SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

CYP17A1 (h2): 293T Lysate: sc-116774

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, such as CYP1A, CYP2A, CYP2C, CYP2D, CYP4A14, CYP7A, CYP7B, CYP8B, CYP11A, CYP17A1, CYPI9 and CYP27A, based on sequence similarities. CYP17A (17 α-hydroxylase/17,20-lyase) is important for the conversion of pregnenolone and progesterone to dehydroepiandrosterone (DHEA) and androstenedione. In this process, it catalyzes both the 17 α-hydroxylation and the 17,20-lyase reaction. CYP17A1 is crucial during sexual development, both during fetal development and during puberty, and is intracellularly regulated by cAMP levels. Defects in the CYP17A1 gene, which encodes for the protein, may cause adrenal hyperplasia type V (AH-V) which is characterized by hypokalemia and hypertension. Male patients affected by AH-V do not undergo normal sexual differentiation and develop female external genitalia and do not undergo pubertal development.

REFERENCES

1. Ahlgren, R., et al. 1992. Compound heterozygous mutations (Arg 239 — stop, Pro 342—Thr) in the CYP17 (P45017 α) gene lead to ambiguous external genitalia in a male patient with partial combined 17 α-hydroxylase/17,20-lyase deficiency. J. Clin. Endocrinol. Metab. 74: 667-672.
2. Yanase, T., et al. 1992. Molecular basis of apparent isolated 17,20-lyase deficiency: compound heterozygous mutations in the C-terminal region (Arg(496) — Cys, Gln(461) — Stop) actually cause combined 17 α-hydroxylase/17,20-lyase. Biochim. Biophys. Acta 1139: 275-279.
3. Monno, S., et al. 1993. Mutation of histidine 373 to leucine in cytochrome P450c17 causes 17 α-hydroxylase deficiency. J. Biol. Chem. 268: 25811-25817.
4. Fardella, C.E., et al. 1994. Point mutation of Arg440 to His in cytochrome P450c17 causes severe 17 α-hydroxylase deficiency. J. Clin. Endocrinol. Metab. 79: 160-164.
5. Biason-Lauber, A., et al. 2000. 17 α-hydroxylase/17,20-lyase deficiency as a model to study enzymatic activity regulation: role of phosphorylation. J. Clin. Endocrinol. Metab. 85: 1226-1231.
6. Martin, R.M., et al. 2003. P450c17 deficiency in Brazilian patients: biochemical diagnosis through progesterone levels confirmed by CYP17 genotyping. J. Clin. Endocrinol. Metab. 88: 5739-5746.
7. Fukami, M. et al. 2005. Cytochrome P450 oxidoreductase gene mutations and Antley-Bixler syndrome with abnormal genitalia and/or impaired steroidogenesis: molecular and clinical studies in 10 patients. J. Clin. Endocrinol. Metab. 90: 414-426.
8. Zhou, Q. et al. 2005. Androgen-regulated transcripts in the neonatal mouse testis as determined through microarray analysis. Biol. Reprod. 72: 1010-1019.

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: CYP17A1 (human) mapping to 10q24.32.

PRODUCT

CYP17A1 (h2): 293T Lysate represents a lysate of human CYP17A1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CYP17A1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CYP17A1 antibodies. Recommended use: 10-20 µl per lane.

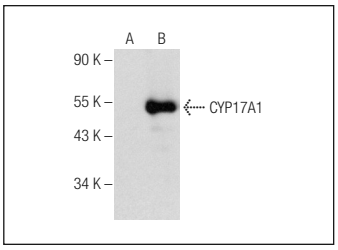
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CYP17A1 (G-4): sc-376711 is recommended as a positive control antibody for Western Blot analysis of enhanced human CYP17A1 expression in CYP17A1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

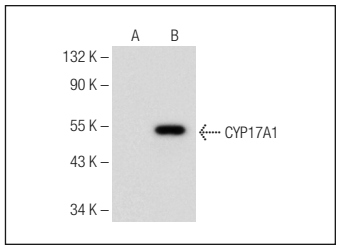
RECOMMENDED SUPPORT REAGENTS

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



CYP17A1 (G-4): sc-376711. Western blot analysis of CYP17A1 expression in non-transfected: sc-117752 (**A**) and human CYP17A1 transfected: sc-116774 (**B**) 293T whole cell lysates.



CYP17A1 (D-12): sc-374244. Western blot analysis of CYP17A1 expression in non-transfected: sc-117752 (**A**) and human CYP17A1 transfected: sc-116774 (**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.