

AKR1B10 (h2): 293T Lysate: sc-175413

BACKGROUND

AKR1B10 (aldo-keto reductase family 1 member B10) is also known as aldose reductase-like-1 (ARL-1), small intestine reductase (SI reductase) or aldose reductase-related protein (ARP or hARP). AKR1B10 is found in many tissues but is predominantly expressed in small intestine, colon and adrenal gland. AKR1B10 is an efficient reductase for aliphatic and aromatic aldehydes. It plays a role in steroid metabolism as well as detoxification of aldehydes in digested food, and may be involved in the retinal-retinoic acid signaling pathway. AKR1B10 is prominently overexpressed in non-small cell lung carcinoma and adenocarcinoma. Cigarette smoking is an independent variable responsible for this overexpression. AKR1B10 may play a role regulating cell proliferation and cellular response to carbonyl stress.

REFERENCES

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4. Gallego, O., et al. 2006. Comparative functional analysis of human medium-chain dehydrogenases, short-chain dehydrogenases/reductases and aldo-keto reductases with retinoids. *Biochem. J.* 399: 101-109.
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6. Mashkova, T.D., et al. 2006. Transcription TIMP3, DAPK1 and AKR1B10 genes in squamous cell lung cancer. *Mol. Biol.* 40: 1047-1054.
7. Yan, R., et al. 2007. Aldo-keto reductase family 1 B10 gene silencing results in growth inhibition of colorectal cancer cells: implication for cancer intervention. *Int. J. Cancer* 121: 2301-2306.
8. Zu, X., et al. 2007. Reduced 293T cell susceptibility to acrolein due to aldose reductase-like-1 protein expression. *Toxicol. Sci.* 97: 562-568.
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CHROMOSOMAL LOCATION

Genetic locus: AKR1B10 (human) mapping to 7q33.

PRODUCT

AKR1B10 (h2): 293T Lysate represents a lysate of human AKR1B10 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

AKR1B10 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive AKR1B10 antibodies. Recommended use: 10-20 µl per lane.

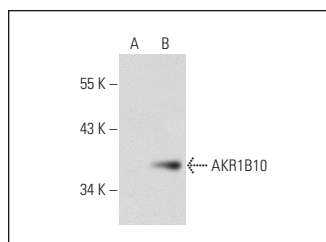
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

AKR1B10 (AA-1): sc-100501 is recommended as a positive control antibody for Western Blot analysis of enhanced human AKR1B10 expression in AKR1B10 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



AKR1B10 (AA-1): sc-100501. Western blot analysis of AKR1B10 expression in non-transfected: sc-117752 (A) and human AKR1B10 transfected: sc-175413 (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.