SANTA CRUZ BIOTECHNOLOGY, INC.

DAX-1 (H-300): sc-13064

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adrenal hypoplasia congentia (AHC) is an X-linked disorder characterized by primary adrenal insufficiency. The disorder, which is lethal if untreated, results in adrenal insufficiency early in infancy and is characterized by low serum concentration of glucocorticoids, mineralcorticoids and androgens and failure to respond to ACTH. AHC has been mapped to chromosome Xp21 at the same or close to an X-linked locus involved in sex determination, DSS (for dosage-sensitive sex reversal). The gene corresponding to DSS and AHC (designated DAX-1 for DSS-AHC critical region on the X chromosome, gene 1) has been cloned and shown to be deleted in AHC deletion patients and mutated in AHC non-deletion patients. The carboxy terminal 250 amino acids of the DAX-1-encoded protein, DAX-1, exhibits approximately 50% continuous similarity to the ligand-binding domain of the members of the nuclear hormone receptor superfamily while the amino terminal domain contains a putative DNA-binding motif. DAX-1 binds to retinoic acid responsive elements and down regulates retinoic acid receptor-mediated transcriptional activation.

CHROMOSOMAL LOCATION

Genetic locus: NR0B1 (human) mapping to Xp21.2; Nr0b1 (mouse) mapping to X C1.

SOURCE

DAX-1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping near the N-terminus of DAX-1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13064 X, 200 µg/0.1 ml.

APPLICATIONS

DAX-1 (H-300) is recommended for detection of DAX-1 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).

Suitable for use as control antibody for DAX-1 siRNA (h): sc-35175, DAX-1 siRNA (m): sc-35176, DAX-1 shRNA Plasmid (h): sc-35175-SH, DAX-1 shRNA Plasmid (m): sc-35176-SH, DAX-1 shRNA (h) Lentiviral Particles: sc-35175-V and DAX-1 shRNA (m) Lentiviral Particles: sc-35176-V.

DAX-1 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of DAX-1: 60 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, A-431 nuclear extract: sc-2122 or DAX-1 (h): 293 Lysate: sc-158427.

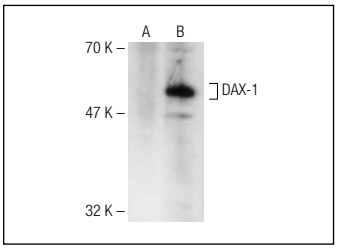
RESEARCH USE

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

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



DAX-1 (H-300): sc-13064. Western blot analysis of DAX-1 expression in non-transfected: sc-110760 (**A**) and human DAX-1 transfected: sc-158427 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Helguero, L.A., et al. 2006. DAX-1 expression is regulated during mammary epithelial cell differentiation. Endocrinology 147: 3249-3259.
2. Murayama, C., et al. 2008. Involvement of Ad4BP/SF-1, DAX-1, and COUP-TFII transcription factor on steroid production and luteinization in ovarian theca cells. Mol. Cell. Biochem. 314: 51-58.
3. Xu, B., et al. 2009. DAX-1 and steroid receptor RNA activator (SRA) function as transcriptional coactivators for steroidogenic factor 1 in steroidogenesis. Mol. Cell. Biol. 29: 1719-1734.
4. Sun, C., et al. 2009. DAX-1 binds to Oct-3/4 and inhibits its transcriptional activity in embryonic stem cells. Mol. Cell. Biol. 29: 4574-4583.
5. Kajiya, H., et al. 2009. Selection of buffer pH by the isoelectric point of the antigen for the efficient heat-induced epitope retrieval: re-appraisal for nuclear protein pathobiology. Histochem. Cell Biol. 132: 659-667.
6. Nedumaran, B., et al. 2009. DAX-1 acts as a novel corepressor of orphan nuclear receptor HNF4α and negatively regulates gluconeogenic enzyme gene expression. J. Biol. Chem. 284: 27511-27523.
7. Nedumaran, B., et al. 2010. Orphan nuclear receptor DAX-1 acts as a novel corepressor of liver X receptor α and inhibits hepatic lipogenesis. J. Biol. Chem. 285: 9221-9232.
8. Burger, L.L., et al. 2011. GnRH pulse frequency differentially regulates steroidogenic factor 1 (SF1), dosage-sensitive sex reversal-AHC critical region on the X chromosome gene 1 (DAX1), and serum response factor (SRF): potential mechanism for GnRH pulse frequency regulation of LH β transcription in the rat. Endocrine 39: 212-219.