Product datasheet

Anti-BCRP/ABCG2 antibody [BXP-21] ab3380

Overview

Product name: Anti-BCRP/ABCG2 antibody [BXP-21]
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].
General notes: For the WB, please note the subcellular localization and distribution of the BCRP/ABCG2 in Normal Human Tissues: PMID:11309308

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.

<table>
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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ICC</td>
<td></td>
<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.

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