

Summary

Production Name	CYP2D6 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CYP2D6
Alternative Names	CYP2D6; CYP2DL1; Cytochrome P450 2D6; CYP11D6; Cytochrome P450-DB1; Debrisoquine 4-hydroxylase
Gene ID	1565.0
SwissProt ID	P10635.The antiserum was produced against synthesized peptide derived from human Cytochrome P450 2D6. AA range:251-300

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000..
Molecular Weight	55kD

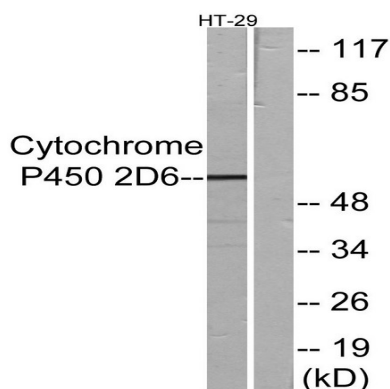
Background

This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and is known to metabolize as many as 25% of commonly prescribed drugs. Its substrates include antidepressants, antipsychotics, analgesics and antitussives, beta adrenergic blocking agents, antiarrhythmics and antiemetics. The gene is highly polymorphic in the human population; certain alleles result in the poor metabolizer phenotype, characterized by a decreased ability to metabolize the enzyme's substrates. Some individuals with the poor metabolizer phenotype have no functional protein since they carry 2 null alleles whereas in other individuals the gene is absent. This gene can vary in catalytic activity: $RH + \text{reduced flavoprotein} + O_2 = ROH + \text{oxidized flavoprotein} + H_2O$. Cofactor: Heme group. Function: Responsible for the metabolism of many drugs and environmental chemicals that it oxidizes. It is involved in the metabolism of drugs such as antiarrhythmics, adrenoceptor antagonists, and tricyclic antidepressants. Induction: By pregnancy. Online information: CYP2D6 alleles, online information: CYP2D6 entry, polymorphism: Allele CYP2D6*7 was also known as CYP2D6E, allele CYP2D6*9 as CYP2D6C, allele CYP2D6*10 as CYP2D6J, allele CYP2D6*17 as CYP2D6Z. Polymorphism: Genetic variations in CYP2D6 are the cause of poor drug metabolism CYP2D6-related [MIM:608902]. The CYP2D6 gene is highly polymorphic. CYP2D6 activity ranges widely within a population comprising ultrarapid (UM), extensive (EM), intermediate (IM) and poor (PM) metabolizer phenotypes. UM and PM are those most at risk for treatment failure or dose-dependent drug toxicity, respectively. Of the Caucasian populations of Europe and North America, 5%-10% are of the PM phenotype and are unable to metabolize the antihypertensive drug debrisoquine and numerous other drugs. Polymorphism: Isozymes CYP2D6.45 (Lys-155, Cys-296 and Thr-486) and CYP2D6.46 (His-26, Lys-155, Cys-296 and Thr-486) are functional. Similarity: Belongs to the cytochrome P450 family.

Research Area

Drug metabolism;

Image Data

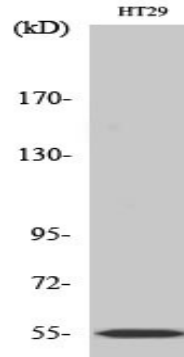


Western blot analysis of lysates from HT-29 cells, using Cytochrome P450 2D6 Antibody. The lane on the right is blocked

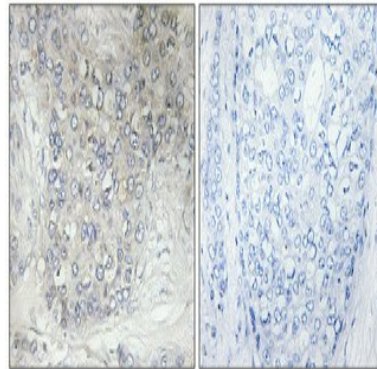
Product Name: CYP2D6 Rabbit Polyclonal Antibody
Catalog #: APRab09656



with the synthesized peptide.



Western Blot analysis of various cells using CYP2D6 Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100 (4°, overnight) .

High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.

Note

For research use only.