abcam

ab240169

Anti-MRP2 antibody [EPR10998] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR10998
Purification technique	Affinity purification Protein A
Concentration	0.981 - 1.05 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human, Mouse
Dilution info	-

Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/10000
Notes	-

Species	Mouse
Dilution info	1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information ABCC2

Function

ATP-dependent transporter of the ATP-binding cassette (ABC) family that binds and hydrolyzes ATP to enable active transport of various substrates including many drugs, toxicants and endogenous compound across cell membranes. Transports a wide variety of conjugated organic anions such as sulfate-, glucuronide- and glutathione (GSH)-conjugates of endo- and xenobiotics substrates (PubMed:10220572, PubMed:10421658, PubMed:11500505, PubMed:16332456). Mediates hepatobiliary excretion of mono- and bis-glucuronidated bilirubin molecules and therefore play an important role in bilirubin detoxification (PubMed:10421658). Also mediates hepatobiliary excretion of others glucuronide conjugates such as 17beta-estradiol 17-glucosiduronic acid and leukotriene C4 (PubMed:11500505). Transports sulfated bile salt such as taurolithocholate sulfate (PubMed:16332456). Transports various anticancer drugs, such as anthracycline, vinca alkaloid and methotrexate and HIV-drugs such as protease inhibitors (PubMed:10220572, PubMed:11500505, PubMed:12441801). Confers resistance to several anti-cancer drugs including cisplatin, doxorubicin, epirubicin, methotrexate, etoposide and vincristine (PubMed:10220572, PubMed:11500505).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab240169 is the carrier-free version of ab172630.

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	MRP2 also known as ABCC2 or MRP-2 transporter is an ATP-binding cassette transporter. This protein with a molecular mass of about 190 kDa is widely

	expressed in tissues such as the liver kidney and intestine. MRP2 plays a role in drug and metabolite transport moving various organic anions across cellular membranes. It locates to the canalicular membrane of hepatocytes where it functions in secreting conjugated bilirubin and drugs into bile.
Biological function summary	MRP2 contributes to cellular detoxification processes. It does not form part of a larger protein complex but works as an independent entity. MRP2 protein actively transports conjugated substances out of cells protecting tissues from potential damage from toxins drugs and other organic anions. This transporter mediates the excretion of glucuronide sulfate and glutathione conjugates playing an important role in phase III of drug metabolism.
Pathways	MRP2 transporter is integral to xenobiotic metabolism. It interconnects with the conjugation pathways that prepare compounds for excretion. The pathway functions with cytochrome P450 enzymes and other related transport proteins like MDR1 facilitating the secretion of detoxified metabolites. MRP2 activity influences pharmacokinetics and pharmacodynamics by modulating drug disposition and excretion.
Associated diseases and disorders	MRP2 is associated with Dubin-Johnson syndrome and cholestasis. Dubin-Johnson syndrome arises from mutations in the ABCC2 gene leading to defective bilirubin excretion and jaundice. Cholestasis involves impaired bile excretion where MRP2 and possibly related proteins like BSEP play roles in bile salt export. Understanding MRP2 functioning aids in assessing risk and treatment strategies for these conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

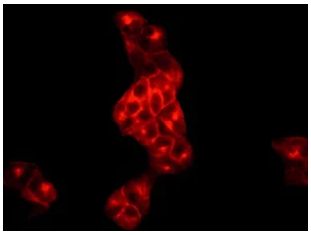
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

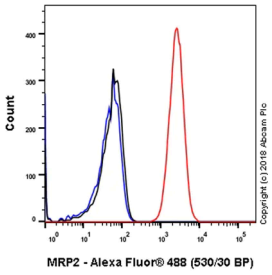
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

MRP2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MRP2 antibody

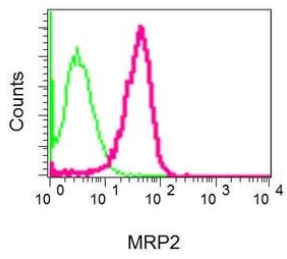
Immunocytochemistry/ Immunofluorescence analysis of A549 cells labeling MRP2 with ab172630 at a 1/250 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab172630).



Flow Cytometry (Intracellular) - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

MRP2 Flow Cytometry (Intracellular) staining using rabbit Anti-MRP2 antibody

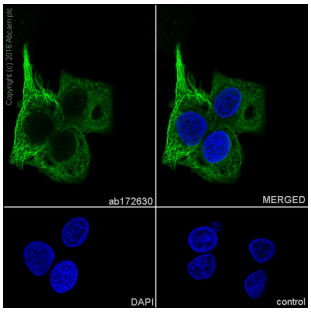
Intracellular Flow Cytometry analysis of A549 (Human lung carcinoma epithelial cell) cells labeling MRP2 with purified ab172630 at 1/70 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Flow Cytometry (Intracellular) - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

MRP2 Flow Cytometry (Intracellular) staining using rabbit Anti-MRP2 antibody

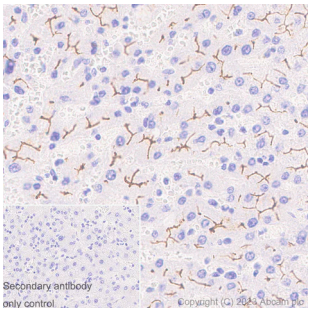
Intracellular flow cytometric analysis of permeabilized A549 cells using ab172630 at a 1/100 dilution (red) or a rabbit IgG (negative) (green).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab172630).



Immunocytochemistry/ Immunofluorescence - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

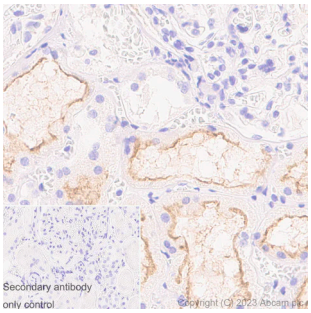
MRP2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MRP2 antibody

Immunocytochemistry/ Immunofluorescence analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling MRP2 with purified ab172630 at 1:100 dilution (7.1 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with None. Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



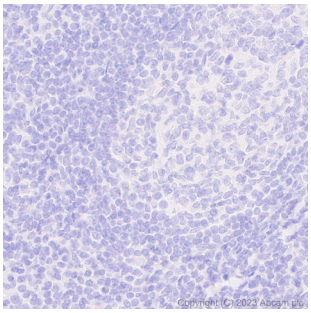
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab172630). Immunohistochemistry analysis of Paraffin-embedded human liver tissue sections labeling MRP2 with ab172630 at 10000 dilution followed by LeicaDS9800 (Bond™ Polymer Refine Detection). Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins. Positive staining on the bile ducts in human liver. The section was incubated with ab172630 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Confocal image showing Mitochondria staining in Jurkat cell line. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



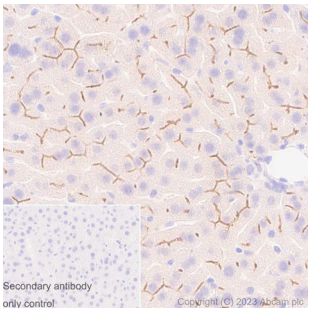
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab172630). Immunohistochemistry analysis of Paraffin-embedded human kidney tissue sections labeling MRP2 with ab172630 at 10000 dilution followed by LeicaDS9800 (Bond™ Polymer Refine Detection). Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins. Positive staining on human kidney. The section was incubated with ab172630 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab172630). Immunohistochemistry analysis of Paraffin-embedded human tonsil tissue sections labeling MRP2 with ab172630 at 10000 dilution followed by LeicaDS9800 (Bond™ Polymer Refine Detection). Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins. Negative control: no staining on the human tonsil. The section was incubated with ab172630 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MRP2 antibody [EPR10998] - BSA and Azide free (ab240169)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab172630). Immunohistochemistry analysis of Paraffin-embedded mouse liver tissue sections labeling MRP2 with ab172630 at 10000 dilution followed by LeicaDS9800 (Bond™ Polymer Refine Detection). Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins. Positive staining on the bile ducts in mouse liver. The section was incubated with ab172630 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.