

Product name:	CYP1B1 Rabbit Polyclonal Antibody
Cat number:	ABN09632
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from the Internal region of human CYP1B1.
Reactivity:	Human,Rat,Mouse
Applications:	WB 1:500-1:2000,ELISA 1:20000-1:40000
Molecular Weight:	60kDa
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. The enzyme encoded by this gene localizes to the endoplasmic reticulum and metabolizes procarcinogens such as polycyclic aromatic hydrocarbons and 17beta-estradiol. Mutations in this gene have been associated with primary congenital glaucoma; therefore it is thought that the enzyme also metabolizes a signaling molecule involved in eye development, possibly a steroid. [provided by RefSeq, Jul 2008], catalytic activity: $\text{RH} + \text{reduced flavoprotein} + \text{O}_2 = \text{ROH} + \text{oxidized flavoprotein} + \text{H}_2\text{O}$, cofactor: Heme group., disease: Defects in CYP1B1 are a cause of Peters anomaly [MIM:604229]. Peters anomaly is a congenital defect of the anterior chamber of the eye., disease: Defects in CYP1B1 are a cause of primary open angle glaucoma (POAG) [MIM:137760]. POAG is a complex and genetically heterogeneous ocular disorder characterized by a specific pattern of optic nerve and visual field defects. The angle of the anterior chamber of the eye is open, and usually the intraocular pressure is increased. The disease is asymptomatic until the late stages, by which time significant and irreversible optic nerve damage has already taken place. In some cases, POAG shows digenic inheritance involving mutations in CYP1B1 and MYOC genes., disease: Defects in CYP1B1 are the cause of primary congenital glaucoma type 3A (GLC3A) [MIM:231300]. GLC3A is an autosomal recessive form of primary congenital glaucoma (PCG). PCG is characterized by marked increase of intraocular pressure at birth or early childhood, large ocular globes (buphthalmos) and corneal edema. It results from developmental defects of the trabecular meshwork and anterior chamber angle of the eye that prevent adequate drainage of aqueous humor., function: Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics., function: Participates in the metabolism of an as-yet-unknown biologically active molecule that is a participant in eye development., induction: By polycyclic aromatic hydrocarbons (PAH) and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)., online information: CYP1B1 alleles, polymorphism: Various CYP1B1 alleles are known. The sequence shown is that of allele CYP1B1*1., similarity: Belongs to the cytochrome P450 family., tissue specificity: Expressed in many tissues.,