**BACKGROUND**

Aldehyde dehydrogenases (ALDHs) mediate the NADP+-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. ALDH6A1 (aldehyde dehydrogenase family 6 member A1), also known as MMSDH or MMSADHA, is a 535 amino acid mitochondrial protein that belongs to the aldehyde dehydrogenase family. Considered a mitochondrial methylmalonate semi-aldehyde dehydrogenase, ALDH6A1 catalyzes the irreversible oxidative decarboxylation of malonate and methylmalonate semi-aldehydes to acetyl- and propionyl-CoA. It is suggested that ALDH6A1 plays a role in the valine and pyrimidine catabolic pathways.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ALDH6A1 (human) mapping to 14q24.3; Aldh6a1 (mouse) mapping to 12 D1.

**SOURCE**

ALDH6A1 (F-10) is a mouse monoclonal antibody raised against a peptide mapping near the N-terminus of ALDH6A1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**RESEARCH USE**

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

**APPLICATIONS**

ALDH6A1 (F-10) is recommended for detection of ALDH6A1 of mouse, rat and 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)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ALDH6A1 (F-10) is also recommended for detection of ALDH6A1 in additional species, including canine, bovine and porcine.


Molecular Weight of ALDH6A1: 58 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, human liver extract: sc-363766 or c4 whole cell lysate: sc-364186.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**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.