abcam

Product datasheet

Anti-MRP1 antibody [EPR21062] ab233383

KO VALIDATED Recombinant RabMAb

19 References 9 Images

Overview

Product name	Anti-MRP1 antibody [EPR21062]
Description	Rabbit monoclonal [EPR21062] to MRP1
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, A549, BxPC-3, SK-OV-3 and HCT 116 whole cell lysates. IHC-P: Human stomach, gastric cancer, lung, lung cancer, esophagus and esophagus cancer tissues. ICC/IF: HeLa, A549 and BxPC-3 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21062

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab233383 in the following tested applications.

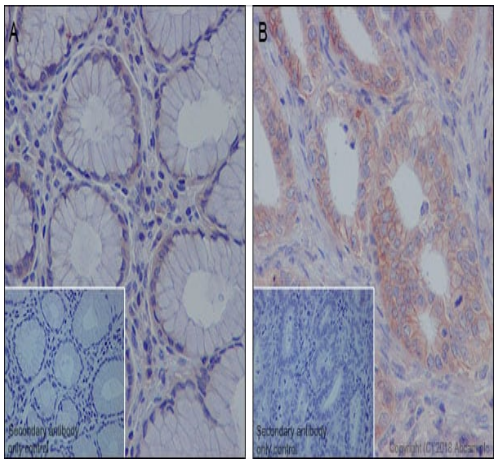
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 250 kDa (predicted molecular weight: 172 kDa).
ICC/IF		1/100.
IHC-P		1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function	Mediates export of organic anions and drugs from the cytoplasm. Mediates ATP-dependent transport of glutathione and glutathione conjugates, leukotriene C4, estradiol-17-beta-o-glucuronide, methotrexate, antiviral drugs and other xenobiotics. Confers resistance to anticancer drugs. Hydrolyzes ATP with low efficiency.
Tissue specificity	Lung, testis and peripheral blood mononuclear cells.
Sequence similarities	Belongs to the ABC transporter superfamily. ABCC family. Conjugate transporter (TC 3.A.1.208) subfamily. Contains 2 ABC transmembrane type-1 domains. Contains 2 ABC transporter domains.
Cellular localization	Cell membrane.

Images

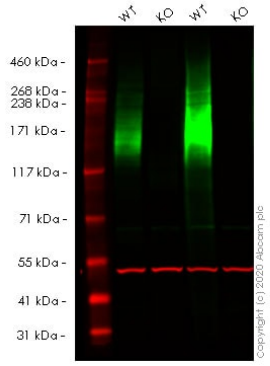


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MRP1 antibody [EPR21062] (ab233383)

Immunohistochemical analysis of paraffin-embedded human gastric cancer (B) and adjacent non-cancerous stomach tissue (A) labeling MRP1 with ab233383 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Membranous and cytoplasmic staining in human gastric cancer tissue (B) with weak staining in its adjacent non-cancerous tissue (A) (PMID:23667609) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Western blot - Anti-MRP1 antibody [EPR21062] (ab233383)

All lanes : Anti-MRP1 antibody [EPR21062] (ab233383) at 1/1000 dilution

Lane 1 : Wild-type HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : MRP1 knockout HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 3 : Wild-type A549 (Human lung carcinoma cell line) whole cell lysate
Lane 4 : MRP1 knockout A549 (Human lung carcinoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

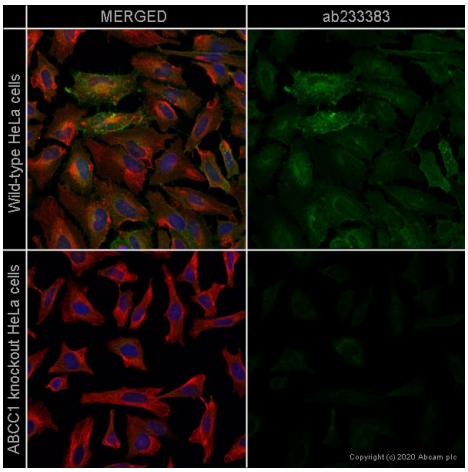
Performed under reducing conditions.

Predicted band size: 172 kDa

Lanes 1-4: Merged signal (red and green). Green - ab233383 observed at 250 kDa. Red - loading control **ab7291** observed at 50 kDa.

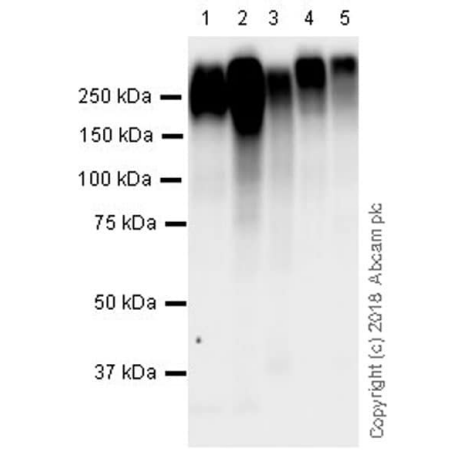
ab233383 Anti-MRP1 antibody [EPR21062] was shown to specifically react with MRP1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265256** (knockout cell lysate **ab257242**) was used. Wild-type and MRP1 knockout samples were subjected to SDS-PAGE. ab233383 and Anti-alpha

