P-glycoprotein (human) monoclonal antibody (C494)

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ALX-801-003-C100	1ml

Manuals, SDS & CofA View Online »

Handling & Storage

Handling	After opening, prepare aliquots and store at -70°C. Avoid freeze/thaw cycles.
Short Term Storage	+4°C
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	ABCB1, CD243, P-glycoprotein 1
Application	Flow Cytometry, ICC, IHC (FS), IHC (PS), IP, WB
Application Notes	Flow Cytometry: cell permeabilization required. Immunocytochemistry: Cytospin preparations. Immunoprecipitation: The C494 MAb can be used to immunoprecipitate P-glycoprotein from lysates of metabolically or surface radiolabelled cells.
Clone	C494
Crossreactivity	Cross-reacts with pyruvate carboxylase (PC), an abundant mitochondrial enzyme. Unequivocal plasma membrane patterns of immunostaining represent true P-glycoprotein expression. Weak homogeneous, cytoplasmic or granular patterns of reactivity may represent staining of the PC cross-reactive epitope rather than positive staining for P-glycoprotein. Does not cross-react with human MDR3 P-glycoprotein.
Formulation	Liquid. In PBS containing BSA and 0.09% sodium azide.
Host	Mouse
Immunogen	SDS-solubilized plasma membranes of an MDR (multidrug resistant) Chinese hamster ovary cell line and a human leukemic cell line.
Isotype	IgG2a

Positive Control	Cell lines: Appropriate drug-sensitive parental cell lines and their multidrug resistant derivatives prepared by the same methods as the test specimen can be used as control materials.Tissue: Human liver (positive staining detected along luminal surfaces of bile canaliculi) or human colon (positive staining localized to luminal surface of secretory epithelium) are recommended.
Recommendation Dilutions/Conditions	Flow cytometry:Tissue culture cell lines, blood or bone marrow may be used. Specimens should be fixed in 3.7% formaldehyde for 10 minutes at room temperature to permeabilize the cell membrane. Incubation with approximately 5-10µg of antibody per 1×106 cells for 30-60 minutes at 4°C is suggested. Secondary antibodies (such as FITC-labelled anti-mouse IgG antibodies) available from commercial suppliers may be used for the subsequent steps, but should be titered in order to optimize the particular protocol in use.Immunohistochemistry (frozen sections, paraffin sections):Adherent cells grown on coverslips or glass slides, cytospin preparations, frozen sections or paraffin-embedded materials may be used. Permeabilization of the cell membrane is a pre-requisite for exposing the epitope recognized by C494.Frozen sections of cytospin should be air-dried and fixed in acetone for 10 minutes at -20°C.Paraffin sections should be deparaffinized and rehydrated by conventional means. Secondary antibodies and fluorescent or histochemical detection systems available from other suppliers should be titered for optimal staining. Primary antibody may be diluted to >1:20 for biotin based detection systems. For optimal staining the primary antibody shold be incubated 20-60 minutes at room temperature.Western Blot:Protein concentration of specimens used should be in the range of 50-150µg per 50µl. There are many commercially available systems which may be used for direct Western blot. The MAb antibody should be used at a concentration of 1-10µl/ml in indirect Western blots. Exact concentration of antibody and incubation time will vary depending on the particular system used.Optimal conditions must be determined individually for each application.
Species Reactivity	Human
Specificity	Recognizes a gene-specific, internal cellular epitope present only on the human MDR1 isoform of P-glycoprotein.
UniProt ID	P08183

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