**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. The hepatic Cyp3a3a1 protein is detected throughout ciliated and nonciliated cells in seven-day-old rats, and is only detected in the apex of these cells in adult rats.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CYP3A4 (human) mapping to 7q22.1; Cyp3a41 (mouse) mapping to 5 G2.

**SOURCE**

CYP3A1 (P6) is a mouse monoclonal antibody raised against liver cytochrome P4503A1 of rat origin.

**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.

CYP3A4 (P6) is available conjugated to agarose (sc-53246 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53246 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53246 PE), fluorescein (sc-53246 FITC), Alexa Fluor® 488 (sc-53246 AF488), Alexa Fluor® 546 (sc-53246 AF546), Alexa Fluor® 594 (sc-53246 AF594) or Alexa Fluor® 647 (sc-53246 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53246 AF680) or Alexa Fluor® 790 (sc-53246 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

CYP3A4 (P6) is recommended for detection of CYP3A4 of human origin, Cyp3a41a of mouse origin and Cyp3a3a1 of rat 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)]; may cross react with CYP3A5 of human origin; Cyp3a11, Cyp3a41b, Cyp3a44 and Cyp3a16 of mouse origin; and LOC100910877 of rat origin.

Molecular Weight of CYP3A1: 51 kDa.

Positive Controls: rat liver extract: sc-2395, Ca Ski whole cell lysate: sc-364380 or COLO 205 whole cell lysate: sc-364177.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx 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**

**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.

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