**BACKGROUND**

The cytochrome P450 proteins (CYPs) 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. CYP2A6 is a liver enzyme that metabolizes a number of drugs and a variety of procarcinogens, though it is primarily responsible for the metabolism of nicotine, the major addictive agent in tobacco. CYP2A6 inactivates nicotine to cotinine, and then cotinine to 3-hydroxycotinine. Differences in CYP2A6 genotypes are related to nicotine dependence, and may influence smoking habits and withdrawal symptoms in individuals that are quitting smoking. This suggests that an individualized smoking cessation program may be designed based on CYP2A6 genotypes.

**REFERENCES**


**CHROMOSOMAL LOCATION**


**SOURCE**

CYP2A6 (F16 P2 D8) is a mouse monoclonal antibody raised against synthetic ovalbumin-conjugated CYP2A6 of human 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.

CYP2A6 (F16 P2 D8) is available conjugated to agarose (sc-53615 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53615 HRP), 200 µg/ml, for WB, HCOIP and ELISA; to either phycoerythrin (sc-53615 PE), fluorescein (sc-53615 FITC), Alexa Fluor® 488 (sc-53615 AF488), Alexa Fluor® 546 (sc-53615 AF546), Alexa Fluor® 594 (sc-53615 AF594) or Alexa Fluor® 647 (sc-53615 AF647), 200 µg/ml, for WB (RGB), IF, HCOIP and FCM; and to either Alexa Fluor® 680 (sc-53615 AF680) or Alexa Fluor® 790 (sc-53615 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

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

**APPLICATIONS**

CYP2A6 (F16 P2 D8) is recommended for detection of CYP2A6, CYP2A7, CYP2A13 and CYP2B6 of 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 (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of CYP2A6: 57 kDa.

**DATA**

CYP2A6 (F16 P2 D8): sc-53615. Western blot analysis of human recombinant CYP2A6 fusion protein.

CYP2A6 (F16 P2 D8): sc-53615. Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human liver tissue showing cytoplasmic staining.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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