**BACKGROUND**

CYP1A2, also called cytochrome P450 1A2, is a heme-thiolate monooxygenase enzyme involved in the NADPH-dependent electron transport pathway of liver microsomes. A member of the cytochrome P450 family, CYP1A2 oxidizes fatty acids, steroids and xenobiotics. It is also involved in the metabolism of imipramine, propranol and clozapine. CYP1A2 localizes to the membrane of the endoplasmic reticulum. It is induced by 3-methylcholanthrene, insulin, modafinil and hyperforin and inhibited by many fluoroquinolone antibiotics, caffeine, fluvoxamine and cimetidine. In addition, the involvement of CYP1A2 in the metabolism of estrogen is associated with a reduced risk of breast cancer.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CYP1A2/CYP1A1 (human) mapping to 15q24.1; Cyp1a2/Cyp1a1 (mouse) mapping to 9 B.

**SOURCE**

CYP1A2 (16VII F10F12) is a mouse monoclonal antibody raised against liver cytochrome P450 1A2 of rat origin.

**PRODUCT**

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

**APPLICATIONS**

CYP1A2 (16VII F10F12) is recommended for detection of CYP1A2 and, to a lesser extent, CYP1A1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate); not recommended for detection of rat CYP2A1, 2B1, 2B2, 2C6, 2C7, 2C11, 4A1, 4A2 and 4A3.

Molecular Weight of CYP1A2: 54 kDa.
Positive Controls: mouse liver extract: sc-2256, rat liver extract: sc-2395 or CYP1A2 (m): 293T Lysate: sc-119564.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

CYP1A2 (16VII F10F12): sc-73476. Western blot analysis of CYP1A2 expression in mouse liver (A) and rat liver (B) tissue extracts.

CYP1A2 (16VII F10F12): sc-73476. Western blot analysis of CYP1A2 expression in non-transfected: sc-117752 (A) and mouse CYP1A2 transfected: sc-119564 (B) 293T whole cell lysates.

**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.

**PROTOCOLS**

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