



# **Product Information Sheet**

# Polyclonal Anti-Cytochrome P450, family 2, subfamily E, polypeptide 1, *P450II E1(CYP2E1)*

Catalogue No. PA1116

Lot No. 08J01

Ig type: rabbit IgG

Size: 100µg/vial

#### Specificity

Human, rat, mouse. No cross reactivity with other proteins.

Recommended application Western blot Immunohistochemistry(P) Immunohistochemistry(F)



# A synthetic peptide mapping at the C-terminal of human P450 II E1,

different from the related mouse sequence by single amino acid.

#### Purity

Immunogen affinity purified.

## Application

Western blot

At 1-2 $\mu$ g/ml with the appropriate system to detect P450 II E1 in cells and tissues.

Immunohistochemistry(P)

At  $1-2\mu g/ml$  to detect P450 II E1 in formalin fixed and paraffin embedded tissues. Boiling the sections is required.

*Immunohistochemistry(F)* 

At 1-2µg/ml to detect P450  $\rm II\,E1$  in formalin or acetone fixed tissues.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

#### Contents

To reorder contact us at:Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mgAntagene, Inc.Thimerosal, 0.05mg NaN3.

## Toll Free: 1(866)964-2589 Reconstitution

email: Info@antageneinc.com 0.2ml of distilled water will yield a concentration of 500µg/ml.

## FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC AND CLINICAL USE.

#### Storage

month. It can also be aliquotted and stored frozen at -20°C for longer time.

At -20°C for one year. After ti reconstitution, at 4°C for one

#### BACKGROUND

P450IIE1, also known as CYP2E1, is a member of the P450IIE subfamily which is ethanol-inducible. It has at least 1 gene which is mapped to 10q24.3-qter, and a second is likely in rat and in man<sup>1</sup>. Both the rat and human proteins encoded by this gene contain 493 amino acids and calculated molecular masses of 56,634 and 56,916 daltons, respectively<sup>2</sup>. In addition, genetic polymorphisms in the 5-prime flanking region of the human P450IIE1 gene affected its binding of transacting factor and changed its transcriptional regulation, which may lead to interindividual differences of microsomal drug oxidation activity<sup>3</sup>. P450IIE1 is an important enzyme for the catalysis of the conversion of ethanol to acetaldehyde and to acetate in humans, and it is also involved in the metabolism of nitrosamines. Due to the possible correlation of P450IIE1 genes with malignancy, clinical studies of RFLP patterns of these genes in cancer may be useful.

#### REFERENCE

1.Nebert, D. W.; Adesnik, M.; Coon, M. J.; Estabrook, R. W.; Gonzalez, F. J.; Guengerich, F. P.; Gunsalus, I. C.; Johnson, E. F.; Kemper, B.; Levin, W.; Phillips, I. R.; Sato, R.; Waterman, M. R. :

The P450 gene superfamily: recommended nomenclature. DNA 6: 1-11, 1987.

2.Song, B.-J.; Gelboin, H. V.; Park, S.-S.; Yang, C. S.; Gonzalez, F. J. : Complementary DNA and protein sequences of ethanol-inducible rat and human cytochrome P-450s: transcriptional and post-transcriptional regulation of the rat enzyme. *J. Biol. Chem.* 261: 16689-16697, 1987.

3.Hayashi, S.; Watanabe, J.; Kawajiri, K. : Genetic polymorphisms in the 5-prime-flanking region change transcriptional regulation of the human cytochrome P450IIE1 gene. *J. Biochem.* 110: 559-565, 1991.