

Datasheet: MCA857H

Description:	MOUSE ANTI HUMAN CD243
Specificity:	CD243
Other names:	MULTIDRUG RESISTANCE PROTEIN 1
Format:	Concentrate
Product Type:	Monoclonal Antibody
Clone:	JSB-1
Isotype:	IgG1
Quantity:	1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry		▪		
Immunohistology - Frozen	▪			1/10 - 1/20
Immunohistology - Paraffin (1)	▪			1/10 - 1/20

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1) This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase.

Target Species	Human
Product Form	Concentrated Tissue Culture Supernatant - liquid
Buffer Solution	Phosphate buffered saline
Preservative	0.1% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin
Immunogen	Multi drug resistant chinese hamster ovary cell line, CHrC5
External Database Links	<p>UniProt: P08183 Related reagents</p> <p>Entrez Gene: 5243 ABCB1 Related reagents</p>
Synonyms	MDR1, PGY1

Fusion Partners	Spleen cells from immunised BALB/c mice were fused with the cells of the SP2/0 mouse myeloma cell line.
Specificity	<p>Mouse anti Human CD243 antibody, clone JSB-1 recognizes human CD243, also known as Multidrug resistance protein 1 or P-glycoprotein-1 encoded by the ABCB1 gene. CD243 is a 1280 amino acid multi-pass membrane glycoprotein consisting of two homologous subunits bearing a hydrophobic N-terminal domain, six trans-membrane domains and a C-terminal hydrophilic domain containing a nucleotide binding site. The two sub-units are joined by a 60 amino acid linker domain (Ho et al. 2003). CD243 has a predicted molecular mass of 141.5 kDa and apparent MW of ~190 kDa in Western blotting of human embryonal kidney cell line transfected with the MRP1 gene (Akan et al. 2005). CD243 is widely expressed being found in liver, kidney, small intestine and brain (Koeppell 1998).</p> <p>CD243 plays a critical role in the development of 'multi-drug resistance' during chemotherapy where it appears to control rate of efflux of chemotherapeutic drugs from cells (Scheper et al. 1988). CD243 also appears to play a significant role on the development of gastrointestinal disease (Ho et al. 2003), including conditions such as IBD13 or Inflammatory Bowel disease 13 (Walker-Smith et al. 2009, Brant et al. 2003).</p> <p>Mouse anti Human CD243 antibody, clone JSB-1 has been shown to detect CD243 by Western blotting in C5, a colchicine resistant CHO derived cell line, lysates (Jetté et al. 1993) also in BeWo cell and placental trophoblast lysates (Ushigome et al. 2000). Mouse anti human CD243 has also been used successfully for the detection of P-glycoprotein in teleost fish using immunohistochemistry (Hemmer et al. 1995).</p>
Histology Positive Control Tissue	Liver, kidney or lung
References	<ol style="list-style-type: none"> 1. Scheper, R.J. <i>et al.</i> (1988) Monoclonal antibody JSB-1 detects a highly conserved epitope on the P-glycoprotein associated with multi-drug-resistance. Int J Cancer. 42 (3): 389-94. 2. Bell, D.R. <i>et al.</i> (1985) Detection of P-glycoprotein in ovarian cancer: a molecular marker associated with multidrug resistance. J Clin Oncol. 3 (3): 311-5. 3. Ma, D.D. <i>et al.</i> (1987) Detection of a multidrug resistant phenotype in acute non-lymphoblastic leukaemia. Lancet. 1 (8525): 135-7. 4. Ling, V. (1992) Charles F. Kettering Prize. P-glycoprotein and resistance to anticancer drugs. Cancer. 69 (10): 2603-9. 5. Fukuda, T. <i>et al.</i> (1994) Characterization of newly established adriamycin resistant human leukemic cell lines (KY-ADR1 and KY-ADR2). Leuk Res. 18 (9): 709-15.
Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>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.</p>
Shelf Life	18 months from date of despatch.
Health And Safety Information	<p>Material Safety Datasheet documentation available at: Material Safety Datasheet Documentation #10304 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10304.pdf</p>
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@549 , DyLight@649 , DyLight@680 , DyLight@800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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