**Mdr-1 (D-11): sc-55510**

**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.

**CHROMOSOMAL LOCATION**
Genetic locus: ABCB1 (human) mapping to 7q21.12; Abcb1b (mouse) mapping to 5A1.

**SOURCE**
Mdr-1 (D-11) is a mouse monoclonal antibody raised against amino acids 1040-1280 of Mdr-1 of human origin.

**PRODUCT**
Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin. Mdr-1 (D-11) is available conjugated to agarose (sc-55510 A C), 500 µg/<0.1% sodium azide and 0.1% gelatin. Mdr-1 (D-11) is recommended for detection of Mdr-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1,000), 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with Mdr-3. Suitable for use as control antibody for Mdr-1 siRNA (h): sc-29395, Mdr-1 siRNA (m): sc-35891, Mdr-1 shRNA Plasmid (h): sc-29395-SH, Mdr-1 shRNA Plasmid (m): sc-35891-SH, Mdr-1 shRNA (h) Lentiviral Particles: sc-29395-V and Mdr-1 shRNA (m) Lentiviral Particles: sc-35891-V. Molecular Weight of Mdr-1: 170 kDa.

**APPLICATIONS**
Mdr-1 (D-11) is recommended for detection of Mdr-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1,000), 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with Mdr-3. Suitable for use as control antibody for Mdr-1 siRNA (h): sc-29395, Mdr-1 siRNA (m): sc-35891, Mdr-1 shRNA Plasmid (h): sc-29395-SH, Mdr-1 shRNA Plasmid (m): sc-35891-SH, Mdr-1 shRNA (h) Lentiviral Particles: sc-29395-V and Mdr-1 shRNA (m) Lentiviral Particles: sc-35891-V. Molecular Weight of Mdr-1: 170 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284, c4 whole cell lysate: sc-364186 or KNKR whole cell lysate: sc-2214.

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

**DATA**

**SELECT PRODUCT CITATIONS**

**RESEARCH USE**
For research use only, not for use in diagnostic procedures.