abcam

Product datasheet

Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free ab216656

KO VALIDATED Recombinant RabMAb

7 References 8 Images

Overview

Product name	Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free
Description	Rabbit monoclonal [EPR10364-57] to P Glycoprotein - BSA and Azide free
Host species	Rabbit
Specificity	P-glycoprotein 1 (also known as Multidrug resistance protein 1) has a predicted molecular weight of 141 kDa, however it has 3 potential glycosylation sites (N-linked) which may affect the migration of the protein. In our hands this antibody detects a predominant protein band migrating in the region of 180-200 kDa and typically will demonstrate a smear on the membrane in the region of the 150 – 300 kDa due to the glycosylation profile of the protein. It may be necessary to optimise your cell or tissue lysis protocol to efficiently extract P-glycoprotein 1 as it is a multi-pass membrane protein. Abcam recommends not boiling the sample after lysis. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment aa 350-750. The exact sequence is proprietary. Database link: **P08183**
Positive control	WB: 293T, HeLa, HepG2 and 293T cell lysates; human fetal brain tissue lysate; mouse brain, heart, kidney and spleen tissue lysates; rat brain, heart, kidney and spleen tissue lysates. IHC-P: Human hepatocellular carcinoma, brain and kidney tissues.
General notes	ab216656 is the carrier-free version of **ab170904**. 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: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR10364-57
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab216656 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		Use at an assay dependent concentration. Predicted molecular weight: 141 kDa. For optimal detection Abcam recommends not boiling the sample after lysis.
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. See **IHC antigen retrieval protocols**.

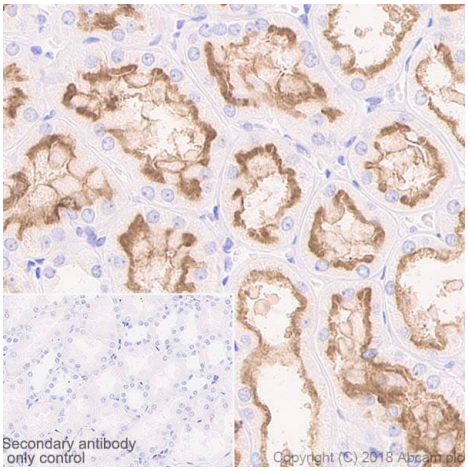
Application notes Is unsuitable for ICC/IF.

Target

Function Energy-dependent efflux pump responsible for decreased drug accumulation in multidrug-resistant cells.

Tissue specificity	Expressed in liver, kidney, small intestine and brain.
Involvement in disease	Genetic variations in ABCB1 are associated with susceptibility to inflammatory bowel disease type 13 (IBD13) [MIM:612244]. Inflammatory bowel disease is characterized by a chronic relapsing intestinal inflammation. It is subdivided into Crohn disease and ulcerative colitis phenotypes. Crohn disease may involve any part of the gastrointestinal tract, but most frequently the terminal ileum and colon. Bowel inflammation is transmural and discontinuous; it may contain granulomas or be associated with intestinal or perianal fistulas. In contrast, in ulcerative colitis, the inflammation is continuous and limited to rectal and colonic mucosal layers; fistulas and granulomas are not observed. Both diseases include extraintestinal inflammation of the skin, eyes, or joints. Crohn disease and ulcerative colitis are commonly classified as autoimmune diseases.
Sequence similarities	Belongs to the ABC transporter superfamily. ABCB family. Multidrug resistance exporter (TC 3.A.1.201) subfamily. Contains 2 ABC transmembrane type-1 domains. Contains 2 ABC transporter domains.
Cellular localization	Membrane.

Images

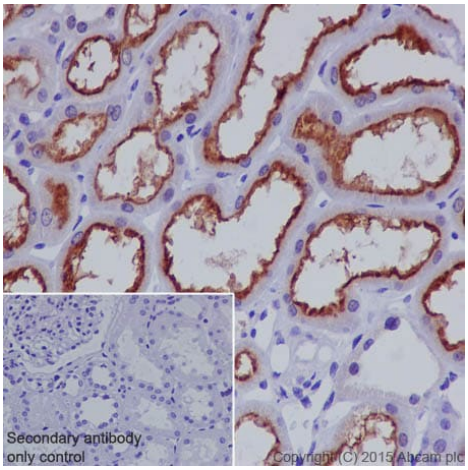


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labeling P Glycoprotein with purified **ab170904** at 1:1200 dilution (0.24 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0) ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Hematoxylinwas used as a counterstain.

Negative control: PBS instead of the primary antibody (inset).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170904**).

