CYP3A1 (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 CYP 1, 2, 3 and 4. The hepatic CYP3A1 protein is detected throughout ciliated and nonciliated cells in 7-day-old rats, and is only detected in the apex of these cells in adult rats. Rat CYP3A1 and CYP3A2 share 89% homology, but differ by 3 out of 5 of their C-terminal residues.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**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.

**APPLICATIONS**

CYP3A1 (P6) is recommended for detection of CYP3A1 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)].

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-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-20548. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

CYP3A1 (P6): sc-53246. Western blot analysis of CYP3A1 expression in HT-1080 (A), COLO 205 (B), Hep G2 (C) and Ca Ski (D) whole cell lysates.

CYP3A1 (P6): sc-53246. Western blot analysis of CYP3A1 expression in rat liver tissue extract.

**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.