

CYP2C8/9/18/19 (K-21): sc-23435

BACKGROUND

The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. The CYP2C (CYP11C) subfamily comprises a group of constitutively expressed genes, some phenobarbital-induced genes, and several genes associated with sex-specific expression. At least seven genes were originally assigned to the CYP2C subfamily, which maps to human 10q24.1-q24.3 and mouse chromosome 19. Humans contain fewer genes in this cluster than do mice or rats. Four genes are arranged in the following order and orientation along human chromosome 10: RBP4, CYP2C18, CYP2C19/CYP2C9, and CYP2C8. The previously identified CYP2C10 is an artifact of CYP2C9 and not a distinct isoform. All of the CYP2C proteins localize to the endoplasmic reticulum.

REFERENCES

1. Nebert, D.W., et al. 1987. The P450 gene superfamily: recommended nomenclature. *DNA* 6: 1-11.
2. Riddell, D.C., et al. 1987. Regional assignment for the genes encoding human P450III A3 (CYP3) and P450IIC9 (CYP2C). *Cytogenet. Cell Genet.* 46: 682.
3. Spurr, N.K., et al. 1987. Isolation of human cytochrome P450 cDNA for the study of linkage in human disease. *Cytogenet. Cell Genet.* 46: 698.
4. Gray, I.C., et al. 1995. A 2.4-megabase physical map spanning the CYP2C gene cluster on chromosome 10q24. *Genomics* 28: 328-332.
5. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 124020. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. LocusLink Report (LocusID: 1559). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: CYP2C9/CYP2C19/CYP2C18 (human) mapping to 10q23.33.

SOURCE

CYP2C8/9/18/19 (K-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CYP2C9 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23435 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

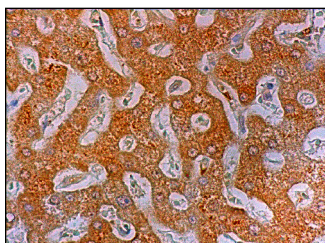
CYP2C8/9/18/19 (K-21) is recommended for detection of CYP2C8/9/18/19 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CYP2C8/9/18/19 (K-21) is also recommended for detection of CYP2C8/9/18/19 in additional species, including equine, bovine and porcine.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



CYP2C8/9/18/19 (K-21): sc-23435. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Lim, Y.P., et al. 2014. Inhibition of cytochrome P450 2C9 expression and activity *in vitro* by allyl isothiocyanate. *Planta Med.* 80: 1247.

RESEARCH USE

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