BACKGROUND

P450 enzymes constitute a family of monooxygenase enzymes that are involved in the metabolism of a wide array of endogenous and xenobiotic compounds. Several P450 enzymes have been classified by sequence similarities as members of the CYP1A and CYP2A subfamilies. NADPH cytochrome P450 reductase is a microsomal enzyme responsible for the transfer of electrons from NADPH to cytochrome P450 enzymes during the P450 catalytic cycle. NADPH cytochrome P450 reductase is localized to the endoplasmic reticulum where it is also able to transfer electrons to heme oxygenase and cytochrome P450. NADPH cytochrome P450 reductase is structurally related to two separate flavoprotein families, ferredoxin nucleotide reductase (FNR) and flavodoxin. Electron transfer of NADPH cytochrome P450 reductase requires the binding of two flavin cofactors, FAD and FMN, to the FNR and flavodoxin domains, respectively.

CHROMOSOMAL LOCATION

Genetic locus: CYP1A1 (human) mapping to 15q24.1; Cyp1a1 (mouse) mapping to 9 B.

SOURCE

CYP1A1 (H-70) is a rabbit polyclonal antibody raised against amino acids 246-315 mapping to an internal region of CYP1A1 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.

APPLICATIONS

CYP1A1 (H-70) is recommended for detection of CYP1A1 of mouse, rat and human 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 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:20-1:2000), immunochemistry (including paraffin-embedded sections) (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 CYP1A1 siRNA (h); sc-41483, CYP1A1 siRNA (m); sc-41484, CYP1A1 shRNA Plasmid (h); sc-41483-SH, CYP1A1 shRNA Plasmid (m); sc-41484-SH, CYP1A1 shRNA (h) Lentiviral Particles: sc-41483-V and CYP1A1 shRNA (m) Lentiviral Particles: sc-41484-V.

Molecular Weight of CYP1A1: 56 KDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or CYP1A1 (h): 293T Lysate: sc-114027.

STORAGE

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

PROTOCOLS

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

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA


SELECT PRODUCT CITATIONS


