abcam

Product datasheet

Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free ab232517

KO VALIDATED Recombinant RabMAb

8 Images

Overview

Product name	Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free
Description	Rabbit monoclonal [EPR20080] to BCRP/ABCG2 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HepG2, THP-1 and Wild-type A549 cell lysate. IHC-P: Human placenta tissue.
General notes	ab232517 is the carrier-free version of **ab207732**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20080
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab232517 in the following tested applications.

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

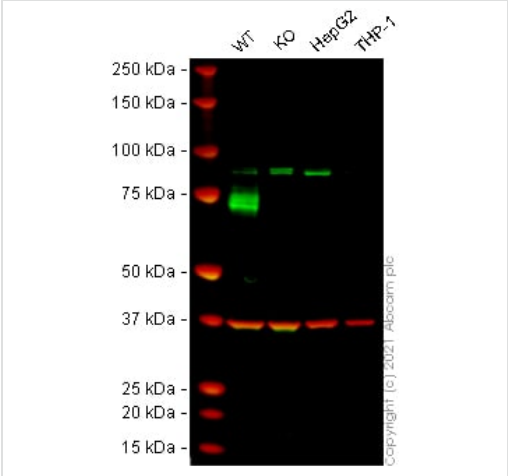
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376**-Rabbit monoclonal IgG (Low endotoxin, Azide free), is suitable for use as an isotype control with this antibody.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 75 kDa (predicted molecular weight: 72 kDa). 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.

Target

Function	Xenobiotic transporter that may play an important role in the exclusion of xenobiotics from the brain. May be involved in brain-to-blood efflux. Appears to play a major role in the multidrug resistance phenotype of several cancer cell lines. When overexpressed, the transfected cells become resistant to mitoxantrone, daunorubicin and doxorubicin, display diminished intracellular accumulation of daunorubicin, and manifest an ATP-dependent increase in the efflux of rhodamine 123.
Tissue specificity	Highly expressed in placenta. Low expression in small intestine, liver and colon.
Sequence similarities	Belongs to the ABC transporter superfamily. ABCG family. Eye pigment precursor importer (TC 3.A.1.204) subfamily. Contains 1 ABC transmembrane type-2 domain. Contains 1 ABC transporter domain.

Post-translational modifications	Glycosylation-deficient ABCG2 is normally expressed and functional.
Cellular localization	Cell membrane.

Images



Western blot - Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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

Lane 1 : Wild-type A549 cell lysate
Lane 2 : ABCG2 knockout A549 cell lysate
Lane 3 : HepG2 cell lysate
Lane 4 : THP-1 cell lysate

Lysates/proteins at 20 µg per lane.

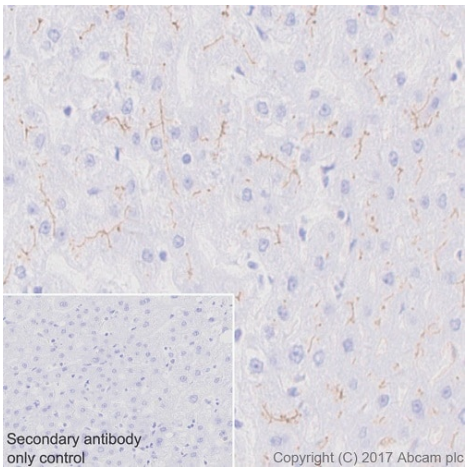
Performed under reducing conditions.

Predicted band size: 72 kDa
Observed band size: 70 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab207732**).

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.



