

CYP2F1 (H-41): sc-67282

BACKGROUND

CYP2F1 (cytochrome P450 2F1) is a 491 amino acid protein encoded by the human gene CYP2F1. CYP genes are highly polymorphic and can affect individual drug response and adverse reactions to a great extent. This gene product variation arises from several copy number variants (CNV), missense mutations, insertions and deletions and mutations that affect gene expression and activity of mainly CYP2A6, CYP2B6, CYP2C9, CYP2C19 and CYP2D6. There are 57 active cytochrome P450 (CYP) genes and 58 pseudogenes known to be present in the human genome. CYP2F1 is able to dealkylate ethoxycoumarin, propoxycoumarin and pentoxyresorufin but possesses no activity toward ethoxyresorufin and only trace dearylation activity toward benzyloxyresorufin. It bio-activates 3-methylindole (3MI) by dehydrogenation to the putative electrophile 3-methylene-indolenine.

CHROMOSOMAL LOCATION

Genetic locus: CYP2F1 (human) mapping to 19q13.2; Cyp2f2 (mouse) mapping to 7 A3.

SOURCE

CYP2F1 (H-41) is a rabbit polyclonal antibody raised against amino acids 451-491 mapping at the C-terminus of CYP2F1 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.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

CYP2F1 (H-41) is recommended for detection of CYP2F1 of human origin and CYP2F2 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).

CYP2F1 (H-41) is also recommended for detection of CYP2F1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CYP2F1 siRNA (h): sc-62182, CYP2F2 siRNA (m): sc-62183, CYP2F1 shRNA Plasmid (h): sc-62182-SH, CYP2F2 shRNA Plasmid (m): sc-62183-SH, CYP2F1 shRNA (h) Lentiviral Particles: sc-62182-V and CYP2F2 shRNA (m) Lentiviral Particles: sc-62183-V.

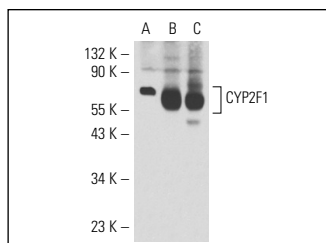
Molecular Weight of CYP2F1: 56 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, rat lung extract: sc-2396 or mouse lung extract: sc-2390.

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



CYP2F1 (H-41): sc-67282. Western blot analysis of CYP2F1 expression in WI-38 whole cell lysate (A) and rat lung (B) and mouse lung (C) tissue extracts.

SELECT PRODUCT CITATIONS

1. Weems, J.M. and Yost, G.S. 2010. 3-Methylindole metabolites induce lung CYP1A1 and CYP2F1 enzymes by AhR and non-AhR mechanisms, respectively. *Chem. Res. Toxicol.* 23: 696-704.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **CYP2F1 (E-10): sc-377499**, our highly recommended monoclonal alternative to CYP2F1 (H-41).