

CYP4F8 (T-17): sc-246396

BACKGROUND

The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. P450 enzymes are classified into subfamilies based on their sequence similarities. CYP4F8 (cytochrome P450 4F8), also known as CPF8 or CYP1VF8, is a 520 amino acid member of the cytochrome P450 protein family. Localized to endoplasmic reticulum membrane and microsome membranes, CYP4F8 hydroxylates arachidonic acid to (18R)-hydroxyarachidonate. CYP4F8 also catalyzes the hydroxylation of PGI₂ and carbaprostacyclin, as well as the epoxidation of 4,7,10,13,16,19-(Z)-docosahexaenoic acid and 7,10,13,16,19-(Z)-docosapentaenoic acid. CYP4F8 is encoded by a gene that is part of a cluster of cytochrome P450 genes on human chromosome 19.

REFERENCES

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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.
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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.
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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.
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CHROMOSOMAL LOCATION

Genetic locus: CYP4F8 (human) mapping to 19p13.12.

SOURCE

CYP4F8 (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CYP4F8 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-246396 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CYP4F8 (T-17) is recommended for detection of CYP4F8 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CYP4F8 siRNA (h): sc-105261, CYP4F8 shRNA Plasmid (h): sc-105261-SH and CYP4F8 shRNA (h) Lentiviral Particles: sc-105261-V.

Molecular Weight of CYP4F8: 60 kDa.

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.