

ADX Reductase (E-2): sc-374436

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

1. Solish, S., et al. 1988. Human adrenodoxin reductase: two mRNAs encoded by a single gene on chromosome 17q24-q25 are expressed in steroidogenic tissues. *Proc. Nat. Acad. Sci. USA* 85: 7104-7108.
2. Sparkes, R., et al. 1991. Regional mapping of genes encoding human steroidogenic enzymes: P450_{scc} to 15q23-q24; adrenodoxin to 11q22; adrenodoxin reductase to 17q24-q25; and P450_{c17} to 10q24-q25. *DNA Cell Biol.* 10: 359-365.

CHROMOSOMAL LOCATION

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

SOURCE

ADX Reductase (E-2) is a mouse monoclonal antibody raised against amino acids 192-491 mapping at the C-terminus of Adrenodoxin Reductase of human origin.

PRODUCT

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

APPLICATIONS

ADX Reductase (E-2) is recommended for detection of ADX Reductase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

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.

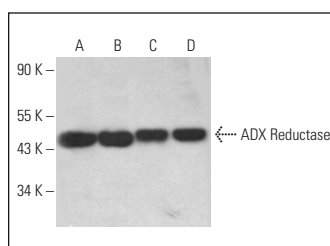
Molecular Weight of ADX Reductase: 51 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, 3T3-L1 cell lysate: sc-2243 or PC-12 cell lysate: sc-2250.

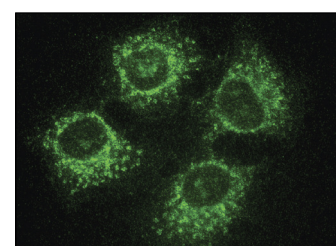
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ADX Reductase (E-2): sc-374436. Western blot analysis of ADX Reductase expression in K-562 (A), 3T3-L1 (B), PC-12 (C) and C6 (D) whole cell lysates.



ADX Reductase (E-2): sc-374436. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Linares, C.I., et al. 2015. Sensitivity to anti-Fas is independent of increased cathepsin D activity and adrenodoxin reductase expression occurring in NOS-3 overexpressing HepG2 cells. *Biochim. Biophys. Acta* 1853: 1182-1194.
2. Poli, G., et al. 2015. 2D-DIGE proteomic analysis identifies new potential therapeutic targets for adrenocortical carcinoma. *Oncotarget* 6: 5695-5706.

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.