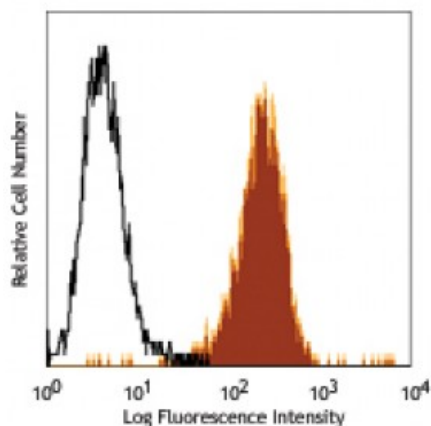


Purified anti-human CD243 (MDR-1)

Catalog # / Size: 2343010 / 100 µg
Clone: UIC2
Isotype: Mouse IgG2a, κ
Immunogen: NIH 3T3 cells transfected with human MDR-1 cDNA
Reactivity: Human
Preparation: The antibody was purified by affinity chromatography.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration: 0.5



Human neuroblastoma cell line SK-N-FI stained with purified UIC2 conjugated with PE

Applications:

Applications: Other

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.5 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for the relevant formats) include: blocking the efflux of fluorescent dyes^{1,2}, immunoprecipitation¹, and immunohistochemical staining of tissue sections of squamous cell carcinoma³.

Application References:

1. Mechetner EB and Roninson IB. 1992. *Proc. Natl. Acad. Sci. USA* 13:5824. (Block, IP)
2. Chaudhary PM, *et al.* 1992. *Blood* 80:2735. (Block)
3. Kelley DJ, *et al.* 1993. *Arch. Otolaryngol. Head Neck Surg.* 119:411. (IHC)
4. Goda K, *et al.* 2007. *J. Pharmacol. Exp. Ther.* 320:81. (Block)

Description: CD243 (MDR-1) belongs to the ATP binding cassette (ABC) transporter family. With an approximate molecular mass of 170 kD, it consists of two homologous halves. Each half contains two hydrophobic transmembrane domains (TMDs) and two hydrophilic nucleotide binding domains (NBDs). The TMDs span the membrane six times, forming a chamber with a 12 transmembrane α-helix structure. NBDs drive the transport process through ATP coupling and hydrolysis and are located at the cytoplasmic face of the membrane. CD243 transports various molecules across cellular membranes and is involved in multidrug resistance. MDR-1 is expressed on hematopoietic stem cells, T cells, B cells, and NK cells as well as on many multidrug resistant neoplastic cells. CD243 interacts with Caveolin, RING finger protein 1B, AAP1, p53, Orphan nuclear receptor PX, and cytochrome P450.

Antigen References:

1. Dulucq S, *et al.* 2008. *Blood* 112:2024.
2. Gottesman MM, *et al.* 2009. *Nat. Biotechnol.* 27:546.
3. Andreadis C, *et al.* 2007. *Blood* 109:3409.