SANTA CRUZ BIOTECHNOLOGY, INC.

CYP39A1 (Y-13): sc-138908

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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). CYP39A1 (cytochrome P450, family 39, subfamily A, polypeptide 1), also known as 24-hydroxycholesterol 7-α-hydroxylase, is a 469 amino acid peripheral membrane protein that localizes to both the microsome and the endoplasmic reticulum and belongs to the cytochrome P450 family. Using heme groups as cofactors, CYP39A1 is involved in the bile acid metabolism. Specifically expressed in liver, CYP39A1 converts 24-hydroxycholesterol into a 7-α-hydroxylated product.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CYP39A1 (human) mapping to 6p12.3; Cyp39a1 (mouse) mapping to 17 B3.

SOURCE

CYP39A1 (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CYP39A1 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-138908 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CYP39A1 (Y-13) is recommended for detection of CYP39A1 of mouse, rat and 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); non cross-reactive with other CYP family members.

CYP39A1 (Y-13) is also recommended for detection of CYP39A1 in additional species, including bovine and porcine.

Suitable for use as control antibody for CYP39A1 siRNA (h): sc-95490, CYP39A1 siRNA (m): sc-142711, CYP39A1 shRNA Plasmid (h): sc-95490-SH, CYP39A1 shRNA Plasmid (m): sc-142711-SH, CYP39A1 shRNA (h) Lentiviral Particles: sc-95490-V and CYP39A1 shRNA (m) Lentiviral Particles: sc-142711-V.

Molecular Weight of CYP39A1: 54 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.