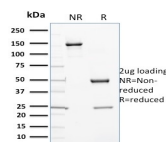


Cytochrome P450 3A1 / CYP3A1 Monoclonal Mouse Antibody (P6)



Product Description

Cytochrome P450 oxidase (commonly abbreviated CYP) is a generic term for a large number of related, but distinct, oxidative enzymes important in vertebrate physiology. The cytochrome P450 mixed-function monooxygenase system is probably the most important element of Phase I metabolism in mammals. P450s are membrane-bound, either in the inner membrane of mitochondria or in the endoplasmic reticulum of cells where they metabolise thousands of endogenous and exogenous compounds. In the liver, these substrates include toxins, drugs, and other unneeded and potentially harmful molecules. Humans have 18 families of cytochrome P450 genes and 43 subfamilies; the CYP1 family is involved in drug metabolism and includes 3 subfamilies, 3 genes and 1 pseudogene. The CYP2 family are part of the microsomal drug metabolising system that is responsible for oxidation of many therapeutic agents as well as steroids, fatty acids and many other endogenous substances. Cytochrome P450 3A4 is abundantly expressed in liver and small intestine and is inducible by barbiturates, glucocorticoids and rifampicin. P6 is highly specific for members of the CYP 3A gene family and cross reacts with CY 3A4 in human, CYP 3A in rat and potentially CYP 3A11 (based on inducibility) in mice.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 3058, Anti-CYP3A1|Cytochrome P450 3A1 (P6)

Product attributes

Antibody number	#3058
Antibody reactivity (target)	CYP3A1, Cytochrome P450 3A1
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	P6
Isotype	IgG1, kappa
Molecular weight	51 kDa
Synonyms	CYP3A1; Cytochrome P450 family 3 subfamily A polypeptide 1
Human gene symbol	CYP3A1
Entrez gene ID	Not Known
SwissProt	Not Known
Unigene	Not Known
Immunogen	Full length protein (Rat). Rat liver cytochrome P450 3A1.
Antibody target cellular localization	Endoplasmic reticulum
Species reactivity	Human, Mouse, Pig, Rat
Expected antibody applications	ELISA (published for clone), WB (published for clone)
Antibody application notes	ELISA: For coating, order antibody without BSA; Flow cytometry: 0.5-1 ug/million cells; Western blot 0.5-1.0 ug/mL; Optimal dilution for a specific application should be determined., Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody
Positive control	HeLa cells. Liver or Cardiac muscle.
Shipping condition	Room temperature
Storage Conditions	Note: store BSA-free antibodies at -10 to -35 °C, Store at 2 to 8 °C, Protect fluorescent conjugates from light
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. Eur J Biochem (1993) 213: 805-814. (cell ELISA)
2. Toxicol in Vitro (1994) 8(3): 423-35. (ELISA)
3. Drug Metab Disp (2001) 29(3) Pt 2: 353-360. (WB)

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