**MDR1 (UIC2): sc-73354**

**BACKGROUND**

Cells selected for resistance to a single cytotoxic drug may become cross-resistant to a broad range of drugs with different structures and cellular targets. This phenomenon is called multiple drug resistance (MDR). MDR proteins (Mdr) are members of a highly conserved superfamily of ATP-binding cassette transport proteins. MDR1 is an apical transmembrane protein that is an integral part of the blood-brain barrier and functions as a drug-transport pump transporting a variety of drugs from the brain back into the blood. The MDR1 gene is also known as ABCB1 and is located on human chromosome 7. The mouse homolog of MDR1 is known as Mdr3. Interestingly, a murine protein by the name of Mdr-1 exists and is encoded by the murine Abcb1b gene, but it is not homologous with human Mdr1.

**CHROMOSOMAL LOCATION**

Genetic locus: ABCB1 (human) mapping to 7q21.12.

**SOURCE**

MDR1 (UIC2) is a mouse monoclonal antibody raised against MDR1 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG₂κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for inhibition of P-glycoprotein efflux activity in functional experiments, sc-73354 L, 200 μg/0.1 ml.

MDR1 (UIC2) is available conjugated to either phycoerythrin (sc-73354 PE) or fluorescein (sc-73354 FITC), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM.

**APPLICATIONS**

MDR1 (UIC2) is recommended for detection of MDR1 P-glycoprotein of human origin by immunoprecipitation (1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μg per 1 x 10⁶ cells); non-cross-reactive with mouse and rat tissues.

Suitable for use as control antibody for MDR1 shRNA Plasmid (h): sc-29395, MDR1 shRNA Plasmid (h): sc-29395-SH and MDR1 shRNA (h) Lentiviral Particles: sc-29395-V.

Molecular Weight of MDR1: 170 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**STORAGE**

Store at 4° C, “DO NOT FREEZE”. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

See MDR1 (D-11): sc-55510 for MDR1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.