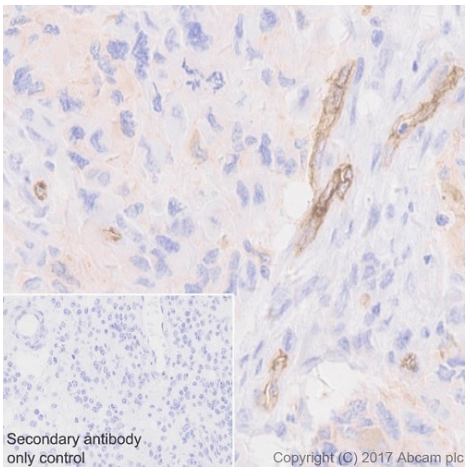
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207732**).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



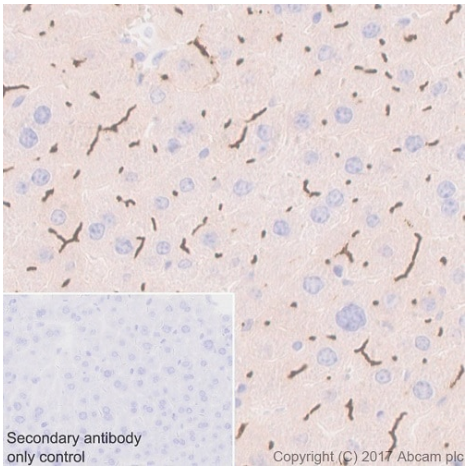
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207732**).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



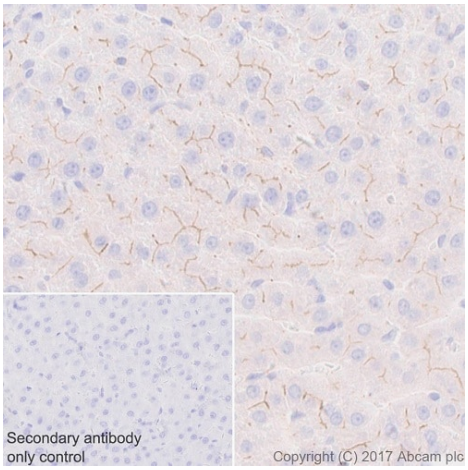
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207732**).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



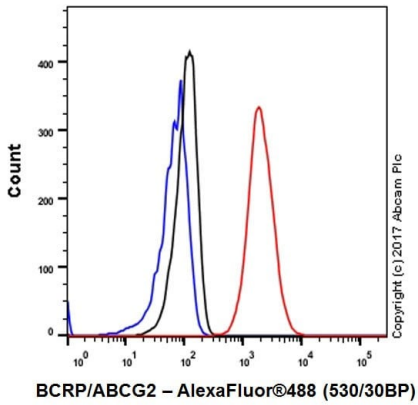
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207732**).

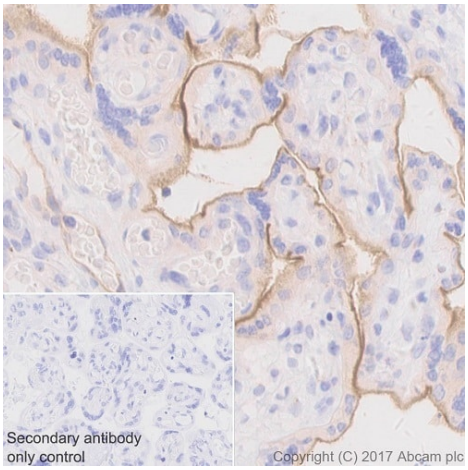
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207732**).



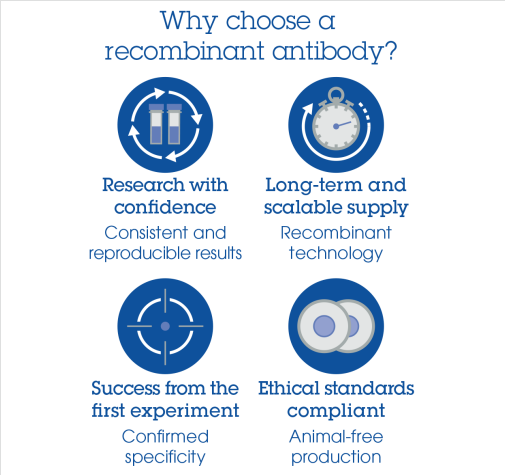
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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) 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207732**).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Anti-BCRP/ABCG2 antibody [EPR20080] - BSA and Azide free (ab232517)

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