

SNAT2 (H-60): sc-67081

BACKGROUND

The sodium-coupled neutral amino acid transporters (SNAT) of the SLC38 gene family include System A subtypes SNAT1, SNAT2 and SNAT4 and System N subtypes SNAT3 and SNAT5. The SLC38 transporters are essential for the uptake of nutrients, energy production, metabolism, detoxification and the cycling of neurotransmitters. SNAT2, also designated ATA2, PRO1068 and SAT2, is encoded by the human gene SLC38A2. The functional role of SNAT2 in the nervous system is unclear. Protein expression is notably enriched in the spinal cord and brain stem nuclei of the auditory system. System A transport proteins are also present in placental tissue. These SNAT proteins may play a significant role in fetal development and inhibition of the transport system has been associated with fetal growth retardation.

REFERENCES

1. Wang, H., et al. 2000. Cloning and functional expression of ATA1, a subtype of amino acid transporter A, from human placenta. *Biochem. Biophys. Res. Commun.* 273: 1175-1179.
2. Hatanaka, T., et al. 2000. Primary structure, functional characteristics and tissue expression pattern of human ATA2, a subtype of amino acid transport system A. *Biochim. Biophys. Acta* 1467: 1-6.

CHROMOSOMAL LOCATION

Genetic locus: SLC38A2 (human) mapping to 12q13.11; Slc38a2 (mouse) mapping to 15 F1.

SOURCE

SNAT2 (H-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping at the N-terminus of SNAT2 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

SNAT2 (H-60) is recommended for detection of SNAT2 of mouse, rat and 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).

SNAT2 (H-60) is also recommended for detection of SNAT2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SNAT2 siRNA (h): sc-44974, SNAT2 siRNA (m): sc-44975, SNAT2 shRNA Plasmid (h): sc-44974-SH, SNAT2 shRNA Plasmid (m): sc-44975-SH, SNAT2 shRNA (h) Lentiviral Particles: sc-44974-V and SNAT2 shRNA (m) Lentiviral Particles: sc-44975-V.

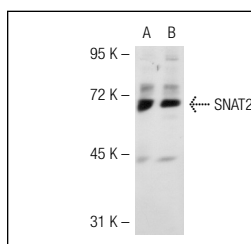
Molecular Weight of SNAT2: 60 kDa.

Positive Controls: SNAT2 (m): 293T Lysate: sc-123678.

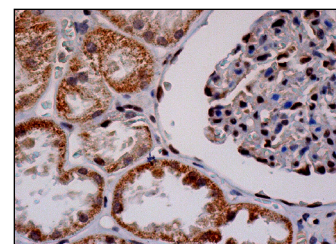
RECOMMENDED SECONDARY REAGENTS

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



SNAT2 (H-60): sc-67081. Western blot analysis of SNAT2 expression in non-transfected: sc-117752 (A) and mouse SNAT2 transfected: sc-123678 (B) 293T whole cell lysates.



SNAT2 (H-60): sc-67081. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and nuclear staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Drummond, M.J., et al. 2011. Skeletal muscle amino acid transporter expression is increased in young and older adults following resistance exercise. *J. Appl. Physiol.* 111: 135-142.
2. Tan, B.S., et al. 2011. The amino acid transporter SNAT2 mediates L-proline-induced differentiation of ES cells. *Am. J. Physiol., Cell Physiol.* 300: C1270-C1279.

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.



Try **SNAT2 (C-6): sc-514037** or **SNAT2 (G-8): sc-166366**, our highly recommended monoclonal alternatives to SNAT2 (H-60).