles, L., Montes-Moreno, S., Moros, A., Chiva-Blanch, G., Estruch, R., Martinez, A., Colomer, D., Gyorffy, B., Roué, G. and Postigo, A. 2013. The EMT activator ZEB1 promotes tumor growth and determines differential response to chemotherapy in mantle cell lymphoma. Cell Death Differ. E-published.

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.