SANTA CRUZ BIOTECHNOLOGY, INC.

ADX Reductase (P-15): sc-30594



BACKGROUND

Adrenodoxin Reductase (ADX Reductase) is a mitochondrial flavoprotein that receives electrons from NADPH and thereby initiates the electron-transport chain serving mitochondrial cytochromes P450. ADX Reductase participates in cholesterol side chain cleavage in all steroidogenic tissues, steroid 11- β hydroxylation in the adrenal cortex, 25-OH-Vitamin D₃-24 hydroxylation in the kidney and sterol C-27 hydroxylation in the liver. Alternate splicing of ADX Reductase produces two isoforms. Human ADX Reductase maps to human chromosome 17q25.1.

REFERENCES

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- Sparkes, R., et al. 1991. Regional mapping of genes encoding human steroidogenic enzymes: P450scc to 15q23-q24; Adrenodoxin to 11q22; Adrenodoxin Reductase to 17q24-q25; and P450c17 to 10q24-q25. DNA Cell Biol. 10: 359-365.
- Ziegler, G.A., et al. 1999. The structure of Adrenodoxin Reductase of mitochondrial P450 systems: electron transfer for steroid biosynthesis. J. Mol. Biol. 289: 981-990.
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- Muller, J.J., et al. 2001. Adrenodoxin Reductase-Adrenodoxin complex structure suggests electron transfer path in steroid biosynthesis. J. Biol. Chem. 276: 2786-2789.
- SWISS-PROT/TrEMBL (P22570). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: FDXR (human) mapping to 17q25.1; Fdxr (mouse) mapping to 11 E2.

SOURCE

ADX Reductase (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Adrenodoxin Reductase of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30594 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADX Reductase (P-15) is recommended for detection of Adrenodoxin Reductase, isoforms 1 and 2 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).

ADX Reductase (P-15) is also recommended for detection of Adrenodoxin Reductase, isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ADX Reductase siRNA (h): sc-61906, ADX Reductase siRNA (m): sc-61907, ADX Reductase shRNA Plasmid (h): sc-61906-SH, ADX Reductase shRNA Plasmid (m): sc-61907-SH, ADX Reductase shRNA (h) Lentiviral Particles: sc-61906-V and ADX Reductase shRNA (m) Lentiviral Particles: sc-61907-V.

Molecular Weight of ADX Reductase: 51 kDa.

Positive Controls: rat adrenal gland extract sc-364802, mouse adrenal gland extract sc-364237 or SW-13 cell lysate: sc-24778.

DATA





ADX Reductase (P-15): sc-30594. Western blot analysis of ADX Reductase expression in mouse adrenal gland (A) and rat adrenal gland (B) tissue extracts.

ADX Reductase (P-15): sc-30594. Immunofluorescence staining of methanol-fixed Hep G2 cells showing cytoplasmic localization.

STORAGE

Store at 4° C, **D0 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 or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try **ADX Reductase (E-2): sc-374436**, our highly recommended monoclonal alternative to ADX Reductase (P-15).