SANTA CRUZ BIOTECHNOLOGY, INC.

Myo-inositol oxygenase (h2): 293T Lysate: sc-117367

BACKGROUND

Myo-inositol oxygenase (MIOX), also known as ALDRL6, is a renal-specific member of the aldo-keto reductase family. It catalyzes the first committed step in the Myo-inositol metabolism pathway and is widely distributed in mammalian tissues. Human Myo-inositol oxygenase shares 91% and 96% sequence homology with mouse and pig Myo-inositol oxygenase homologs, respectively. Myo-inositol oxygenase is responsible for the oxidative cleavage of Myo-inositol (MI) and its epimer D-chiro inositol (DCI) to D-glucuronate. The dioxygen-dependent cleavage of the C1-C6 bond in Myo-inositol is accomplished through the utilization of the Fe^{II}/Fe^{III} binuclear iron center of MIOX. Myo-inositol oxygenase has also been implicated in complications of diabetes, including diabetic nephropathy.

REFERENCES

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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.

CHROMOSOMAL LOCATION

Genetic locus: MIOX (human) mapping to 22q13.33.

PRODUCT

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

APPLICATIONS

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

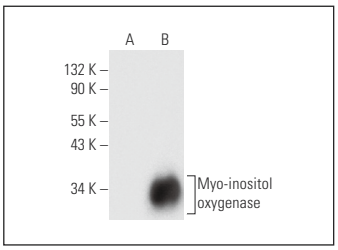
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Myo-inositol oxygenase (D-11): sc-271512 is recommended as a positive control antibody for Western Blot analysis of enhanced human Myo-inositol oxygenase expression in Myo-inositol oxygenase transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

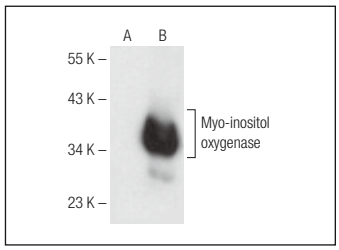
RECOMMENDED SUPPORT REAGENTS

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



Myo-inositol oxygenase (D-11): sc-271512. Western blot analysis of Myo-inositol oxygenase expression in non-transfected: sc-117752 (**A**) and human Myo-inositol oxygenase transfected: sc-117367 (**B**) 293T whole cell lysates.



Myo-inositol oxygenase (E-11): sc-376080. Western blot analysis of Myo-inositol oxygenase expression in non-transfected: sc-117752 (**A**) and human Myo-inositol oxygenase transfected: sc-117367 (**B**) 293T whole cell lysates.

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.