**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 (MDRs) are members of a highly conserved superfamily of ATP-binding cassette transport proteins. Mdr-1 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 Mdr-1 gene is known as ABCB1 and is located on human chromosome 7. The mouse homolog of Mdr-1 is known as Mdr-3. 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 Mdr-1.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

Mdr-1 (UIC2) is a mouse monoclonal antibody raised against Mdr-1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a 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.

Mdr-1 (UIC2) is available conjugated to either phycoerythrin (sc-73354 PE) or fluorescein (sc-73354 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

**APPLICATIONS**

Mdr-1 (UIC2) is recommended for detection of Mdr-1 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 10^6 cells); non cross-reactive with mouse and rat tissues.

Suitable for use as control antibody for Mdr-1 siRNA (h): sc-29395, Mdr-1 shRNA Plasmid (h): sc-29395-SH and Mdr-1 shRNA (h) Lentiviral Particles: sc-29395-V.

Molecular Weight of Mdr-1: 170 kDa.

**SELECT PRODUCT CITATIONS**


See Mdr-1 (D-11): sc-55510 for Mdr-1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.