Overview

Product name  Anti-P Glycoprotein antibody [JSB-1]
Description  Mouse monoclonal [JSB-1] to P Glycoprotein
Host species  Mouse
Specificity  This antibody is specific for the MDR1 isoform of P Glycoprotein which is only found in the plasma membrane. It does not cross-react with MDR3. It has been shown to cross-react with Pyruvate Carboxylase, an abundant mitochondrial enzyme (130 kDa), on both immunoblots and immunohistochemical tissue sections. Weak homogeneous, cytoplasmic, or granular patterns of reactivity may represent staining of the PC cross-reactive epitope rather than positive staining for P glycoprotein.
Tested applications  Suitable for: ELISA, ICC, IHC-P, IP, Flow Cyt
Species reactivity  Reacts with: Mouse, Rat, Human
Immunogen  Multidrug-resistant Chinese hamster ovary cell line (CHrC5).
Epitope  Cytoplasmic domain present on the MDR1 isoform of P Glycoprotein. This epitope is strongly conserved in mammals.
Positive control  Drug-sensitive parental cell lines and their multidrug-resistant derivatives. Human liver (positive staining detected along luminal surfaces of bilecanaliculi) or human colon (positive staining localized to luminal surface of secretory epithelium).
General notes  This antibody is reported to work in WB according to the literature (PubMed 22389470 and 17961285). Due to customer feedback of difficulty in WB, we are no longer able to guarantee ab3366 in WB.

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer  Constituents: 0.0268% PBS, 1% BSA
Purity  Protein A purified
Clonality  Monoclonal
Clone number  JSB-1
Isotype  IgG1

24 References  2 Images
Applications

Our Abpromise guarantee covers the use of ab3366 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>ICC</td>
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<td>Use at an assay dependent concentration.</td>
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<tr>
<td>IHC-P</td>
<td>1/40. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. (EDTA, pH 8-9 for example). 20-60 minutes at room temperature.</td>
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<tr>
<td>IP</td>
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<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent concentration. PubMed: 18630504 ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
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</tbody>
</table>

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


Cellular localization

Membrane.

Images
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P Glycoprotein antibody [JSB-1] (ab3366)

ab3366 (4µg/ml) staining p Glycoprotein in human liver, using an automated system (DAKO Autostainer Plus). Using this protocol there is a cell membrane staining of a subpopulation of hepatocytes. Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

Immunocytochemistry/ Immunofluorescence - Anti-P Glycoprotein antibody [JSB-1] (ab3366)

Immunocytochemical analysis of rat spinal cord endothelial cells (RSCECs) labeling P Glycoprotein with ab3366 at 3.35ug/ml.

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