PRODUCT DATA SHEET

Product: MDR Sampler Pack

Cat. No.: **MC-898 (0.25 mL each)**

Description:
The MDR Sampler Pack consists of 0.25 mL sample vials of four different MDR monoclonal antibodies:

MDR1, clone JSB-1 (MC-209/MC-166)
LRP/MVP, clone LRP-56 (MC-069/MC-077)
MRP1, clone MRPm6 (MC-202/MC-161)
MRP1, clone MRPr1 (MC-201/MC-160)

Specificity:
Anti-MDR1, clone JSB-1: Has potential value for detection of MDR cells in human tumor samples.

Anti-LRP/MVP, clone LRP-56: Has potential value for detection of LRP-associated non-Pgp MDR in human tumor samples.

Anti-MRP1, clone MRPm6: Has potential value for detection of MRP-related non-Pgp MDR in human tumor samples.

MRP1, clone MRPr1: Has potential value for detection of MRP-related non-Pgp MDR in human tumor samples.

For further information, please see the individual data sheets following.

Format:
0.25 mL of each monoclonal antibody. All individual quantities are sufficient for a minimum of 50 tests.

Storage:
Store at 4°C short term, -20°C long term. Aliquot to avoid freeze/thaw cycles.

Limitations:
For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:
No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.

PRODUCT DATA SHEET

Product: Anti-MDR1 / P-Glycoprotein mAb, clone JSB-1

Cat. No.: **MC-898 (0.25 mL)**

Synonyms:
Anti-P-glycoprotein, anti-MDR1, anti-p170, anti-ABCB1

Specificity:
JSB-1 reacts with a conserved cytoplasmic epitope of the human plasma membrane-associated 170-180 kDa glycoprotein, the expression of which is strongly correlated with the degree of multidrug resistance (MDR) derived MDR cell lines and human MDR cell lines, including cell lines derived from lung, ovaries and B cell lymphomas.

Species Reactivity:
Human and Chinese hamster. Does not cross-react with mouse or rat. Others not tested.

Ig Isotype:
Mouse IgG_1

Hybridoma:
Mouse myeloma (SP2/0) cells fused with immunized mouse (Balb/C) lymph node cells.

Format:
0.25 mL (50 tests) monoclonal antibody at ~250 µg IgG/mL in tissue culture supernatant with protein stabilizer and 0.1% sodium azide. Filtered through a 0.22 µm filter.

Culture medium: RPMI-1640, supplemented with Nutridoma-SR. The medium does not contain serum or added enzymes.

Storage:
Store at 4°C for short term. Aliquot and store at -20°C for long term. Avoid repeated freeze/thaw cycles.

Applications and Suggested Dilutions:
- Flow cytometry: Use at least a 1:10 dilution. Fix cells in 10% (v/v) Lysing Solution, followed by primary antibody and anti-mouse-FITC.
- Immunocytochemistry: Use at least a 1:20 dilution (acetone-fixed cell preparation).
- Immunohistochemistry: acetone-fixed frozen sections or formalin-fixed, paraffin-embedded tissues: Use at a 1:20 dilution.

  Optimal staining results are obtained with routine 2-step ABC or APAAP methods using acetone-fixed cytocentrifuge preparations or cryostat sections. In case the B-5 fixative is used (see below), paraffin-embedded tissue can also be stained with the antibody.
- Western blot: Start optimizing working dilution at 1:10, followed by incubation with anti-mouse HRP.

The optimal dilution for a specific application should be determined by the researcher.

B-5 Fixative Procedure:
Fix tissue in freshly prepared B-5 fixative: add 2 mL of 40% formalin to 20 mL of B-5 Stock Solution. Sections must be dezenkerized to remove mercuric pigment before immunostaining. Dezenkerize by placing slides with sections in Gram's Iodine solution for 5 minutes at room temperature. Wash well in distilled water. Place slides in Sodium Thiosulphate solution for 5 minutes at room temperature. Wash in running tap water for 3 minutes. Place in PBS for further immunochemical procedures.

