abcam

ab207732

Anti-BCRP/ABCG2 antibody [EPR20080]

Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732) is a rabbit monoclonal antibody detecting BCRP/ABCG2 in **Western Blot, Flow Cytometry (Intra), IHC-P**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 30 publications

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR20080
Purification technique	Affinity purification Protein A
Concentration	0.9 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	Sample preparation may require optimisation depending on the tissue/cell lysates. We don't recommend this antibody for mouse and rat in WB. In our hands mouse and rat tissues showed additional bands.

Not recommended

Species	Mouse
Dilution info	-
Notes	We don't recommend this antibody for mouse and rat in WB. In our hands mouse and rat tissues showed additional bands.

Species	Rat
Dilution info	-
Notes	We don't recommend this antibody for mouse and rat in WB. In our hands mouse and rat tissues showed additional bands.

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

IHC-P

Tested

Species	Mouse

Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information ABCG2

Function

Broad substrate specificity ATP-dependent transporter of the ATP-binding cassette (ABC) family that actively extrudes a wide variety of physiological compounds, dietary toxins and xenobiotics from cells (PubMed:11306452, PubMed:12958161, PubMed:19506252, PubMed:20705604, PubMed:28554189, PubMed:30405239, PubMed:31003562). Involved in porphyrin homeostasis, mediating the export of protoporphyrin IX (PPIX) from both mitochondria to cytosol and cytosol to extracellular space, it also functions in the cellular export of heme (PubMed:20705604, PubMed:23189181). Also mediates the efflux of sphingosine-1-P from cells (PubMed:20110355). Acts as a urate exporter functioning in both renal and extrarenal urate excretion (PubMed:19506252, PubMed:20368174, PubMed:22132962, PubMed:31003562, PubMed:36749388). In kidney, it also functions as a physiological exporter of the uremic toxin indoxyl sulfate (By similarity). Also involved in the excretion of steroids like estrone 3-sulfate/E1S, 3beta-sulfooxy-androst-5-en-17-one/DHEAS, and other sulfate conjugates (PubMed:12682043, PubMed:28554189, PubMed:30405239). Mediates the secretion of the vitamins riboflavin and biotin into milk (By similarity). Involved in the excretion of the riboflavin-derived compound lumichrome into the intestinal lumen and in its secretion into milk (PubMed:39337371). Extrudes pheophorbide a, a phototoxic porphyrin catabolite of chlorophyll, reducing its bioavailability (By similarity). Plays an important role in the exclusion of xenobiotics from the brain (Probable). It confers to cells a resistance to multiple drugs and other xenobiotics including mitoxantrone, pheophorbide, camptothecin, methotrexate, azidothymidine, and the anthracyclines daunorubicin and doxorubicin, through the control of their efflux (PubMed:11306452, PubMed:12477054, PubMed:15670731, PubMed:18056989, PubMed:31254042). In placenta, it limits the penetration of drugs from the maternal plasma into the fetus (By similarity). May play a role in early stem cell self-renewal by blocking differentiation (By similarity). In inflammatory macrophages, exports itaconate from the cytosol to

the extracellular compartment and limits the activation of TFEB-dependent lysosome biogenesis involved in antibacterial innate immune response.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P) in Human, Mouse, Rat samples.

What is the molecular weight of BCRP/ABCG2?
Anti-BCRP/ABCG2 [EPR20080] (ab207732) specifically detects a band for BCRP/ABCG2 (UniProt: Q9UNQ0) at a molecular weight of 72kDa.

Trusted by the scientific community
Anti-BCRP/ABCG2 [EPR20080] (ab207732) was first used in a scientific publication in 2017 and has been cited over 30 times in peer-reviewed journals.

Reviewed by scientists
Anti-BCRP/ABCG2 [EPR20080] (ab207732) has over 5 independent reviews from customers.

Specificity confirmed
The specificity of Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732) has been confirmed by Western blot testing in ABCG2 Knockout A549 cell line, ab259773.

