CYP1A1 (A-9): sc-393979

**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 also transfers electrons to heme oxygenase and cytochrome b5. NADPH cytochrome P450 reductase is structurally related to flavodoxin. Electron transfer of NADPH cytochrome P450 reductase requires proteins from NADPH to cytochrome P450 enzymes during the P450 catalytic cycle.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

CYP1A1 (A-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 479-506 near the C-terminus of CYP1A1 of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CYP1A1 (A-9) is available conjugated to agarose (sc-393979 AC), 200 µg/ml of cell lysate. It is also available conjugated to agarose (sc-393979 FITC), Alexa Fluor® 488 (sc-393979 AF488), Alexa Fluor® 546 (sc-393979 AF546), Alexa Fluor® 594 (sc-393979 AF594) or Alexa Fluor® 647 (sc-393979 AF647), 200 µg/ml, for WB (RGB), IF, IHC and FCM; and to either Alexa Fluor® 680 (sc-393979 AF680) or Alexa Fluor® 790 (sc-393979 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393979 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

CYP1A (A-9) is recommended for detection of CYP1A1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 CYP1A1 siRNA (h): sc-41483, CYP1A1 siRNA (m): sc-41484, CYP1A1 siRNA (r): sc-270346, CYP1A1 shRNA Plasmid (h): sc-41483-SH, CYP1A1 shRNA Plasmid (m): sc-41484-SH, CYP1A1 shRNA Plasmid (r): sc-270346-SH, CYP1A1 shRNA (h) Lentiviral Particles: sc-41483-V, CYP1A1 shRNA (m) Lentiviral Particles: sc-41484-V and CYP1A1 shRNA (r) Lentiviral Particles: sc-270346-V.

Molecular Weight of CYP1A1: 56 kDa.

**DATA**

CYP1A1 (A-9) is available conjugated to agarose (sc-393979 AC), 200 µg/ml of cell lysate. It is also available conjugated to agarose (sc-393979 FITC), Alexa Fluor® 488 (sc-393979 AF488), Alexa Fluor® 546 (sc-393979 AF546), Alexa Fluor® 594 (sc-393979 AF594) or Alexa Fluor® 647 (sc-393979 AF647), 200 µg/ml, for WB (RGB), IF, IHC and FCM; and to either Alexa Fluor® 680 (sc-393979 AF680) or Alexa Fluor® 790 (sc-393979 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**SELECT PRODUCT CITATIONS**


**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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA