**Product datasheet**

**Anti-BCRP/ABCG2 antibody [BXP-53] ab24115**

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**Overview**

**Product name**
Anti-BCRP/ABCG2 antibody [BXP-53]

**Description**
Rat monoclonal [BXP-53] to BCRP/ABCG2

**Host species**
Rat

**Tested applications**
Suitable for: ICC, WB, Flow Cyt, IHC-P, ICC/IF

Unsuitable for: EMSA

**Species reactivity**
Reacts with: Mouse, Human

**Immunogen**
Fusion protein containing the E. coli maltose binding protein and a fragment corresponding to amino acids 221-394 of Mouse BCRP/ABCG2

**Epitope**
Reacts with an internal epitope of BCRP/ABCG2.

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**Properties**

**Form**
Liquid

**Storage instructions**

**Storage buffer**
Preservative: 0.02% Sodium azide
Constituents: 0.1% BSA, PBS

**Purity**
Tissue culture supernatant

**Clonality**
Monoclonal

**Clone number**
BXP-53

**Isotype**
IgG2a

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**Applications**

Our Abpromise guarantee covers the use of ab24115 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>
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<tbody>
<tr>
<td>ICC</td>
<td></td>
<td>1/20 - 1/50. Acetone fixed cytospin.</td>
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</table>
Is unsuitable for EMSA.

**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 (TC3.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.

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<td>WB</td>
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<td>1/20 - 1/50. Detects a band of approximately 75 kDa (predicted molecular weight: 72 kDa).</td>
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<tr>
<td>Flow Cyt</td>
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<td>Use 1-2µg for 10⁶ cells. (1/10 dilution on bone marrow and kidney tissue).</td>
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*ab18450* - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

IHC-P
Use at an assay dependent concentration. PubMed: 20472681

ICC/IF
Use at an assay dependent concentration.

**Application notes**
Is unsuitable for EMSA.

**Target**

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**Images**
All lanes: Anti-BCRP/ABCG2 antibody [BXP-53] (ab24115) at 1 µg/ml

Lane 1: Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate
Lane 2: HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Peroxidase Conjugated AffiniPure Rabbit Anti-Rat IgG (H+L) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 72 kDa
Observed band size: 75 kDa
Additional bands at: 37 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 20 minutes

BCRP/ABCG2 contains a potential glycosylation site (SwissProt) which may explain its migration at a higher molecular weight than predicted.
Overlay histogram showing HEK293 cells stained with ab24115 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS/10% normal goat serum/0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab24115, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rat IgG (Fc) (ab96971) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rat IgG2a [aRTK2758] (ab18450, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a significantly decreased signal in HEK293 cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.

ab24115 staining BCRP/ABCG2 in murine mesenchymal stem cells by Immunocytochemistry/Immunofluorescence. The cells were fixed in formaldehyde, permeabilised in 0.1% Triton X and then blocked using 1% serum for 1 hour at 25°C. Samples were then incubated with primary antibody at 1/25 for 15 hours at 25°C. The secondary antibody used was a donkey anti-rat IgG conjugated to an Alexa Fluor® used at a 1/100 dilution.

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