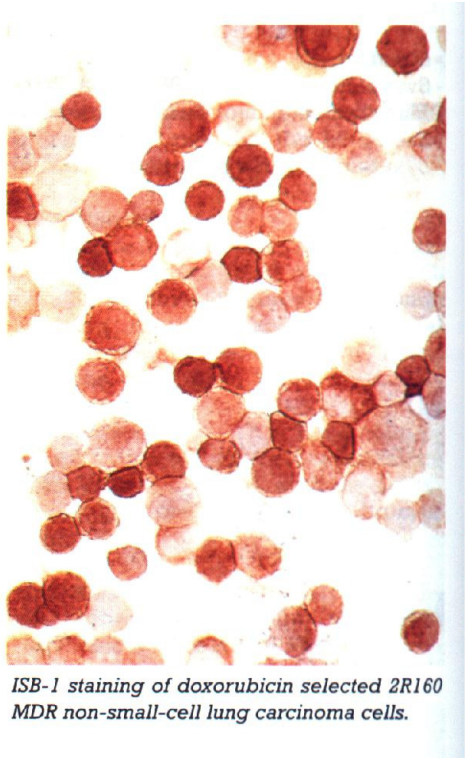
B-5 Stock Solution:
12 g mercuric chloride
2.5 g sodium acetate
Dissolve in 200 mL distilled water.

Gram's Iodine:
1 g I_2
2 g KI
Dissolve in 300 mL distilled water.

PRODUCT DATA SHEET

Cat. No.: **MC-898 (0.25 mL)**

Sodium Thiosulphate Solution:
15 g $Na_2S_2O_3 \cdot 5H_2O$
Dissolve in 300 mL distilled water.



ISB-1 staining of doxorubicin selected 2R160 MDR non-small-cell lung carcinoma cells.

JSB-1 staining of doxorubicin selected 2R160 MDR non-small-cell lung carcinoma cells.

PRODUCT DATA SHEET

P*roduct:* Anti-LRP/MVP (Major Vault Protein) mAb, clone LRP-56

Cat. No.: **MC-898 (0.25 mL)**

Specificity:
LRP-56 reacts with an internal epitope of LRP-protein (P110) an MDR-related antigen which is strongly overexpressed in various human P-glycoprotein-negative MDR tumor cell lines.

Species Reactivity:
Human. Others not tested.

Ig Isotype:
Mouse IgG_{2b}

Immunogen:
110 kDa LRP-protein (P110).

Format:
0.25 mL (50 tests) monoclonal antibody at ~100 µg IgG/mL with protein stabilizer and 0.1% sodium azide.

Storage:
Store at 4°C for short term. Aliquot and store at -20°C for long term. Avoid repeated freeze/thaw cycles.

Applications and Suggested Dilutions:
- Flow cytometry: Use at a 1:50 dilution after fixing cells in 10% (v/v) lysing solution followed by incubation with anti-mouse-FITC.
- Immunocytochemistry: For acetone-fixed cell preparations, use at a 1:20-1:50 dilution.
- Immunohistochemistry: For acetone-fixed frozen sections use at a 1:20-1:50 dilution. For formalin-fixed, paraffin-embedded tissues use at a 1:20 dilution.
- Western blot: Not suitable for Western blot.

The optimal dilution for a specific application should be determined by the researcher.

Limitations:
For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:
No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.

PRODUCT DATA SHEET

Product: Anti-MRP1 mAb, clone MRPm6

Cat. No.: **MC-898 (0.25 mL)**

Specificity:
Reacts with an internal epitope of Multidrug Resistance Associated Protein 1 (MRP1, ABCC1), a 180-195 kDa transmembrane transporter protein which is overexpressed in various human non-P-glycoprotein MDR tumor cell lines. Does not crossreact with human *MDR1* or *MDR3* gene products.

Ig Isotype:
Mouse IgG_1

Species Reactivity:
Human. Others not tested.

Immunogen:
Bacterial fusion protein of MRP containing a segment of 170 amino acids in the carboxy-terminal end and part of the carboxy-proximal nucleotide binding domain of the protein.

Hybridoma:
Mouse myeloma (SP2/0) x immunized mouse lymph node cells (Balb/C).

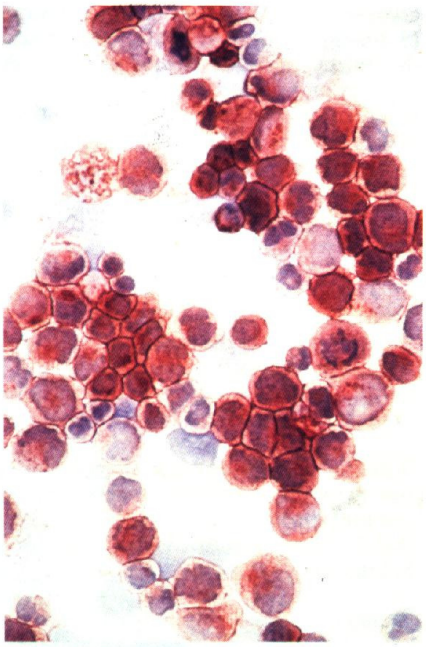
Format:
0.25 mL (50 tests) containing ~250 µg IgG/mL in serum-free tissue culture supernatant with protein stabilizer and 0.1% sodium azide. The antibody solution has been filtered through a 0.22 micron filter.

