

Cytochrome P450 1A2 polyclonal antibody

Catalog: BS67626

Host: Rabbit

Reactivity: Human, Mouse, Rat

BackGround:

A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids, steroid hormones and vitamins. 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).

Catalyzes the hydroxylation of carbon-hydrogen bonds. Exhibits high catalytic activity for the formation of hydroxyestrogens from estrone (E1) and 17 β -estradiol (E2), namely 2-hydroxy E1 and E2.

Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis. May act as a major enzyme for all-trans retinoic acid biosynthesis in the liver. Catalyzes two successive oxidative transformation of all-trans retinol to all-trans retinal and then to the active form all-trans retinoic acid. Primarily catalyzes stereoselective epoxidation of the last double bond of polyunsaturated fatty acids (PUFA), displaying a strong preference for the (R,S) stereoisomer. Catalyzes bisallylic hydroxylation and omega-1 hydroxylation of PUFA. May also participate in eicosanoids metabolism by converting hydroperoxide species into oxo metabolites (lipoxygenase-like reaction, NADPH-independent). Plays a role in the oxidative metabolism of xenobiotics. Catalyzes the N-hydroxylation of heterocyclic amines and the O-deethylation of phenacetin. Metabolizes caffeine via N3-demethylation (Probable).

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 60 kDa

Swiss-Prot:

P05177

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200)

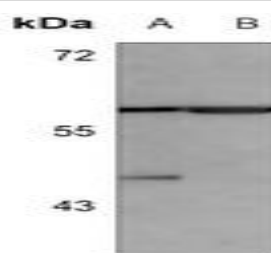
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

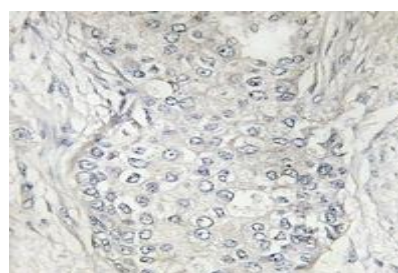
Specificity:

Recognizes endogenous levels of Cytochrome P450 1A2 protein.

DATA:



Western blot analysis of Cytochrome P450 1A2 expression in mouse liver (A), rat liver (B) whole cell lysates.



Immunohistochemical analysis of Cytochrome P450 1A2 staining in human breast 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.

Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416, USA.

Email: info@bioworld.com

Tel: 6123263284

Fax: 6122933841

Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

Email: info@biogot.com

Tel: 0086-025-68037686

Fax: 0086-025-68035151



PRODUCT DATA SHEET

Bioworld Technology, Inc.

Note:

For research use only, not for use in diagnostic procedure.

Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park,
MN 55416, USA.

Email: info@bioworld.com

Tel: 6123263284

Fax: 6122933841

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Add: No 9, weidi road Qixia District Nanjing, 210046,
P. R. China.

Email: info@biogot.com

Tel: 0086-025-68037686

Fax: 0086-025-68035151