

Cytochrome P450 Polyclonal Antibody

Product Specifications

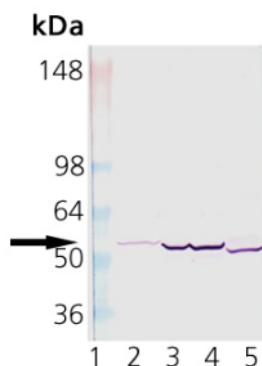
Catalog Number:	MFO-100
Host:	Rabbit
Species Reactivity:	Human, rat, mouse, canine, monkey, guinea pig, rabbit, and horse
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB⁵: 1:1000 (Colorimetric)
Predicted m.w:	~50-55 kDa
Concentration:	See product label
Purification:	Protein A Affinity
Format:	PBS, pH 7.2, 50% glycerol, 0.09% azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Native rat Cytochrome p450 protein ⁶
Related Products:	
NEW! LYT-HM100	Human Liver Microsome Extract
NEW! LYT-MM100	Mouse Liver Microsome Extract
NEW! LYT-RM100	Rat Liver Microsome Extract
SAB-301	Goat anti-Rabbit IgG Polyclonal Antibody, AP
OSA-300	Cytochrome P450 Reductase Polyclonal Antibody
OSP-300	Cytochrome P450 Reductase Native Protein

Background:

Ethanol-inducible cytochrome P450 IIE1 (CYP2E1) represents a major cause of oxidative stress in the liver following ethanol treatment. Radicals produced by this enzyme induce lipid peroxidation reactions and otherwise damage cells, representing a major cause of ethanol-dependent liver toxicity¹. The importance of CYP2E1 lies in its ability to metabolize organic solvents, acetaminophen, dimethylnitrosamine, aliphatic alcohols, and other compounds with relevant toxicological effects in humans. To date, researchers have identified over 75 substrates of CYP2E1². CYP2E1 is found mainly in the liver, but also appears in other organs, including the brain, colon and lungs. Localized to the centrilobular region in the liver, it specifically inhabits the hepatocyte layers most proximal to the central vein¹. Cytochrome P450 is considered part of the mixed function oxidase (MFO) system, along with NADPH-cytochrome P450 reductase³. The antibody inhibits microsomal benzene metabolism⁴.

References:

1. Ingelman-Sundberg, M., *et al.* (1993) *Alcohol* **10**, 447-452.
2. Hu, Y., *et al.* (1994) *J Pharm Exp Therap.* **269**, 1286-1291.
3. Bergh, A.F. and Strobel, H.W. (1992) *J Neurochem.* **59**, 575-581.
4. Johansson, I. and Ingelman-Sundberg, M. (1988) *Cancer Res* **48**, 5387-5390.
5. Bardag-Gorce, F., *et al.* (2002) *Free Radic Biol Med.* **32**, 17-21.
6. Johansson, I., *et al.* (1988) *Biochemistry* **27**, 1925-1934.



Western Blot Analysis of Cytochrome P450:

Lane 1: MWM, Lane 2: Human Liver microsomes, Lane 3: Rat Liver Microsomes, Lane 4: Mouse Liver Microsomes, Lane 5: Rabbit Liver Microsomes

Assay Designs makes every effort to provide a consistent source of high quality polyclonal antibodies. However, due to variations inherent in this technology, investigators are urged to purchase sufficient quantities of a specific lot number if an identical antibody is required throughout a study.

FOR RESEARCH USE ONLY; NOT FOR THERAPEUTIC OR DIAGNOSTIC USE

5777 Hines Drive • Ann Arbor, MI • 48108 | Tel: 800-833-8651 or 800-668-6113 | Fax: 734-668-2793
www.assaydesigns.com | orders@assaydesigns.com | technical@assaydesigns.com