

CYP4A14 (V-16): sc-46088

BACKGROUND

Cytochrome p450 proteins are heme-thiolate monooxygenases that mediate NADPH-dependent electron transport and oxidize a variety of structurally unrelated compounds, including steroids, fatty acids and xenobiotics. Cytochrome P450s metabolize arachidonic acid to hydroxyeicosatetraenoic acids and epoxyeicosatrienoic acids. In the kidney of female mice, CYP4A isoforms CYP4A10 and CYP4A14 are present in proximal tubules. Mouse CYP4A14 has a GC rich sequence immediately 5' of the transcription start site, and is similar to the rat CYP4A2 and CYP4A3 genes. The mouse CYP4A14 gene spans approximately 13 kb, and contains 12 exons; sequence similarity to the rat CYP4A2 gene sequence falls off 300 bp upstream from the start site.

REFERENCES

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- Wang, J., et al. 2004. Expression of cytochrome P450-4A isoforms in the rat cremaster muscle microcirculation. *Microcirculation* 11: 89-96.

CHROMOSOMAL LOCATION

Genetic locus:Cyp4a14 (mouse) mapping to 4 D1.

SOURCE

CYP4A14 (V-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CYP4A14 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.

Blocking peptide available for competition studies, sc-46088 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CYP4A14 (V-16) is recommended for detection of a broad range of CYP4A family members of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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) 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.

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.

PROTOCOLS

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