SANTA CRUZ BIOTECHNOLOGY, INC.

CYP2S1 (S-12): sc-49430

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. CYP2S1, a member of the CYP2 subfamily, is expressed in a wide variety of epithelial cells in extrahepatic tissues, specifically the respiratory tract, gastrointestinal tract, skin and other tissues frequently exposed to xenobiotics. CYP2S1 localizes to the endoplasmic reticulum where it metabolizes both endogenous and exogenous substrates such as retinoic acid, aromatic hydrocarbons and some cellular substances. CYP2S1 is also involved in the metabolism of topical drugs and mediates the response to photochemotherapy in psoriasis. Dioxin induces CYP2S1, while aryl hydrocarbon receptor (AHR) and aryl hydrocarbon nuclear translocator (ARNT) regulate this induction.

REFERENCES

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3. Saarikoski, S.T., et al. 2004. Identification of genetic polymorphisms of CYP2S1 in a Finnish Caucasian population. Mutat. Res. 554: 267-277.
4. Choudhary, D., et al. 2005. Expression patterns of mouse and human CYP orthologs (families 1-4) during development and in different adult tissues. Arch. Biochem. Biophys. 436: 50-61.
5. Ingelman-Sundberg, M., et al. 2005. The human genome project and novel aspects of cytochrome P450 research. Toxicol. Appl. Pharmacol. 207: 52-56.
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7. Kumarakulasingham, M., et al. 2005. Cytochrome p450 profile of colorectal cancer: identification of markers of prognosis. Clin. Cancer. Res. 11: 3758-3765.
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CHROMOSOMAL LOCATION

Genetic locus: CYP2S1 (human) mapping to 19q13.1; Cyps21 (mouse) mapping to 7 A3.

SOURCE

CYP2S1 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CYP2S1 of mouse origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49430 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CYP2S1 (S-12) is recommended for detection of CYP2S1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 CYP2S1 siRNA (m): sc-60484, CYP2S1 shRNA Plasmid (m): sc-60484-SH and CYP2S1 shRNA (m) Lentiviral Particles: sc-60484-V.

Molecular Weight of CYP2S1: 56 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.