**BACKGROUND**

CYP3A proteins are P450 monooxygenases and in animals, P450 enzymes serve two major functions: biosynthesis of steroids, fatty acids and bile acids, and the metabolism of endogenous and exogenous substrates. A wide variety of exogenous substrates are metabolized by P450 enzymes, including toxins and drugs. The four major families involved in drug metabolism are CYP1, 2, 3 and 4. Cyp3a1, also designated Cyp3a23/3a1, is specifically expressed in rat. There are corresponding homologs described in human and mouse, including CYP3A5 and Cyp3a11, respectively. In humans, CYP3A4 undergoes alternative splicing encoding different isoforms, including one previously designated CYP3A3. CYP3A4 localizes to the endoplasmic reticulum in liver and small intestine, and its expression is induced by glucocorticoids and some pharmacological agents.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CYP3A4 (human) mapping to 7q22.1; Cyp3a11 (mouse) mapping to 5 G2.

**SOURCE**

CYP3A1 (4i69) is a mouse monoclonal antibody raised against liver Cyp3a1 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**

CYP3A1 (4i69) is recommended for detection of CYP3A4 of human origin, Cyp3a1 of rat origin, and potentially Cyp3a11 of mouse origin (based on inducibility) 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)]; may cross react with other CYP3A gene family members of mouse, rat and human origin.

Suitable for use as control antibody for CYP3A4 siRNA (h): sc-43711, Cyp3a11 siRNA (m): sc-155878, CYP3A4 shRNA Plasmid (h): sc-43711-SH, Cyp3a11 shRNA Plasmid (m): sc-155878-SH, CYP3A4 shRNA (h) Lentiviral Particles: sc-43711-V and Cyp3a11 shRNA (m) Lentiviral Particles: sc-155878-V.

Molecular Weight of CYP3A1: 51 kDa.

Positive Controls: rat liver extract: sc-2395 or mouse liver extract: sc-2256.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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**

CYP3A4 (4i69): sc-70903. Western blot analysis of CYP3A4 expression in mouse liver (A) and rat liver (B) tissue extracts.

**SELECT PRODUCT CITATIONS**


**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.