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- Expressversand

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# ALDH8A1 (m): 293T Lysate: sc-118346

## BACKGROUND

Aldehyde dehydrogenases (ALDHs) mediate the NADP<sup>+</sup>-dependent oxidation of aldehydes into acids and play an important role in the detoxification of alcohol-derived acetaldehyde, as well as in lipid peroxidation and in the metabolism of corticosteroids, biogenic amines and neurotransmitters. ALDH8A1 (aldehyde dehydrogenase 8 family, member A1), also known as ALDH12, is a 487 amino acid protein that localizes to the cytoplasm and belongs to the aldehyde dehydrogenase family. Expressed in kidney and liver, ALDH8A1 converts 9-*cis*-retinal to 9-*cis*-retinoic acid. 9-*cis*-retinoic acid activates retinoid X receptors, a family of nuclear receptors which are involved in regulating multiple signaling pathways. Three isoforms exist due to alternative splicing events.

## REFERENCES

- Heyman, R.A., Mangelsdorf, D.J., Dyck, J.A., Stein, R.B., Eichele, G., Evans, R.M. and Thaller, C. 1992. 9-*cis*-retinoic acid is a high affinity ligand for the retinoid X receptor. *Cell* 68: 397-406.
- Lin, M. and Napoli, J.L. 2000. cDNA cloning and expression of a human aldehyde dehydrogenase (ALDH) active with 9-*cis*-retinal and identification of a rat ortholog, ALDH12. *J. Biol. Chem.* 275: 40106-40112.
- Vasilioiu, V. and Pappa, A. 2000. Polymorphisms of human aldehyde dehydrogenases. Consequences for drug metabolism and disease. *Pharmacology* 61: 192-198.
- Zhuang, R., Lin, M. and Napoli, J.L. 2002. *cis*-Retinol/androgen dehydrogenase, isozyme 3 (CRAD3): a short-chain dehydrogenase active in a reconstituted path of 9-*cis*-retinoic acid biosynthesis in intact cells. *Biochemistry* 41: 3477-3483.
- Ahuja, H.S., Szanto, A., Nagy, L. and Davies, P.J. 2003. The retinoid X receptor and its ligands: versatile regulators of metabolic function, cell differentiation and cell death. *J. Biol. Regul. Homeost. Agents* 17: 29-45.
- Close, J., Game, L., Clark, B., Bergounioux, J., Gerovassili, A. and Thein, S.L. 2004. Genome annotation of a 1.5 Mb region of human chromosome 6q23 encompassing a quantitative trait locus for fetal hemoglobin expression in adults. *BMC Genomics* 5: 33.
- Marlier, A. and Gilbert, T. 2004. Expression of retinoic acid-synthesizing and -metabolizing enzymes during nephrogenesis in the rat. *Gene Expr. Patterns* 5: 179-185.
- Jiang, J., Best, S., Menzel, S., Silver, N., Lai, M.I., Surdulescu, G.L., Spector, T.D. and Thein, S.L. 2006. cMYB is involved in the regulation of fetal hemoglobin production in adults. *Blood* 108: 1077-1083.
- Wolf, G. 2006. Is 9-*cis*-retinoic acid the endogenous ligand for the retinoic acid-X receptor? *Nutr. Rev.* 64: 532-538.

## CHROMOSOMAL LOCATION

Genetic locus: *Aldh8a1* (mouse) mapping to 10 A3.

## PRODUCT

ALDH8A1 (m): 293T Lysate represents a lysate of mouse ALDH8A1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

ALDH8A1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ALDH8A1 antibodies. Recommended use: 10-20 µl per lane.

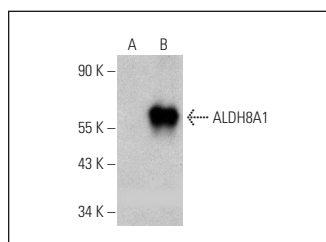
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ALDH8A1 (E-2): sc-515006 is recommended as a positive control antibody for Western Blot analysis of enhanced human ALDH8A1 expression in ALDH8A1 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



ALDH8A1 (E-2): sc-515006. Western blot analysis of ALDH8A1 expression in non-transfected: sc-117752 (A) and mouse ALDH8A1 transfected: sc-118346 (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.

## 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) for detailed protocols and support products.