**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-methyleneindolenine, an electrophile that disrupts cell functions by forming dangerous protein adducts. CYP2F2 is the murine homolog of human CYP2F1.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

CYP2F1 (E-10) is a mouse monoclonal antibody raised against amino acids 451-491 mapping at the C-terminus of CYP2F1 of human origin.

**RESEARCH USE**

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

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

CYP2F1 (E-10) is recommended for detection of CYP2F1 of human origin and CYP2F2 of mouse and rat origin by Western Blotting (starting dilution 1:100, 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, 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.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ B-P HRP: sc-516102 or m-IgG κ B- HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgG κ B- FITC: sc-516140 or m-IgG κ B-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**STORAGE**

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

**PROTOCOLS**

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