

Cyp4f17 (E-14): sc-246398

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). Cyp4f17 (cytochrome P450, family 4, subfamily f, polypeptide 17), also known as EG208285, is a 524 amino acid protein that is encoded by a gene mapping to mouse chromosome 17 B1.

REFERENCES

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2. Bylund, J., et al. 1999. Gene expression of a novel cytochrome P450 of the CYP4F subfamily in human seminal vesicles. *Biochem. Biophys. Res. Commun.* 261: 169-174.
3. Bylund, J., et al. 2000. Identification of CYP4F8 in human seminal vesicles as a prominent 19-hydroxylase of prostaglandin endoperoxides. *J. Biol. Chem.* 275: 21844-21849.
4. Oliw, E.H., et al. 2001. Oxidation of prostaglandin H₂ and prostaglandin H₂ analogues by human cytochromes P450: analysis of ω-side chain hydroxy metabolites and four stereoisomers of 5-hydroxyprostaglandin I(1) by mass spectrometry. *Biochem. Pharmacol.* 62: 407-415.
5. Stark, K., et al. 2003. Expression of CYP4F8 (prostaglandin H 19-hydroxylase) in human epithelia and prominent induction in epidermis of psoriatic lesions. *Arch. Biochem. Biophys.* 409: 188-196.
6. Nelson, D.R., et al. 2004. Comparison of cytochrome P450 (CYP) genes from the mouse and human genomes, including nomenclature recommendations for genes, pseudogenes and alternative-splice variants. *Pharmacogenetics* 14: 1-18.
7. Stark, K., et al. 2005. Oxygenation of polyunsaturated long chain fatty acids by recombinant CYP4F8 and CYP4F12 and catalytic importance of Tyr-125 and Gly-328 of CYP4F8. *Arch. Biochem. Biophys.* 441: 174-181.

CHROMOSOMAL LOCATION

Genetic locus: Cyp4f17 (mouse) mapping to 17 B1.

SOURCE

Cyp4f17 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cyp4f17 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-246398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cyp4f17 (E-14) is recommended for detection of Cyp4f17 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 Cyp4f17 siRNA (m): sc-142733, Cyp4f17 shRNA Plasmid (m): sc-142733-SH and Cyp4f17 shRNA (m) Lentiviral Particles: sc-142733-V.

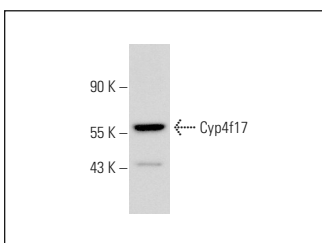
Molecular Weight of Cyp4f17: 66 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

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.

DATA



Cyp4f17 (E-14): sc-246398. Western blot analysis of Cyp4f17 expression in PC-12 whole cell lysate.

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.