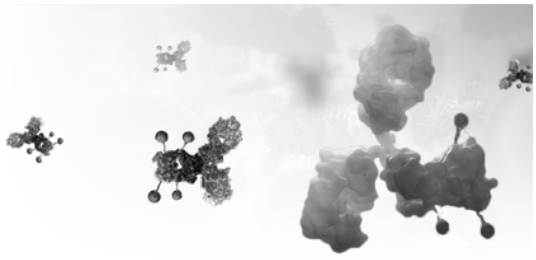

# Anti-ABCB1 monoclonal antibody, clone UIC2 (CABT-47395MH)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

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| **Product Overview** | Mouse anti Human CD243, clone UIC2 recognizes an extracellular conformational epitope of CD243, also known as MDR1 (multi-drug resistance protein 1) and Pgp (P-glycoprotein), a multi pass transmembrane protein and member of the ABC transporter (ATP-binding cassette) family, containing two ABC transporter type 1 domains and two ABC transporter domains. CD243 acts as an active efflux pump for a diverse range of lipophillic compounds. CD243 is expressed at low levels in the cell membrane of peripheral blood leucocytes, and constitutively expressed on the apical plasma membrane of excretory epithelial cells of the kidney, liver, brain and small intestine. CD243 mediates resistance to many chemotherapeutic agents used for tumour suppression and is therefore of special interest to oncologists. Clone UIC2 is a strong inhibitor of CD243-mediated efflux and of the resistance of MDR cells to CD243 transported cytotoxic drugs. Clone UIC2 can be used in a shift assay to selectively demonstrate the expression and functional activity of CD243 in a target cell. Clone UIC2 does not cross-react with mitochondrial pyruvate carboxylase. Exposure of monocytes, which do not constitutively express CD243 leads to an increase in surface expression and a significant enhancement of its substrate efflux activity. This increase in cell surface expression and efflux activity has implications for the drug resistance actions of CD243, not allowing concentrations of therapeutic agents such as cyclosporine (ritonavir) to reach beneficial levels in cells. Flow Cytometry Use 10ul of the suggested working dilution to label 1x106 cells in 100ul. |
| **Specificity** | ABCB1 |
| **Immunogen** | Mouse Balb/c 3T3 fibroblasts transfected with human CD243 cDNA. |
| **Isotype** | IgG2a |
| **Source/Host** | Mouse |
| **Species Reactivity** | Human, Primates |
| **Clone** | UIC2 |

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|---|---|
| **Conjugate** | Unconjugated |
| **Applications** | IHC-Fr; FC; IF; IP; IHC-P |
| **Format** | Purified IgG - liquid |
| **Size** | 100 µg |
| **Preservative** | See individual product datasheet |
| **Storage** | in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |

# GENE INFORMATION

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| **Gene Name** | ABCB1 ATP-binding cassette, sub-family B (MDR/TAP), member 1 [ Homo sapiens (human) ] |
| **Official Symbol** | ABCB1 |
| **Synonyms** | ABCB1; ATP-binding cassette, sub-family B (MDR/TAP), member 1; CLCS; MDR1; P-GP; PGY1; ABC20; CD243; GP170; multidrug resistance protein 1; P-glycoprotein 1; colchicin sensitivity; doxorubicin resistance; |
| **Entrez Gene ID** | 5243 |
| **Protein Refseq** | NP_000918 |
| **UniProt ID** | P08183 |
| **Chromosome Location** | 7q21.12 |
| **Pathway** | ABC transporters; ABC-family proteins mediated transport; Abacavir transmembrane transport; Abacavir transport and metabolism; Bile secretion; Codeine and morphine metabolism; Drug Induction of Bile Acid Pathway; HIF-1-alpha transcription factor network; |
| **Function** | ATP binding; ATPase activity, coupled to transmembrane movement of substances; protein binding; transporter activity; xenobiotic-transporting ATPase activity; |

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