

MONOCLONAL ANTIBODY DATASHEET



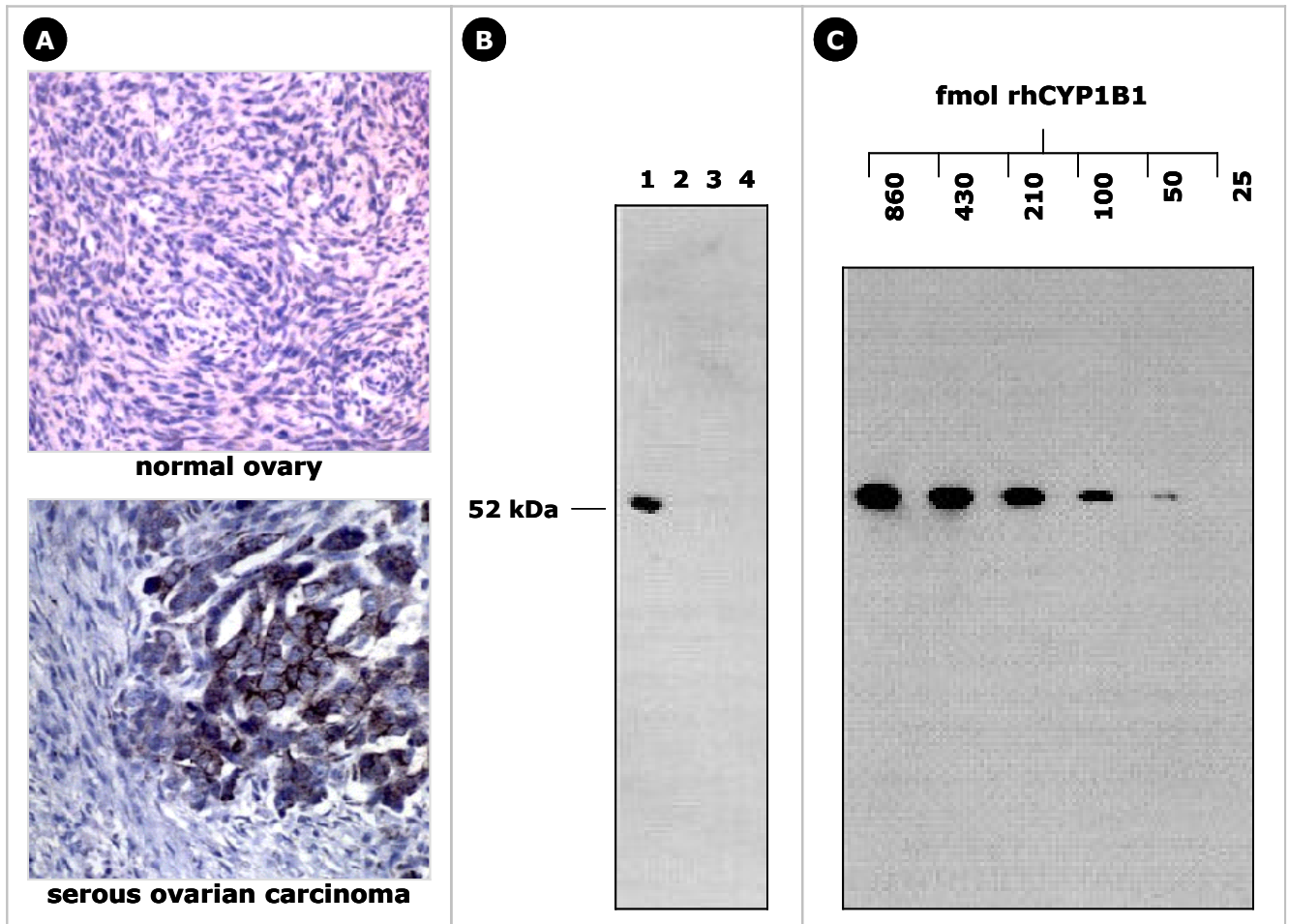
Clone 5D3 against human CYP1B1

Product Description	Monoclonal antibody directed against human CYP1B1. Not reactive with CYP1A1. Supplied as hybridoma supernatant (unpurified).
Storage	Store at -20°C . Avoid repeated freeze-thaw cycles.
Intended Use	For laboratory (research) purposes only.
Isotype	IgG1, κ
Clone	5D3
Immunogen	Ovalbumin-conjugated synthetic peptide; PENFDPARFLDKDGL (amino-acids 437-451)
B Cell Donor	BALB-c mouse
Fusion Partner	Ag 8563
Positive Control	IHC: formalin-fixed, paraffin-embedded ovarian cancer sections. Western Blot: rhCYP1B1 from lymphoblastoid cells; 10 μg microsomal protein/lane.

Applications		Recommended Usage Conditions (conditions should be optimised by the user)
ELISA	not tested	n/a
Western blot	✓	1/10 – 1/100 dilution
IHC	✓	1/5 dilution, antigen retrieval: microwave 20 min @ 800W in 10 mM citrate buffer, pH 6

Tissues tested for CYP1B1 expression using MAb 5D3	Staining Pattern	Ref No.
Human breast tumour (invasive ductal carcinoma)	+ve in 40/52 tumours	1
Human breast tumour (invasive lobular carcinoma)	+ve in 6/8 tumours	1
Normal human ovary	Not detected	2, 3
Human primary ovarian tumour (mixed types)	+ve in 153/167	2, 3
Stomach carcinoma (and normal tissue control)	+ve in tumour, -ve in control	3
Squamous oesophageal carcinoma (+ normal tissue control)	+ve in tumour, -ve in control	3
Rhabdomyosarcoma (and normal tissue control)	+ve in tumour, -ve in control	3
Microsomal preparations from panel of normal tissues, tumours and cancer cell lines, examined by Western blotting	Antigen over-expressed in tumours and cell lines.	4
