

# CYP2F1 (Q-15): sc-66360

## BACKGROUND

CYP2F1 (cytochrome P450 2F1) is a human-specific membrane-bound protein usually localized to the endoplasmic reticulum membrane. Cytochromes, which are incredibly polymorphic, generally catalyze redox reactions. CYP2F1 is a lung-specific cytochrome P450 (pigment at 450 nm) that is involved in metabolizing potentially carcinogenic pneumotoxins. Its polymorphic nature likely has an impact on the sensitivity of an individual to such toxins. Specifically within Clara cells, CYP2F1 converts skatole (3-methylindole) to 3-methyleindolenine, an electrophile that disrupts cell functions by forming dangerous protein adducts. Skatole has been used to supplement flavor in cigarettes. CYP2F2 is the murine homolog of human CYP2F1.

## REFERENCES

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2. Allagui, M.S., Vincent, C., El feki, A., Gaubin, Y. and Croute, F. 2007. Lithium toxicity and expression of stress-related genes or proteins in A549 cells. *Biochim. Biophys. Acta* 1773: 1107-1115.
3. Kartha, J.S. and Yost, G.S. 2007. Mechanism-based inactivation of lung-selective cytochrome P450 CYP2F enzymes. *Drug Metab. Dispos.* 36: 155-162.
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## CHROMOSOMAL LOCATION

Genetic locus: CYP2F1 (human) mapping to 19q13.2.

## SOURCE

CYP2F1 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-66360 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

CYP2F1 (Q-15) is recommended for detection of CYP2F1 of 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 CYP2F1 siRNA (h): sc-62182, CYP2F1 shRNA Plasmid (h): sc-62182-SH and CYP2F1 shRNA (h) Lentiviral Particles: sc-62182-V.

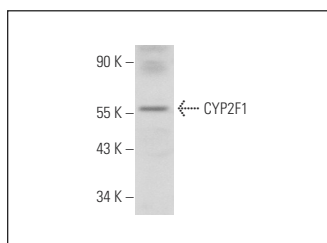
Molecular Weight of CYP2F1: 56 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



CYP2F1 (Q-15): sc-66360. Western blot analysis of CYP2F1 expression in HeLa whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **CYP2F1 (E-10): sc-377499**, our highly recommended monoclonal alternative to CYP2F1 (Q-15).