

CYP2J6 (M-60): sc-67275

BACKGROUND

Cytochrome P450 proteins are heme-thiolate monooxygenases that mediate NADPH-dependent electron transport and function to oxidize a variety of structurally unrelated compounds, including steroids, fatty acids and xenobiotics. Specifically, Cytochrome P450s are responsible for metabolizing arachidonic acid to hydroxyeicosatetraenoic acid (a regulator of blood pressure) and epoxyeicosatrienoic acid (a molecule involved in signaling events). Murine CYP2J6 (cytochrome P450, family 2, subfamily j, polypeptide 6), also known as CYP2J6 or arachidonic acid epoxygenase, is a 501 amino acid peripheral membrane protein of the endoplasmic reticulum and microsome that belongs to the cytochrome P450 family. Highly expressed in small intestine, CYP2J6 assists in the metabolism of benzphetamine, but not arachidonic acid, and is encoded by a gene located on murine chromosome 4 C5.

REFERENCES

1. Nebert, D.W., et al. 1991. The P450 superfamily: update on new sequences, gene mapping, and recommended nomenclature. *DNA Cell Biol.* 10: 1-14.
2. Zeldin, D.C., et al. 1997. CYP2J subfamily cytochrome P450s in the gastrointestinal tract: expression, localization, and potential functional significance. *Mol. Pharmacol.* 51: 931-943.
3. Ma, J., et al. 1998. Mapping of the CYP2J cytochrome P450 genes to human chromosome 1 and mouse chromosome 4. *Genomics* 49: 152-155.
4. Scarborough, P.E., et al. 1999. P450 subfamily CYP2J and their role in the bioactivation of arachidonic acid in extrahepatic tissues. *Drug Metab. Rev.* 31: 205-234.
5. Ma, J., et al. 2002. Molecular cloning and characterization of mouse CYP2J6, an unstable cytochrome P450 isoform. *Biochem. Pharmacol.* 64: 1447-1460.
6. Seubert, J., et al. 2004. Enhanced postischemic functional recovery in CYP2J2 transgenic hearts involves mitochondrial ATP-sensitive K⁺ channels and p42/p44 MAPK pathway. *Circ. Res.* 95: 506-514.

CHROMOSOMAL LOCATION

Genetic locus: *Cyp2j6* (mouse) mapping to 4 C5.

SOURCE

CYP2J6 (M-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping at the N-terminus of CYP2J6 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG 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.

RESEARCH USE

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

APPLICATIONS

CYP2J6 (M-60) is recommended for detection of CYP2J6 of mouse and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CYP2J6 siRNA (h): sc-142705, CYP2J6 shRNA Plasmid (h): sc-142705-SH and CYP2J6 shRNA (h) Lentiviral Particles: sc-142705-V.

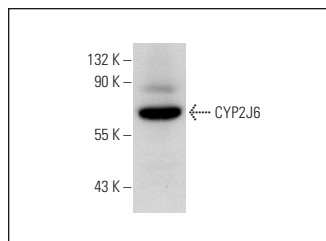
Molecular Weight of CYP2J6: 57 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or mouse heart extract: sc-2254.

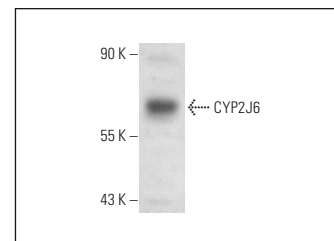
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CYP2J6 (M-60): sc-67275. Western blot analysis of CYP2J6 expression in mouse heart tissue extract.



CYP2J6 (M-60): sc-67275. Western blot analysis of CYP2J6 expression in Hep G2 whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.