

# CNT2 (M-50): sc-134528

## BACKGROUND

The concentrative nucleoside transporter (CNT) family comprises three members: CNT1, CNT2 and CNT3. CNT2 participates in the absorption and disposition of endogenous nucleosides and mediates the first step of nucleotide biosynthesis. CNT2 levels are highly dependent on insulin (but not glucose) concentration, and the protein is under the control of the Adenosine 1 receptor. CNT family members are imperative in the response of cells to a variety of anticancer and antiviral nucleoside analogs, as the CNT proteins modulate their entry into target tissues. Increasing evidence also suggests that CNT2 may have a role in energy metabolism because activation of CNT2 relies on the opening of ATP-sensitive K<sup>+</sup> channels.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606208. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Gray, J.H., et al. 2004. The concentrative nucleoside transporter family, SLC28. *Pflugers Arch.* 447: 728-734.
3. Sakowicz, M., et al. 2005. Differential effect of insulin and elevated glucose level on adenosine transport in rat B lymphocytes. *Int. Immunol.* 17: 145-154.
4. Kato, R., et al. 2005. Nucleoside transport at the blood-testis barrier studied with primary-cultured sertoli cells. *J. Pharmacol. Exp. Ther.* 312: 601-608.
5. Rodriguez-Mulero, S., et al. 2005. Expression of concentrative nucleoside transporters SLC28 (CNT1, CNT2 and CNT3) along the rat nephron: effect of diabetes. *Kidney Int.* 68: 665-672.
6. Owen, R.P., et al. 2005. Genetic analysis and functional characterization of polymorphisms in the human concentrative nucleoside transporter, CNT2. *Pharmacogenet. Genomics* 15: 83-90.
7. Aymerich, I., et al. 2005. The concentrative nucleoside transporter family (SLC28): new roles beyond salvage? *Biochem. Soc. Trans.* 33: 216-219.

## CHROMOSOMAL LOCATION

Genetic locus: SLC28A2 (human) mapping to 15q21.1; Slc28a2 (mouse) mapping to 2 E5.

## SOURCE

CNT2 (M-50) is a rabbit polyclonal antibody raised against amino acids 590-639 mapping near the C-terminus of CNT2 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CNT2 (M-50) is recommended for detection of CNT2 of mouse, rat and, to a lesser extent, 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).

CNT2 (M-50) is also recommended for detection of CNT2 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for CNT2 siRNA (h): sc-60423, CNT2 siRNA (m): sc-60424, CNT2 shRNA Plasmid (h): sc-60423-SH, CNT2 shRNA Plasmid (m): sc-60424-SH, CNT2 shRNA (h) Lentiviral Particles: sc-60423-V and CNT2 shRNA (m) Lentiviral Particles: sc-60424-V.

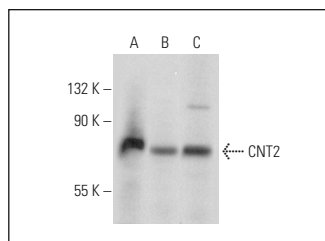
Molecular Weight of CNT2: 72 kDa.

Positive Controls: c4 whole cell lysate: sc-364186.

## 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.

## DATA



CNT2 (M-50): sc-134528. Western blot analysis of CNT2 expression in Hep G2 (A), Jurkat (B) and c4 (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.