

# Anti-P Glycoprotein antibody [EPR10364] - BSA and Azide free ab271921

KO VALIDATED Recombinant RabMAb

5 Images

### Overview

<b>Product name</b>	Anti-P Glycoprotein antibody [EPR10364] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR10364] to P Glycoprotein - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Specificity</b>	<p>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 <a href="#">ab168337</a> 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.</p>
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human P Glycoprotein.
<b>Positive control</b>	HeLa, HepG2, 293T, C6 and Human fetal brain and Mouse brain lysates, Human kidney & liver tissue
<b>General notes</b>	<p>The mouse and rat recommendation is based on the WB results. This antibody may not be suitable for IHC with mouse or rat samples.</p> <p>ab271921 is the carrier-free version of <a href="#">ab168337</a>.</p> <p>Our <b>carrier-free</b> 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.</p> <p>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.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the</p>

need for antibody preparation. Maxpar<sup>®</sup> 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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR10364
<b>Isotype</b>	IgG

## Applications

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**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab271921 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
<b>IHC-P</b>		Use at an assay dependent concentration. See <a href="#">IHC antigen retrieval protocols</a> .
<b>WB</b>		Use at an assay dependent concentration. Predicted molecular weight: 141 kDa. For optimal detection Abcam recommends not boiling the sample after lysis.

## Target

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<b>Function</b>	Energy-dependent efflux pump responsible for decreased drug accumulation in multidrug-resistant cells.
<b>Tissue specificity</b>	Expressed in liver, kidney, small intestine and brain.
<b>Involvement in disease</b>	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.

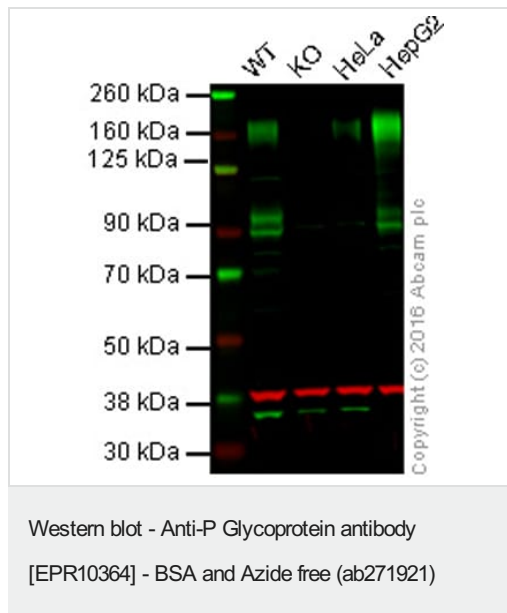
Contains 2 ABC transmembrane type-1 domains.

Contains 2 ABC transporter domains.

### Cellular localization

Membrane.

### Images



**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

**Lane 2:** P glycoprotein knockout HAP1 cell lysate (20 µg)

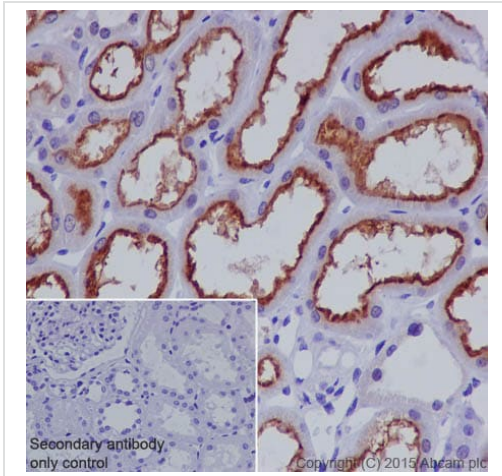
**Lane 3:** HeLa cell lysate (20 µg)

**Lane 4:** HepG2 cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - [ab168337](#) observed at 160 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

[ab168337](#) was shown to recognize P glycoprotein when P glycoprotein knockout samples were used, along with additional cross-reactive bands. Wild-type and P glycoprotein knockout samples were subjected to SDS-PAGE. [ab168337](#) and [ab8245](#) (loading control to GAPDH) were diluted 1/500 and 1/10 000 respectively and incubated overnight at 4°C. 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 1/10000 dilution for 1 hour at room temperature before imaging.

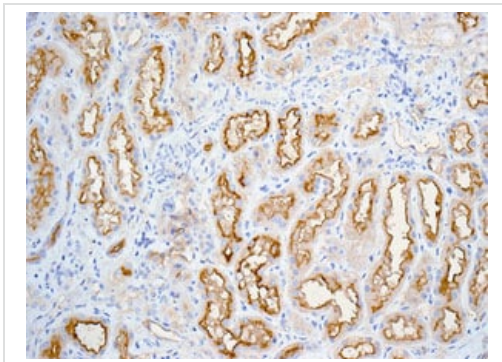
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab168337](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364] - BSA and Azide free (ab271921)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labeling P Glycoprotein with purified **ab168337** at 1/100 dilution (14 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, PH9. Hematoxylin was used to counter stain. **ab97051**, a Goat Anti-Rabbit IgG H&L (HRP) secondary antibody was used at 1/500 dilution. PBS instead of the primary antibody was used as the negative control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab168337**).

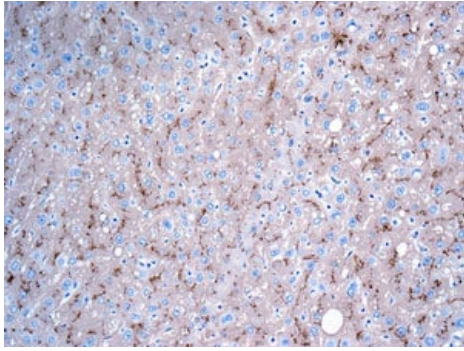


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364] - BSA and Azide free (ab271921)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling P Glycoprotein with unpurified **ab168337** at 1/50 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab168337**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [EPR10364] - BSA and Azide free (ab271921)

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling P Glycoprotein with unpurified **ab168337** at 1/50 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab168337**).

### Why choose a recombinant antibody?



Anti-P Glycoprotein antibody [EPR10364] - BSA and Azide free (ab271921)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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