Culture medium: RPMI-1640, supplemented with Nutridoma-SR. The medium does not contain serum nor added enzymes.

Storage:
Store at 4°C for short term. Aliquot and store at -20°C for long term. Avoid repeated freeze/thaw cycles.

Applications and Suggested Dilutions:
- Immunocytochemistry: (Acetone fixed cell preparations) - Use at a 1:20-1:50 dilution.
- Immunohistochemistry: (Acetone fixed frozen sections) - Use at a 1:20-1:50 dilution. (Formalin-fixed, paraffin-embedded tissues)- Use at a 1:20 dilution. For paraffin-embedded sections a 0.01 M citrate pretreatment, 10 min at 100°C, improves the performance of MRPm6.
- Flow cytometry: After fixing cells in 10% (v/v) Lysing solution, use MRPm6 at a 1:20-1:50 dilution followed by FITC-conjugated anti-mouse IgG secondary antibody.
- Western blotting: Use at a 1:20-1:50 dilution, followed by incubation with anti-mouse-HRP.

The optimal dilution for a specific application should be determined by the researcher.



MRPm6 - staining of adriamycin-selected GLC4/ADR small-cell lung carcinoma cells.

Limitations:
For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:
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PRODUCT DATA SHEET

Product: Anti-MRP1 mAb, clone MRPr1

Cat. No.: **MC-898 (0.25 mL)**

Specificity:
Monoclonal antibody clone MRPr1 recognizes Multidrug Resistance Protein 1 (MRP1, ABCC1), a 180-195 kDa transmembrane transporter protein overexpressed in various human non-P-glycoprotein MDR tumor cell lines. MRPr1 does not cross-react with human *MDR1* or *MDR3* gene products.

Species Reactivity:
Human. Others not tested.

Ig Isotype:
Rat IgG_{2a}

Immunogen:
Bacterial fusion protein of MRP containing a segment of 168 amino acids located in the amino-proximal half of the protein.

Hybridoma:
Mouse myeloma (SP2/0) x immunized rat (outbred Wistar strain) lymph node cells.

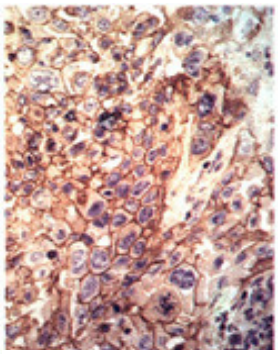
Format:
0.25 mL (50 tests) containing ~250 µg IgG/mL in serum-free tissue culture supernatant with protein stabilizer and 0.1% sodium azide. The antibody solution was filtered through a 0.22 micron filter.

Culture medium: RPMI-1640, supplemented with Nutridoma-SR. The medium does not contain serum nor added enzymes.

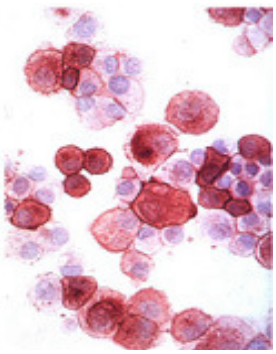
Storage:
Store at 4℃ for short term. Aliquot and store at –20℃ for long term. Avoid repeated freeze/thaw cycles.

Applications and Suggested Dilutions:
- Flow cytometry: After fixing cells in 10% (v/v) Lysing solution, use MRPr1 at a 1:20-1:50 dilution followed by FITC-conjugated anti-rat IgG secondary antibody.
- Immunocytochemistry: For acetone-fixed cell preparation use at a 1:20-1:50 dilution.
- Immunohistochemistry: For acetone-fixed frozen sections, use at a 1:20-1:50 dilution. For formalin-fixed, paraffin-embedded sections, use at a 1:20 dilution. For paraffin-embedded sections, a 0.01 M citrate pretreatment for 10 min. at 100℃ may increase the performance of MRPr1.
- Western blot: Use at a 1:20-1:50 dilution, followed by anti-rat-HRP.

The optimal dilution for a specific application should be determined by the researcher.



MRPr1 staining on frozen section of ovarian carcinoma



MRPr1 staining on adrimycin-selected GLC4/ADR small-cell lung carcinoma cells

Limitations:
For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:
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