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- Diagnostik & molekulare Diagnostik
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SANTA CRUZ BIOTECHNOLOGY, INC.

ALDH4A1 (h2): 293T Lysate: sc-174976

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Aldehyde dehydrogenases (ALDHs) mediate $NADP^+$-dependent oxidation of aldehydes into acids during detoxification of alcohol-derived acetaldehyde, lipid peroxidation and metabolism of corticosteroids, biogenic amines and neurotransmitters. ALDH4A1 (aldehyde dehydrogenase 4 family member A1), also known as P5CD (Δ^1-pyrroline-5-carboxylate dehydrogenase), P5CDh, P5CDhL, P5CDhS or ALDH4, is a major enzyme involved in the proline degradation pathway. Localizing to the mitochondrial matrix, ALDH4A1 catalyzes the conversion of Δ^1-pyrroline-5-carboxylate (P5C) to glutamate. A mutation in the gene encoding ALDH4A1 results in HPII (hyperprolinemia type II), a disease characterized by an excess of P5C and proline that is associated with mental retardation and seizures.

REFERENCES

1. Goodman, S.I., Mace, J.W., Miles, B.S., Teng, C.C. and Brown, S.B. 1974. Defective hydroxyproline metabolism in type II hyperprolinemia. Biochem. Med. 10: 329-336.
2. Flynn, M.P., Martin, M.C., Moore, P.T., Stafford, J.A., Fleming, G.A. and Phang, J.M. 1989. Type II hyperprolinaemia in a pedigree of Irish travellers (nomads). Arch. Dis. Child. 64: 1699-1707.
3. Yoshiba, Y., Kiyosue, T., Nakashima, K., Yamaguchi-Shinozaki, K. and Shinozaki, K. 1997. Regulation of levels of proline as an osmolyte in plants under water stress. Plant Cell Physiol. 38: 1095-1102.
4. Geraghty, M.T., Vaughn, D., Nicholson, A.J., Lin, W.W., Jimenez-Sanchez, G., Obie, C., Flynn, M.P., Valle, D. and Hu, C.A. 1998. Mutations in the Δ^1-pyrroline 5-carboxylate dehydrogenase gene cause type II hyperprolinemia. Hum. Mol. Genet. 7: 1411-1415.
5. Vasiliou, V., Bairoch, A., Tipton, K.F. and Nebert, D.W. 1999. Eukaryotic aldehyde dehydrogenase (ALDH) genes: human polymorphisms, and recommended nomenclature based on divergent evolution and chromosomal mapping. Pharmacogenetics 9: 421-434.
6. Vasiliou, V. and Pappa, A. 2000. Polymorphisms of human aldehyde dehydrogenases. Consequences for drug metabolism and disease. Pharmacology 61: 192-198.
7. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606811. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
8. Onenli-Mungan, N., Yuksel, B., Elkay, M., Topaloglu, A.K., Baykal, T. and Ozer, G. 2004. Type II hyperprolinemia: a case report. Turk. J. Pediatr. 46: 167-169.
9. Yoon, K.A., Nakamura, Y. and Arakawa, H. 2004. Identification of ALDH4 as a p53-inducible gene and its protective role in cellular stresses. J. Hum. Genet. 49: 134-140.

CHROMOSOMAL LOCATION

Genetic locus: ALDH4A1 (human) mapping to 1p36.13.

RESEARCH USE

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

PRODUCT

ALDH4A1 (h2): 293T Lysate represents a lysate of human ALDH4A1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ALDH4A1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive ALDH4A1 antibodies. Recommended use: 10-20 µl per lane.

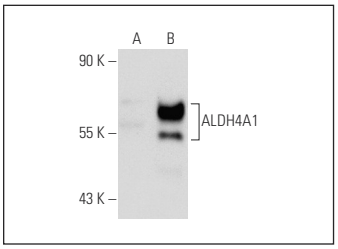
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ALDH4A1 (672): sc-100499 is recommended as a positive control antibody for Western Blot analysis of enhanced human ALDH4A1 expression in ALDH4A1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



ALDH4A1 (672): sc-100499. Western blot analysis of ALDH4A1 expression in non-transfected: sc-117752 (**A**) and human ALDH4A1 transfected: sc-174976 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.