

# CYP2C6 (213xB12C6): sc-73484

## BACKGROUND

The cytochrome P450 family is responsible for oxidation of many therapeutic agents as well as steroids, fatty acids and many other endogenous substances. The cytochrome P4502C subfamily comprises a group of constitutive microsomal hemoproteins which are expressed primarily in liver and which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. In humans, this subfamily is responsible for metabolism of a variety of therapeutic drugs such as warfarin, mephenytoin, omeprazole and anti-inflammatory drugs. CYP2C6 is a form of rat liver microsomal cytochrome P450 that is expressed and inducible by phenobarbital in differentiated Reuber hepatoma cells that express many hepatocyte-specific genes but is not expressed in the lung, kidney or brain.

## REFERENCES

1. Venepally, P., Chen, D. and Kemper, B. 1992. Transcriptional regulatory elements for basal expression of cytochrome P450IIC genes. *J. Biol. Chem.* 267: 17333-17338.
2. Shaw, P.M., Weiss, M.C. and Adesnik, M. 1994. Hepatocyte nuclear factor 3 is a major determinant of CYP2C6 promoter activity in hepatoma cells. *Mol. Pharmacol.* 46: 79-87.
3. Ibeanu, G.C. and Goldstein, J.A. 1995. Transcriptional regulation of human CYP2C genes: functional comparison of and CYP2C18 promoter regions. *Biochemistry* 34: 8028-8036.
4. Ozalp, C., Szczesna-Skorupa, E. and Kemper, B. 2006. Identification of membrane-contacting loops of the catalytic domain of cytochrome P450 2C2 by tryptophan fluorescence scanning. *Biochemistry* 45: 4629-4637.
5. Lewis, D.F., Ito, Y. and Goldfarb, P.S. 2006. Investigating human P450s involved in drug metabolism via homology with high-resolution P450 crystal structures of the CYP2C subfamily. *Curr. Drug Metab.* 7: 589-598.

## CHROMOSOMAL LOCATION

Genetic locus: CYP2C9 (human) mapping to 10q23.33; Cyp2c29 (mouse) mapping to 19 C3.

## SOURCE

CYP2C6 (213xB12C6) is a mouse monoclonal antibody raised against CYP2C6 purified from rat liver.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

CYP2C6 (213xB12C6) is recommended for detection of CYP2C9 and other CYP2C proteins of human origin, phenobarbital-induced CYP2C proteins of mouse origin, and CYP2C6 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with CYP2C8.

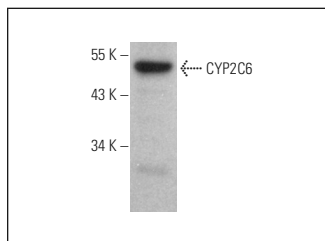
Molecular Weight of CYP2C6: 49 kDa.

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

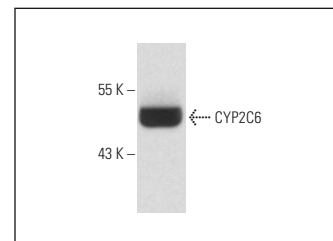
## RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DTTA



CYP2C6 (213xB12C6): sc-73484. Western blot analysis of CYP2C6 expression in rat liver tissue extract.



CYP2C6 (213xB12C6): sc-73484. Western blot analysis of CYP2C6 expression in mouse liver tissue extract.

## RESEARCH USE

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