

MONOCLONAL ANTIBODY DATASHEET



Clone F24 P2 B10 against human CYP3A4

Product Description	Monoclonal antibody directed against human CYP3A4, with some cross-reactivity against CYP3A5 (see below). Supplied as hybridoma supernatant (unpurified).
Storage	Store at -20°C . Avoid repeated freeze-thaw cycles.
Intended Use	For laboratory (research) purposes only.
Isotype	IgG1, k
Clone	F24 P2 B10
Immunogen	Ovalbumin-conjugated synthetic peptide; ESRDGTVSGA (amino-acids 494-503 of CYP3A4).
B Cell Donor	BALB-c mouse
Fusion Partner	Ag 8563
Positive Control	IHC: formalin-fixed, paraffin-embedded prostate cancer sections. Western blot: recombinant CYP (shown below @ 0.5 pmol per lane). Negative control: Gentest Cat. No.: M101b.

Applications		Recommended Usage Conditions (conditions should be optimised by the user)
ELISA	✓	Undiluted (titre: 1/1000)
Western blot	✓	1/10 dilution
IHC	✓	1/5 dilution, antigen retrieval: microwave 20 min @ 800W in 10 mM citrate buffer, pH 6.0

Clinical significance	Results observed
Colorectal cancer	- CYP3A4 generally showed the highest intensity of immunoreactivity in normal colon out of all the CYPs tested. CYP3A4 immunostaining was higher in normal colon than in colon cancer samples. There was a correlation between the amount of CYP3A4 expressed and the tumour stage. The consequence of CYP3A4 overexpression in distinct tumour microenvironments (hypoxia) is currently being exploited by P450-targeted therapy.
Ovarian cancer	- CYP3A4 showed the highest intensity of immunoreactivity in normal ovary out of all the CYPs tested, and was expressed by stromal cells in the ovary.
Breast cancer	- Absent/low CYP3A4 expression was associated with better patient survival. Absent/low CYP3A4 expression was also associated with better survival for patients who had received adjuvant tamoxifen. That study found that expression of CYP3A4 was significantly associated with lymph node metastasis.

References	Kumarakulasingham M, Rooney PH, Dundas SR, Telfer C, Melvin WT, Curran S, Murray GI (2005). Cytochrome p450 profile of colorectal cancer: identification of markers of prognosis. <i>Clin Cancer Res.</i> 11 : 3758-3765.
	Downie D, McFadyen MCE, Rooney PH, Cruickshank ME, Parkin DE, Miller ID, Telfer C, Melvin WT, Murray GI (2005) Profiling Cytochrome P450 Expression in Ovarian Cancer: Identification of Prognostic Markers. <i>Clin Cancer Res.</i> 11 : 7369-7375.
	Murray G I, Patimalla S, Stewart K N, Miller I D & Heys S D (2010) Profiling the expression of cytochrome P450 in breast cancer. <i>Histopathology.</i> 57 : 202-211.

ELISA TEST						
3A4	2B6	2R1	2U1	4F11	26A1	2A(6/7/13)
+	-	-	-	-	-	-
Reactivity with BSA-conjugated synthetic C-terminus region derived from CYP proteins						

WESTERN BLOT OF RECOMBINANT CYP450s				IMMUNOHISTOCHEMISTRY											
<p>MW (kDa)</p> <p>180 →</p> <p>116 →</p> <p>97 →</p> <p>58.1 →</p> <p>39.8 →</p>	1	2	3	4	<p>MW (kDa)</p> <p>180 →</p> <p>116 →</p> <p>97 →</p> <p>58.1 →</p> <p>39.8 →</p>	1	2	3	4	5	6	7	8	9	10
1. markers		3.CYP3A5		4.CYP3A4		1. markers		4. CYP2E1		7. CYP2C19		10. negative control			
2. CYP3A7		4.CYP3A4		3. CYP1B1		5. CYP2A1		6. CYP2C18		8. CYP2D6		9. CYP4F3			
Antibody staining of prostate cancer tissue															