Prostate and bladder (tumour, normal); MaxArray human normal tissue microarray (Zymed Laboratory Inc.)	+ve in 75% prostate and 100% bladder tumours, -ve in normals	5

References	
1	McFadyen, MCE, Breeman, S, Payne, S, <i>et al</i> (1999) Immunohistochemical localization of Cytochrome P450 CYP1B1 in Breast Cancer with Monoclonal Antibodies Specific for CYP1B1. <i>The Journal of Histochemistry and Cytochemistry</i> 47 (11):1457-1464
2	McFadyen MCE, Cruickshank ME, Miller ID, <i>et al</i> (2001) Cytochrome P450 CYP1B1 over-expression in primary and metastatic ovarian cancer. <i>British Journal Of Cancer</i> 85 : 242-246.
3	Murray GI, Melvin WT, Greenlee WF, Burke MD. (2001) Regulation, function, and tissue-specific expression of cytochrome P450 CYP1B1. <i>Ann Rev Pharmacol Toxicol</i> 41 : 297-316.
4	Maecker B, Sherr DH, Vonderheide RH <i>et al</i> (2003) The shared tumor-associated antigen cytochrome P450 1B1 is recognized by specific cytotoxic T cells. <i>Blood</i> 102 : 3287-94.
5	Carnell DM, Smith RE, Daley FM <i>et al</i> (2004) Target validation of cytochrome P450 CYP1B1 in prostate carcinoma with protein expression in associated hyperplastic and premalignant tissue. <i>Int. J. Radiation Oncology Biol. Phys.</i> 58 : 500-509.



A: IHC with MAb 5D3: staining of formalin-fixed, paraffin-embedded human tissue sections

B: immunoblotting with 5D3 antibody:

Lane 1: microsomes from human lymphoblastoid cells expressing rhCYP1B1

Lane 2: microsomes from human lymphoblastoid cells expressing rhCYP1A1

Lane 3: expression vector control

Lane 4: normal human liver microsomes (10 μ g microsomal protein / lane, all from Gentest Corp)

C: determining limit of detection in immunoblotting with MAb 5D3, using Gentest rhCYP1B1 microsomes