

CYP2S1 (M-135): sc-98957

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. 2005. The human genome project and novel aspects of cytochrome P450 research. *Toxicol. Appl. Pharmacol.* 207: 52-56.
6. Karlgren, M., et al. 2005. Novel extra-hepatic cytochrome P450s. *Toxicol. Appl. Pharmacol.* 207: 57-61.
7. Kumarakulasingham, M., et al. 2005. Cytochrome P450 profile of colorectal cancer: identification of markers of prognosis. *Clin. Cancer Res.* 11: 3758-3765.

CHROMOSOMAL LOCATION

Genetic locus: CYP2S1 (human) mapping to 19q13.2; Cyp2s1 (mouse) mapping to 7 A3.

SOURCE

CYP2S1 (M-135) is a rabbit polyclonal antibody raised against amino acids 141-275 mapping within an internal region of CYP2S1 of mouse origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

CYP2S1 (M-135) is recommended for detection of CYP2S1 of mouse, rat and, to a lesser extent, 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 CYP2S1 siRNA (h): sc-60483, CYP2S1 siRNA (m): sc-60484, CYP2S1 shRNA Plasmid (h): sc-60483-SH, CYP2S1 shRNA Plasmid (m): sc-60484-SH, CYP2S1 shRNA (h) Lentiviral Particles: sc-60483-V and CYP2S1 shRNA (m) Lentiviral Particles: sc-60484-V.

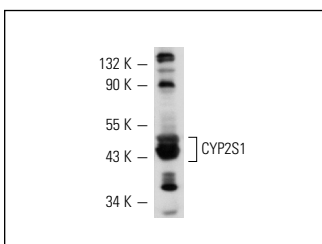
Molecular Weight of CYP2S1: 56 kDa.

Positive Controls: CYP2S1 (h): 293T Lysate: sc-115127 or COLO 320DM cell lysate: sc-2226.

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.

DATA



CYP2S1 (M-135): sc-98957. Western blot analysis of CYP2S1 expression in NIH/3T3 whole cell lysate.

RESEARCH USE

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

MONOS
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Try **CYP2S1 (A-1): sc-515464** or **CYP2S1 (G-1): sc-365806**, our highly recommended monoclonal alternatives to CYP2S1 (M-135).