

Product name:	CYP2D6 Rabbit Polyclonal Antibody
Cat number:	ABN09656
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human Cytochrome P450 2D6. AA range:251-300
Reactivity:	Human
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:20000
Molecular Weight:	55kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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 incatalytic activity: $RH + \text{reduced flavoprotein} + O(2) = ROH + \text{oxidized flavoprotein} + H(2)O$.,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 antihypersensitive 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.,