

# Anti-Cytochrome P450 2D6 Antibody

Catalog # AP51916

## Product Information

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC                |
| Primary Accession | <a href="#">P10635</a> |
| Reactivity        | Human, Mouse, Rat, Mk  |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Calculated MW     | 55769                  |

## Additional Information

|                    |                                                                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID            | 1565                                                                                                                                               |
| Other Names        | CYP2DL1; Cytochrome P450 2D6; CYP1ID6; Cytochrome P450-DB1; Debrisoquine 4-hydroxylase                                                             |
| Target/Specificity | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 2D6. The exact sequence is proprietary. |
| Dilution           | WB~~WB (1/500 - 1/1000) IHC~~1:100~500                                                                                                             |
| Format             | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.                                          |
| Storage            | Store at -20 °C.Stable for 12 months from date of receipt                                                                                          |

## Protein Information

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| Name     | CYP2D6 {ECO:0000303 PubMed:21289075, ECO:0000312 HGNC:HGNC:2625}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Function | <p>A cytochrome P450 monooxygenase involved in the metabolism of fatty acids, steroids and retinoids (PubMed:<a href="#">18698000</a>, PubMed:<a href="#">19965576</a>, PubMed:<a href="#">20972997</a>, PubMed:<a href="#">21289075</a>, PubMed:<a href="#">21576599</a>). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase) (PubMed:<a href="#">18698000</a>, PubMed:<a href="#">19965576</a>, PubMed:<a href="#">20972997</a>, PubMed:<a href="#">21289075</a>, PubMed:<a href="#">21576599</a>). Catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA) (PubMed:<a href="#">19965576</a>, PubMed:<a href="#">20972997</a>). Metabolizes endocannabinoid arachidonylethanolamide (anandamide) to 20-hydroxyeicosatetraenoic acid ethanolamide (20-HETE-EA) and 8,9-, 11,12-, and 14,15-epoxyeicosatrienoic acid ethanolamides (EpETrE-EAs), potentially modulating endocannabinoid system signaling (PubMed:<a href="#">18698000</a>, PubMed:<a href="#">21289075</a>). Catalyzes the hydroxylation of</p> |

carbon-hydrogen bonds. Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis (PubMed:[21576599](#)). Catalyzes the oxidative transformations of all-trans retinol to all-trans retinal, a precursor for the active form all-trans-retinoic acid (PubMed:[10681376](#)). Also involved in the oxidative metabolism of drugs such as antiarrhythmics, adrenoceptor antagonists, and tricyclic antidepressants.

#### Cellular Location

Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

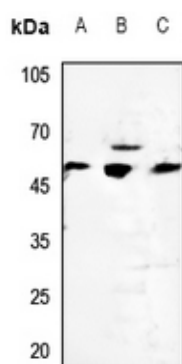
## References

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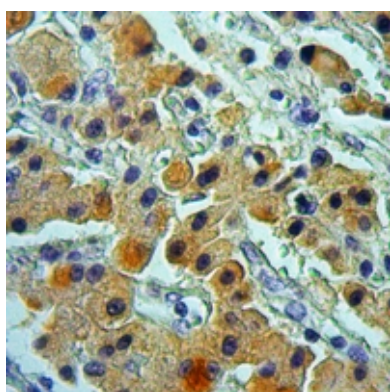
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Kimura S.,et al.Am. J. Hum. Genet. 45:889-904(1989).  
Gaedigk A.,et al.Pharmacogenomics J. 5:173-182(2005).  
Gaedigk A.,et al.Pharmacogenomics J. 5:276-276(2005).

## Images

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Western blot analysis of Cytochrome P450 2D6 expression in mouse spleen (A), rat liver (B), rat spleen (C) whole cell lysates. (Predicted band size: 55 kD; Observed band size: 55 kD)



Immunohistochemical analysis of Cytochrome P450 2D6 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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