

# CNT2 (N-17): sc-48134

## 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<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606208. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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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.
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## CHROMOSOMAL LOCATION

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

## SOURCE

CNT2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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.

Blocking peptide available for competition studies, sc-48134 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

CNT2 (N-17) is recommended for detection of CNT2 of human, mouse and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

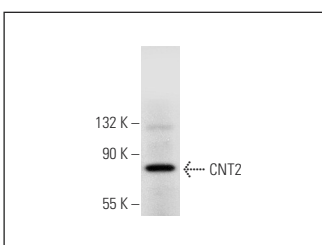
Molecular Weight of CNT2: 72 kDa.

Positive Controls: human skeletal muscle extract: sc-363776.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



CNT2 (N-17): sc-48134. Western blot analysis of CNT2 expression in human skeletal muscle tissue extract.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.