Other related products
We have a range of other formats of antibody clone [EPR20080] also available for your convenience: ab207732, Carrier free - ab232517

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

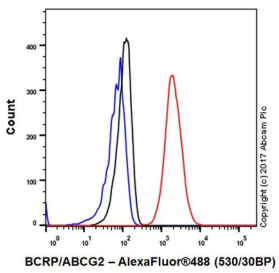
We do not recommend this combination. It is not covered by our product promise.

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.

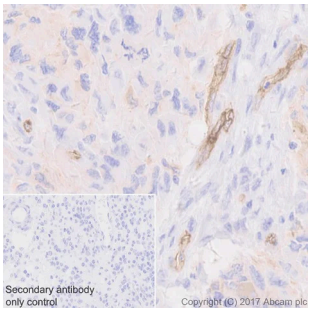
10 product images



Flow Cytometry (Intracellular) - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Flow Cytometry (Intracellular) staining using rabbit Anti-BCRP/ABCG2 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed A549 (human lung carcinoma cell line) cell line labeling BCRP/ABCG2 with ab207732 at 1/100 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.

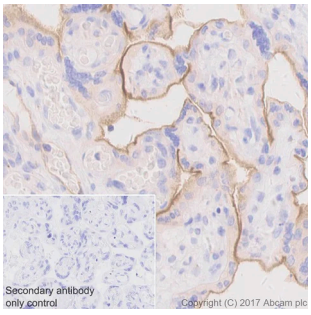


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BCRP/ABCG2 antibody

Immunohistochemical analysis of paraffin-embedded human glioma tissue labeling BCRP/ABCG2 with ab207732 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on capillaries of human glioma (PMID: 20216549). 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 with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

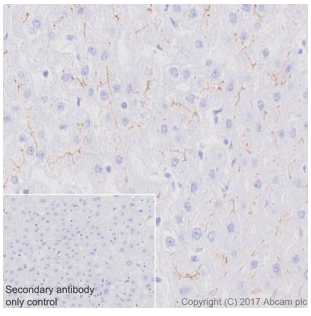


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BCRP/ABCG2 antibody

Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling BCRP/ABCG2 with ab207732 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on human placenta (PMID: 12237881). 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 with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



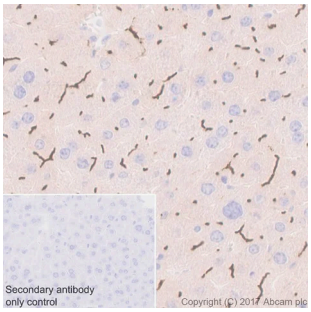
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BCRP/ABCG2 antibody

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling BCRP/ABCG2 with ab207732 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on biliary canaliculis of human liver (PMID: 12237881). 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 with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

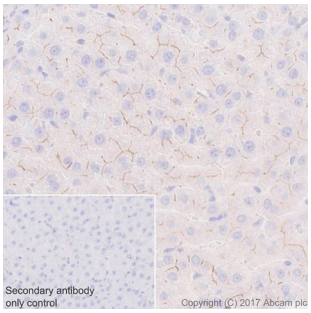


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BCRP/ABCG2 antibody

Immunohistochemical analysis of paraffin-embedded mouse liver tissue labeling BCRP/ABCG2 with ab207732 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on biliary canaliculis of mouse liver (PMID: 12237881). 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 with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

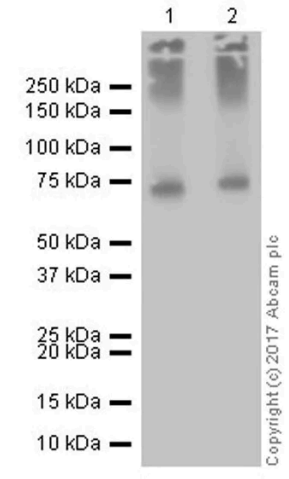


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BCRP/ABCG2 antibody

Immunohistochemical analysis of paraffin-embedded rat liver tissue labeling BCRP/ABCG2 with ab207732 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on biliary canaliculis of rat liver (PMID: 12237881). 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 with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

Blocking/Dilution buffer: 5% NFDM/TBST.
For Lysate preparation protocol, please refer to the protocol section of the website and/or here.

