CYP3A4 (P6): sc-53246

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.

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 P450 3A1 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.

CYP3A4 (P6) is a trademark of Molecular Probes, Inc., Oregon, USA.

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-364360 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-IgG BX BP-HRP; sc-516102 or m-IgG BX BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

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

DATA

SELECT PRODUCT CITATIONS

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