SANTA CRUZ BIOTECHNOLOGY, INC.

CYP1A1 (h): 293T Lysate: sc-114027

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

P450 enzymes constitute a family of monooxygenase enzymes that are involved in the metabolism of a wide array of endogenous and xenobiotic compounds. Several P450 enzymes have been classified by sequence similarities as members of the CYP1A and CYP2A subfamilies. NADPH cytochrome P450 reductase is a microsomal enzyme responsible for the transfer of electrons from NADPH to cytochrome P450 enzymes during the P450 catalytic cycle. NADPH cytochrome P450 reductase is localized to the endoplasmic reticulum where it is also able to transfer electrons to hemeoxygenase and cytochrome β5. NADPH cytochrome P450 reductase is structurally related to two separate flavoprotein families, ferredoxin nucleotide reductase (FNR) and flavodoxin. Electron transfer of NADPH cytochrome P450 reductase requires the binding of two flavin cofactors, FAD and FMN, to the FNR and flavodoxin domains, respectively.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CYP1A1 (human) mapping to 15q24.1

PRODUCT

CYP1A1 (h): 293T Lysate represents a lysate of human CYP1A1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CYP1A1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CYP1A1 antibodies. Recommended use: 10-20 µl per lane.

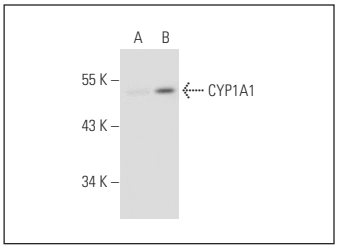
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-tranfected 293T cells.

CYP1A1 (B-4): sc-25304 is recommended as a positive control antibody for Western Blot analysis of enhanced human CYP1A1 expression in CYP1A1 transfected 293T cells(starting dilution 1:100, dilution range 1:100-1:1,000).

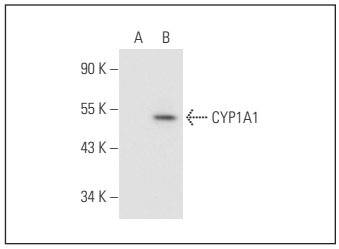
RECOMMENDED SUPPORT REAGENTS

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



CYP1A1 (B-4): sc-25304. Western blot analysis of CYP1A1 expression in non-transfected: sc-117752 (**A**) and human CYP1A1 transfected: sc-114027 (**B**) 293T whole cell lysates.



CYP1A1 (1A3-03): sc-101828. Western blot analysis of CYP1A1 expression in non-transfected: sc-117752 (**A**) and human CYP1A1 transfected: sc-114027 (**B**) 293T whole cell lysates.

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.

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.