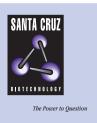
# SANTA CRUZ BIOTECHNOLOGY, INC.

# CYP2R1 (T-12): sc-48987



BACKGROUND

P450 enzymes constitute a family of monooxygenase enzymes that are involved in the metabolism of a wide array of endogenous and xenobiotic compounds. There are currently 57 known active cytochrome P450 (CYP) genes and 58 known pseudogenes present in the human genome. CYP2R1 is a 501 amino acid protein which belongs to the CYP2 family of cytochrome P450 proteins. These proteins are usually involved in the metabolism of foreign compounds. CYP2R1 acts as a major vitamin D 25-hydroxylase. A homozygous mutation in the CYP2R1 gene eliminates the vitamin D3 25-hydroxylase activity of the CYP2R1 protein, causing 25-hydroxyvitamin D3 deficiency. Manifestations of 25-hydroxyvitamin D3 and various symptoms of vitamin D deficiency, including skeletal abnormalities, hypophosphatemia and hypocalcemia.

#### REFERENCES

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#### CHROMOSOMAL LOCATION

Genetic locus: CYP2R1 (human) mapping to 11p15.2; Cyp2r1 (mouse) mapping to 7 F1.

#### SOURCE

CYP2R1 (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CYP2R1 of human origin.

#### **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48987 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

CYP2R1 (T-12) is recommended for detection of CYP2R1 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).

Suitable for use as control antibody for CYP2R1 siRNA (h): sc-60481 and CYP2R1 siRNA (m): sc-60482.

Molecular Weight of CYP2R1: 57 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

# **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.