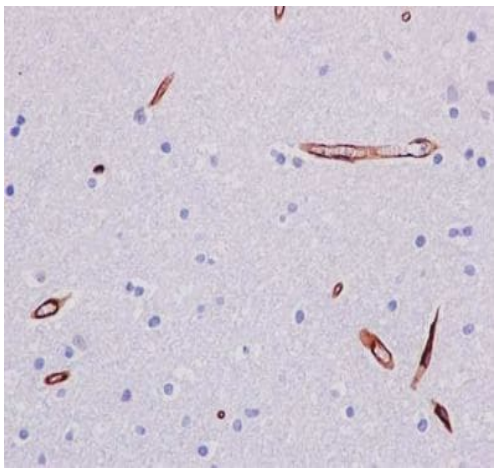


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

Immunohistochemical staining of paraffin embedded human kidney with purified **ab170904** at a working dilution of 1/100. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. Counterstained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.

PBS was used instead of the primary antibody as the negative control (inset).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170904**).

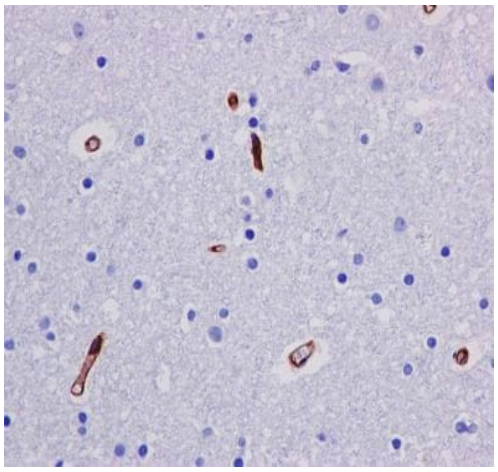


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human brain tissue labeling P Glycoprotein with purified **ab170904** at 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody.

Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170904**).

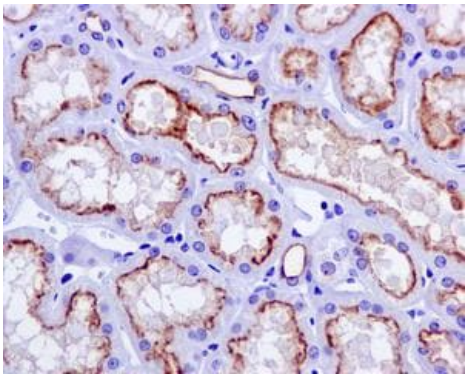


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human brain tissue labeling P Glycoprotein with unpurified **ab170904** at 1/20. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody.

Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170904**).

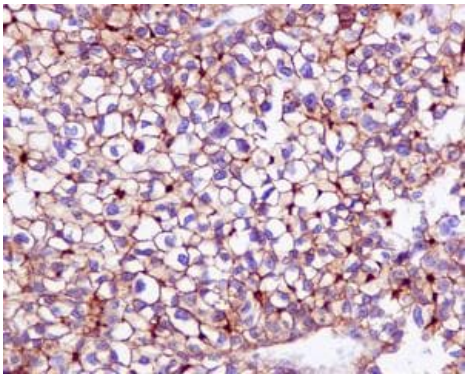


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis human kidney tissue labeling P Glycoprotein with unpurified **ab170904** at 1/250 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170904**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

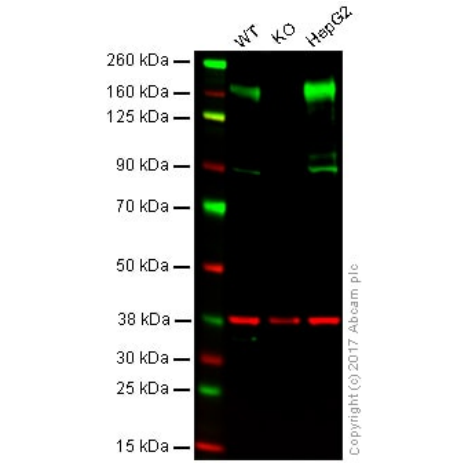


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

This IHC data was generated using the same anti-P Glycoprotein antibody clone, EPR10364-57, in a different buffer formulation (cat# **ab170904**).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular carcinoma tissue labelling P Glycoprotein with unpurified **ab170904** at 1/250 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

This WB data was generated using the same anti-P Glycoprotein antibody clone, EPR10364-57, in a different buffer formulation (cat# **ab170904**).

Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: P Glycoprotein knockout HAP1 whole cell lysate (20 µg)
Lane 3: HepG2 whole cell lysate (20 µg)

Lanes 1 - 3: Merged signal (red and green). Green - **ab170904** observed at 160 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab170904 was shown to specifically react with P Glycoprotein when P Glycoprotein knockout samples were used. Wild-type and P Glycoprotein knockout samples were subjected to SDS-PAGE. Ab170904 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1 ug/ml and 1/10000 dilution respectively. Blots were developed 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 1/10000 dilution for 1 hour at room temperature before imaging.

Anti-P Glycoprotein antibody [EPR10364-57] - BSA and Azide free (ab216656)

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