SANTA CRUZ BIOTECHNOLOGY, INC.

CYP21A2 (H-300): sc-134566

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. P450 enzymes are classified into subfamilies based on their sequence similarities. CYP21A2 localizes to the endoplasmic reticulum and hydroxylates steroids at the 21 position. Activity of CYP21A2 is required for the synthesis of steroid hormones, including cortisol and aldosterone. Mutations in this gene are the primary cause of congenital adrenal hyperplasia (CAH), an autosomal recessive disorder. Gene conversion events involving the functional CYP21A2 gene (C21B) and a related pseudogene (C21A) located near the C21B gene may account for the majority of cases of steroid 21-hydroxylase deficiency.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: CYP21A2 (human) mapping to 6p21.33; Cyp21a1 (mouse) mapping to 17 B1.

SOURCE

CYP21A2 (H-300) is a rabbit polyclonal antibody raised against amino acids 21-320 mapping near the N-terminus of CYP21A2 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.

APPLICATIONS

CYP21A2 (H-300) is recommended for detection of CYP21A2 of human origin and CYP21A1 of mouse and rat 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).

Molecular Weight of CYP21A2: 52 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.