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

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

SOURCE
AKR1B10 (D-8) is a mouse monoclonal antibody raised against amino acids 79-147 mapping within an internal region of AKR1B10 of human origin.

PRODUCT
Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
AKR1B10 (D-8) is recommended for detection of AKR1B10 of human origin by Western Blotting (starting dilution 1:100, 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). Suitable for use as control antibody for AKR1B10 siRNA (h): sc-72341, AKR1B10 shRNA Plasmid (h): sc-72341-SH and AKR1B10 shRNA (h) Lentiviral Particles: sc-72341-V. Molecular Weight of AKR1B10: 35 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, human stomach extract: sc-363780 or AS49 cell lysate: sc-2413.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG® BP-HRP: sc-516102 or m-IgG® 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). 3) Immunofluorescence: use m-IgG® BP-FITC: sc-516140 or m-IgG® BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG® BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistochemistry: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA
AKR1B10 (D-8): sc-365688. Western blot analysis of AKR1B10 expression in human stomach tissue extract.

SELECT PRODUCT CITATIONS

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.

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