All lanes:
Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732) at 1/1000 dilution

Lane 1:
Human placenta, the lysate was prepared in RIPA lysate buffer and boiled before loading at 10 µg

Lane 2:
Human placenta, the lysate was prepared in RIPA lysate buffer and was not boiled before loading at 10 µg

Secondary

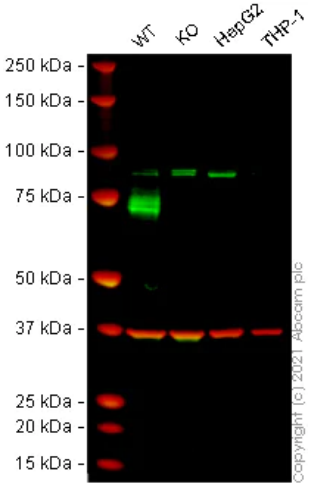
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 72 kDa

Observed band size: 75 kDa

Exposure time: 15s



Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Western blot staining using rabbit Anti-BCRP/ABCG2 antibody

Lanes 1 - 4: Merged signal (red and green). Green - ab207732 observed at 70 kDa. Red - loading control ab8245 (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.
ab207732 was shown to react with BCRP/ABCG2 in wild-type A549 cells in Western blot with loss of signal observed in ABCG2 knockout cell line ab259773 (ABCG2 knockout cell lysate ab259778). Wild-type A549 and ABCG2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab207732 and ab8245 (Mouse anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.

All lanes:
Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732) at 1/1000 dilution

Lane 1:
Wild-type A549 cell lysate at 20 µg

Lane 2:
ABCG2 knockout A549 cell lysate at 20 µg

Lane 2:
Western blot - Human ABCG2 knockout A549 cell line (ab259773)

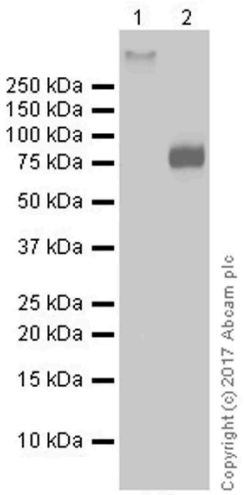
Lane 3:
HepG2 cell lysate at 20 µg

Lane 4:
THP-1 cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 72 kDa

Observed band size: 70 kDa



Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

Blocking/Dilution buffer: 5% NFDM/TBST.
For Lysate preparation protocol, please refer to the protocol section of the website and/or here.

All lanes:
Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732) at 1/1000 dilution

Lane 1:
A549 (human lung carcinoma cell line) whole cell lysate, the lysate was prepared in RIPA lysate buffer and boiled before loading at 20 µg

Lane 2:
A549 (human lung carcinoma cell line) whole cell lysate, the lysate was prepared in RIPA lysate buffer and was not boiled before loading at 20 µg

Secondary

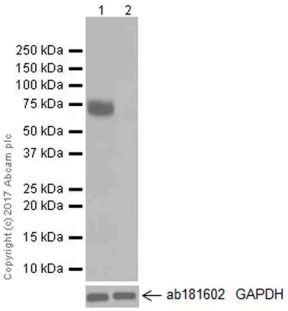
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 72 kDa

Observed band size: 75 kDa

Exposure time: 3s



Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732)

BCRP/ABCG2 Western blot staining using rabbit Anti-BCRP/ABCG2 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
For Lysate preparation protocol, please refer to the protocol section of the website and/or here.

Negative control: Huh7 (PMID: 26327240, PMID: 18820285).

All lanes:
Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] (ab207732) at 1/1000 dilution

Lane 1:
HepG2 (human liver hepatocellular carcinoma cell line), whole cell lysate, the lysate was prepared in 1% SDS Hot Lysate buffer and boiled before loading at 20 µg

Lane 2:
Huh7 (human liver hepatocellular carcinoma epithelial cell line), whole cell lysate, the lysate was prepared in 1% SDS Hot Lysate buffer and boiled before loading at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 72 kDa

Observed band size: 75 kDa

Exposure time: 1min

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