Tubulin antibody [DM1A] - Loading Control (**ab7291**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-MRP1 antibody [EPR21062] (ab233383)

ab233383 staining MRP1 in wild-type HeLa cells (top panel) and ABCC1 knockout HeLa cells (**ab265256**) (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab233383 at 1/100 dilution and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Western blot - Anti-MRP1 antibody [EPR21062] (ab233383)

All lanes : Anti-MRP1 antibody [EPR21062] (ab233383) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : A549 (human lung carcinoma cell line) whole cell lysate
Lane 3 : BxPC-3 (human pancreas adenocarcinoma cell line) whole cell lysate
Lane 4 : SK-OV-3 (human ovarian cancer cell line) whole cell lysate
Lane 5 : HCT 116 (human colorectal carcinoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/50000 dilution

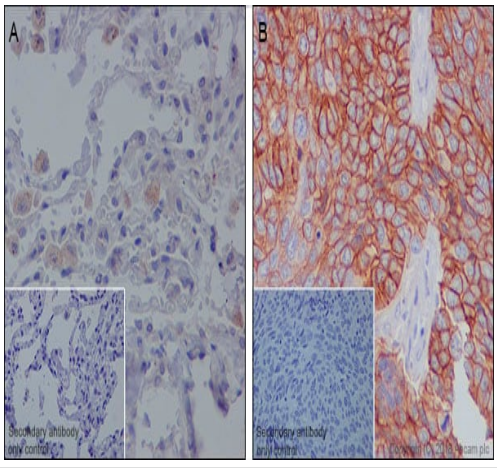
Developed using the ECL technique.

Predicted band size: 172 kDa
Observed band size: 250 kDa

Exposure time: 3 minutes

Blocking and dilution buffer: 5% NFDM/TBST.

The expression profile is consistent with what has been described in the literature (PMID: 22353810).

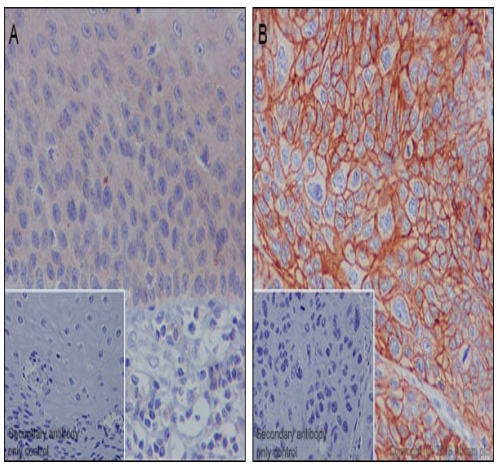


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MRP1 antibody [EPR21062] (ab233383)

Immunohistochemical analysis of paraffin-embedded human lung cancer (B) and adjacent non-cancerous lung tissue (A) labeling MRP1 with ab233383 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Strong membranous and cytoplasmic staining in human lung cancer tissue (B) with weak staining in its adjacent noncancerous tissue (A) (PMID:23667609) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

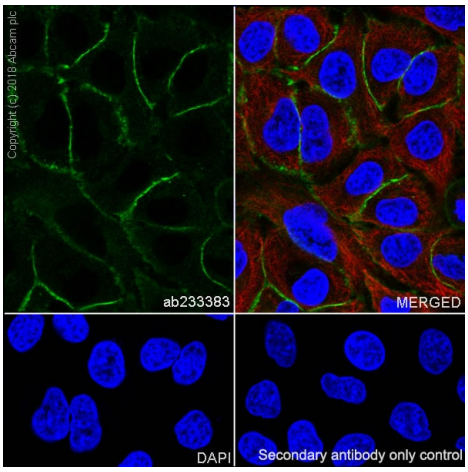


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MRP1 antibody [EPR21062] (ab233383)

Immunohistochemical analysis of paraffin-embedded human esophagus cancer (B) and adjacent non-cancerous esophagus tissue (A) labeling MRP1 with ab233383 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Strong membranous and cytoplasmic staining in human esophageal cancer tissue (B) while staining is weak in its adjacent noncancerous tissue(A) (PMID: 26870278) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

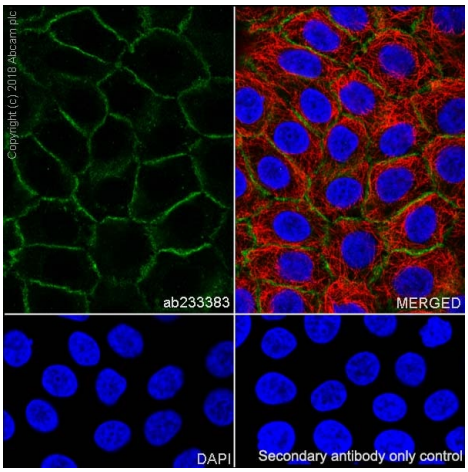
Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Immunocytochemistry/ Immunofluorescence - Anti-MRP1 antibody [EPR21062] (ab233383)

Immunofluorescent analysis of 100% methanol-fixed A549 (human lung carcinoma cell line) cells labeling MRP1 with ab233383 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining in A549 cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-MRP1 antibody [EPR21062] (ab233383)

Immunofluorescent analysis of 100% methanol-fixed BxPC-3 (human pancreas adenocarcinoma cell line) cells labeling MRP1 with ab233383 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining in BxPC-3 cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

Anti-MRP1 antibody [EPR21062] (ab233383)

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