SANTA CRUZ BIOTECHNOLOGY, INC.

NaDC-3 (3A6): sc-293347

BACKGROUND

NaDC-3 (Na^+/dicarboxylate cotransporter 3), also known as SLC13A3 (solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 3) or SDCT2 (sodium-dependent high-affinity dicarboxylate transporter 2), is a 602 amino acid multi-pass membrane protein and high-affinity sodium-dicarboxylate cotransporter that exists as four alternatively spliced isoforms. As a member of the solute carrier family 13 (SLC13) gene family, NaDC-3 couples the transport of sodium and Krebs cycle intermediates, including succinate and citrate, across the plasma membrane. NaDC-3 binds three sodium ions followed by a divalent anion substrate, which results in one positive charge across the membrane. The gene encoding human NaDC-3 is localized to chromosome 20 and is expressed in kidney, liver, placenta, brain and pancreas.

REFERENCES

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3. Huang, W., Wang, H., Kekuda, R., Fei, Y.J., Friedrich, A., Wang, J., Conway, S.J., Cameron, R.S., Leibach, F.H. and Ganapathy, V. 2000. Transport of N-acetylaspartate by the Na^+-dependent high-affinity dicarboxylate transporter NaDC3 and its relevance to the expression of the transporter in the brain. J. Pharmacol. Exp. Ther. 295: 392-403.
4. Markovich, D. and Murer, H. 2004. The SLC13 gene family of sodium sulphate/carboxylate cotransporters. Pflugers Arch. 447: 594-602.
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6. Bai, X., Chen, X., Feng, Z., Hou, K., Zhang, P., Fu, B. and Shi, S. 2006. Identification of basolateral membrane targeting signal of human sodium-dependent dicarboxylate transporter 3. J. Cell. Physiol. 206: 821-830.
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CHROMOSOMAL LOCATION

Genetic locus: SLC13A3 (human) mapping to 20q13.12.

SOURCE

NaDC-3 (3A6) is a mouse monoclonal antibody raised against amino acids 152-232 of NaDC-3 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

NaDC-3 (3A6) is recommended for detection of NaDC-3 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

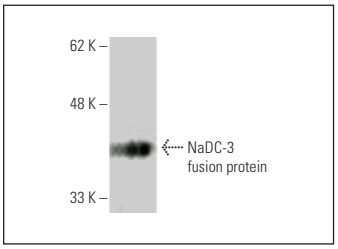
Suitable for use as control antibody for NaDC-3 siRNA (h): sc-75859, NaDC-3 shRNA Plasmid (h): sc-75859-SH and NaDC-3 shRNA (h) Lentiviral Particles: sc-75859-V.

Molecular Weight of NaDC-3 isoform 1/2/3/4: 67/26/58/38 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



NaDC-3 (3A6): sc-293347. Western blot analysis of human recombinant NaDC-3 fusion protein.

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 for detailed protocols and support products.