Overview

Product name: Anti-BCRP/ABCG2 antibody [BXP-21] ab3380
Description: Mouse monoclonal [BXP-21] to BCRP/ABCG2
Host species: Mouse
Specificity: This antibody does not react with the human MDR1, MRP1 and MRP2 gene products.
Tested applications: Suitable for: ICC, IHC-P, IHC-Fr, Flow Cyt, ICC/IF
Species reactivity: Reacts with: Human
Immunogen: Fusion protein composed of E. Coli maltose binding protein and BCRP peptide [126 amino acids, 271-396 AA of BCRP, GeneBank accession #AF098951].
Positive control: Caco Cell lysate (see second reference cited).
General notes: For the WB, please note the subcellular localization and distribution of the BCRP/ABCG2 in Normal Human Tissues: PMID:11309308

We have received mixed feedback from customers, the antibody showed 45-50 kDa band size in A549 and Caco2 cell lines against predicted size of 72kDa. In response to data we have received we no longer guarantee this antibody for western blot. ABCG2 is a multi-pass membrane protein so for troubleshooting we would recommend heating the samples at 60-70°C for 15-20 minutes instead of boiling and as this protein exists as homodimer so complete reduction of samples is highly recommended. In case of any other question please email scientific support team.

Properties

Form: Liquid
Storage buffer: Constituent: 0.7% BSA
Purity: Tissue culture supernatant
Primary antibody notes: Breast Cancer Resistance Protein (BCRP) is a 70 kDa ATP-Binding Cassette membrane transport protein involved in multidrug resistance. BCRP may be over-expressed in cancer cell lines selected with doxorubicin / verapamil, topotecan or mitoxantrone.
Clonality: Monoclonal
Clone number: BXP-21
Isotype: IgG2a

Applications

Our Abpromise guarantee covers the use of ab3380 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<tr>
<th>Application</th>
<th>Abreviews</th>
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<tbody>
<tr>
<td>ICC</td>
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<td>1/20 - 1/50. Acetone fixed cells.</td>
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<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/100.</td>
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<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/20 - 1/40.</td>
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| Flow Cyt    |           | Use at an assay dependent concentration. PubMed: 24136221
              ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |
| ICC/IF      | ⭐⭐⭐⭐⭐    | Use at an assay dependent concentration. |

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
Immunohistochemical analysis of Human breast cancer tissue, staining BCRP/ABCG2 with ab3380.

Tissue was fixed with formaldehyde, blocked with 3% H2O2 for 5 minutes at 20°C and permeabilized with PBS-Tween; antigen retrieval was by heat mediation in a citrate buffer (pH 6). Samples were incubated with primary antibody (1/200 in PBS-Tween) for 1 hour at 20°C. A biotinylated goat anti-mouse polyclonal IgG was used as the secondary antibody.

ab3380 staining BCRP/ABCG2 in MCF7 human breast cancer cells by Immunocytochemistry/Immunofluorescence. Cells were fixed in paraformaldehyde and permeabilized using 0.1% Triton X-100. Samples were then blocked using 10% serum for 2 hours at 25°C, then incubated with ab3380 at a 1/50 dilution for 12 hours at 4°C. A rabbit anti-mouse polyclonal conjugated to Alexa Fluor 594 was used as the secondary at a 1/50 dilution.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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